

MILLIMAN TECHNICAL PROPOSAL

REDACTED

State of Nebraska State Purchasing Bureau

RFP#: 5868 Z1

Submitted by Milliman, Inc.
July 11, 2018

Robert M. Damler, FSA, MAAA
Principal and Consulting Actuary
Milliman, Inc.
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July 11, 2018

Nancy Storant
Teresa Fleming
State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, NE 68508

Ms. Storant and Ms. Fleming:

Please accept this document as Milliman's request to identify the information described herein ("Proprietary Information") as proprietary information and to protect such Proprietary Information from disclosure pursuant to Nebraska's public records statute. The Proprietary Information contained in Milliman's response to RFP 5868 Z1 ("RFP") falls into three general categories: (1) description of Milliman's DRIVE™ tool; (2) Milliman's organizational structure and internal risk mitigation processes, and (3) the roadmap pursuant to which Milliman will provide services if Milliman is awarded the RFP. If released, the Proprietary Information would give Milliman's competitors an advantage and such disclosure serves no public purpose.

This copy of our proposal has all proprietary information redacted with non-proprietary information clearly visible. Our intent was to provide the State with a copy that can easily be uploaded to the State's website or shared with a requestor.

The named competitors that would benefit from the proprietary information include:

- Mercer Government Solutions
- Aon Consulting
- Deloitte
- Optumas
- Wakely Consulting
- Navigant Consulting

(1) DRIVE™

Milliman has developed a proprietary application, the Dashboard for Research, Insight, and Validation of Experience (DRIVE™), which is an internet based tool that summarizes and compares health plan encounter data with health plan financial reports. DRIVE™ is a value add to Milliman's clients and Milliman's use of DRIVE™ differentiates Milliman from its competitors as Milliman's competitors have not yet replicated an application that provides the same information as DRIVE™. For this reason, it is crucial to Milliman to prevent DRIVE™ from being generally known to its competitors. If DRIVE™ does become generally known to Milliman's competitors such knowledge could cause substantial harm to Milliman's business in that competitors could develop similar tools thus minimizing the value that DRIVE™ provides. The references to DRIVE have been blacked out in the redacted version of our proposal, and, as such, Milliman requests that you find such material to qualify as proprietary information under Nebraska Revised Statute 84-712.05(3), thus making such material exempt from disclosure under Nebraska's public records statute.

(2) Organizational structure and internal risk mitigation processes

Milliman's ability to distinguish itself from its competitors through its organizational structure and internal risk mitigation processes are also Proprietary Information. Milliman's internal processes are designed to provide the highest quality of service to its client, and its robust staffing of credentialed actuaries give Milliman a competitive advantage. The discussion in the proposal of the signature authority process is particularly sensitive as Milliman developed the process to attain signature authority to create best in class quality control standards, which is instrumental to Milliman's reputation of a premier global consulting and actuarial firm. It is this reputation that allows Milliman to attract and retain consultants with the highest credentials, allowing Milliman to provide the highest quality of services to its clients. If the foregoing Proprietary Information is known by Milliman's competitors, Milliman could sustain substantial harm to its business. For example, it is likely that competitors would use this information to enhance their internal quality control processes, and/or target Milliman's actuaries to add depth to their teams, which would negatively impact Milliman competitively. The references to and descriptions of Milliman's organizational structure and risk mitigation processes have been blacked out in this redacted copy of our proposal, and, as such, Milliman requests that you find such material to qualify as proprietary information under Nebraska Revised Statute 84-712.05(3), thus making such material exempt from disclosure under Nebraska's public records statute.

(3) Specific Process Roadmap

Another way in which Milliman is able to distinguish itself from its competitors is through the thorough processes and procedures which are essentially a roadmap of its delivery of services if it is awarded the work outlined in the RFP. While all proposers must include a service description in their proposals, Milliman's is unique in the level of detail and comprehensiveness in addressing client requirements. It is clear that competitors have identified the superior quality of Milliman's proposals as competitors have incorporated portions of Milliman's proposals into their own. Milliman suffers a severe competitive disadvantage when its competitors are able to leverage its work for their gain. Milliman's detailed roadmap on service delivery has been blacked out in this redacted version of our proposal, and, as such, Milliman requests that you find such material to qualify as proprietary information under Nebraska Revised Statute 84-712.05(3), thus making such material exempt from disclosure under Nebraska's public records statute.

To Milliman's knowledge, none of the Proprietary Information is customarily disclosed to the public. Milliman goes to great lengths to protect the secrecy of such information from public disclosure and generally restricts its clients from doing the same. The economic value arising from the secrecy of this information is paramount to Milliman's continued ability to financial stability.

Furthermore, the disclosure of the Proprietary Information serves no public purpose, and the public will not be disadvantaged by not have access to the Proprietary Information.

For the reasons set forth above, Milliman requests that the Proprietary Information not be released under Nebraska's public records statute.

—————◆◆◆—————

If you have any questions regarding the attached materials or need additional clarification, please contact me directly at (317) 524-3512.

Sincerely,



Robert M. Damler, FSA, MAAA
Principal and Consulting Actuary

RMD/sks

MILLIMAN TECHNICAL PROPOSAL

State of Nebraska State Purchasing Bureau

RFP#: 5868 Z1

Submitted by Milliman, Inc.
July 11, 2018

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TABLE OF CONTENTS

Cover Letter	2
Form A – Bidder Contact Sheet.....	4
Request for Proposal Form	5
Section II – Terms and Conditions	6
Section III – Contractor Duties	7
Section IV – Payment	8
Section V – Project Description and Scope of Work	9
Corporate Overview	11
Technical Approach	34
SOW 1 – Capitation Rate Setting.....	35
SOW 2 – Capitation Rate Rebasing.....	68
SOW 3 – 1915(b) Waiver	115
SOW 4 – Program of All-Inclusive Care of the Elderly (PACE) Rate Setting	124
SOW 5 – 1115 Waiver Development and Submission	133
SOW 6 – Dental Capitation Rate Setting	146
SOW 7 – Dental Capitation Rate Rebasing	166
SOW 8 – Special Projects.....	182

Appendix 1: Financial Statements

Appendix 2: Terms and Conditions

Appendix 3: Contractor Duties

Appendix 4: Payment

Appendix 5: Work Samples

Appendix 6: Resumes

Appendix 7: Research Papers

Cover Letter

July 11, 2018

Nancy Storant
Teresa Fleming
State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, NE 68508

RE: RFP# 5868 Z1 – COVER LETTER

Milliman, Inc. (Milliman) is pleased to present the enclosed technical proposal to the State of Nebraska State Purchasing Bureau.

Milliman has the expertise, skills, knowledge and national experience to provide the outlined services in a timely and efficient manner. The professionals from the Milliman Medicaid Consulting Group have exceptional depth of experience working with Medicaid managed care rate settings, having provided consulting services to more than 25 states on a regular basis during the past twenty years.

This proposal is submitted by Robert M. Damler, FSA, MAAA, a Principal and Consulting Actuary in the Indianapolis office of Milliman. Mr. Damler will be available to answer any questions regarding this proposal and may be contacted at the following address and phone numbers:

Mr. Robert M. Damler
Principal and Consulting Actuary
Milliman, Inc.
10 West Market Street, Suite 1600
Indianapolis, IN 46204
Phone: (317) 524-3512 (direct)
Phone: (317) 639-1000 (office)
Fax: (317) 639-1001
e-mail: Rob.Damler@milliman.com

Mr. Damler is an authorized representative of the organization who will interact with the State of Nebraska on any matters pertaining to this RFP and the resulting contract. Mr. Damler would serve as the engagement lead under the contract. Mr. Damler is a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries. Mr. Damler is also a Principal and Consulting Actuary in the Indianapolis office. As such, he is empowered to bind Milliman to all statements and services outlined in the proposal and any contract awarded pursuant to it. He would have ultimate responsibility and accountability for this contract.

MILLIMAN

We also acknowledge receipt and review of the following RFP documents and Addenda as posted on the DAS website at <http://das.nebraska.gov/materiel/purchasing/rfp5868/5868.html>:

Project Documents	Date Posted	Document Format(s)
Request for Proposal	06/12/18	PDF Word
Attachment A Cost Proposal	06/12/18	PDF Word
Attachment B Business Associate Agreement	06/12/18	PDF Word
Evaluation Criteria Released	06/12/18	PDF
Addendum 1 - Revised Schedule of Events	06/27/18	PDF
Addendum 2 - Questions and Answers	06/29/18	PDF
Addendum 3 - Revised Schedule of Events	07/2/18	PDF

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Again, we appreciate your acceptance of this proposal. Please contact me at 317-524-3512, if you have any questions or need any additional information.

Sincerely,



Robert M. Damler, FSA, MAAA
Principal and Consulting Actuary

RMD/sks

**Form A – Bidder Contact
Sheet**

Form A – Bidder Contact Sheet

Request for Proposal Number 5868 Z1

Form A should be completed and submitted with each response to this RFP. This is intended to provide the State with information on the bidder's name and address, and the specific person(s) who are responsible for preparation of the bidder's response.

Preparation of Response Contact Information	
Bidder Name:	Milliman, Inc
Bidder Address:	10 W. Market Street, Suite 1600 Indianapolis, IN 46204
Contact Person & Title:	Robert M. Damler, FSA, MAAA Principal & Consulting Actuary
E-mail Address:	Rob.Damler@milliman.com
Telephone Number (Office):	317-524-3512
Telephone Number (Cellular):	317-201-8300
Fax Number:	317-639-1001

Each bidder should also designate a specific contact person who will be responsible for responding to the State if any clarifications of the bidder's response should become necessary. This will also be the person who the State contacts to set up a presentation/demonstration, if required.

Communication with the State Contact Information	
Bidder Name:	Milliman, Inc
Bidder Address:	10 W. Market Street, Suite 1600 Indianapolis, IN 46204
Contact Person & Title:	Robert M. Damler, FSA, MAAA Principal & Consulting Actuary
E-mail Address:	Rob.Damler@milliman.com
Telephone Number (Office):	317-524-3512
Telephone Number (Cellular):	317-201-8300
Fax Number:	317-639-1001

**Request for Proposal
Form**

Request for Proposal Form

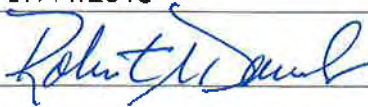
By signing this Request for Proposal for Contractual Services form, the bidder guarantees compliance with the procedures stated in this Request for Proposal, and agrees to the terms and conditions unless otherwise indicated in writing and certifies that bidder maintains a drug free work place.

Per Nebraska's Transparency in Government Procurement Act, Neb. Rev Stat § 73-603 DAS is required to collect statistical information regarding the number of contracts awarded to Nebraska Contractors. This information is for statistical purposes only and will not be considered for contract award purposes.

____ NEBRASKA CONTRACTOR AFFIDAVIT: Bidder hereby attests that bidder is a Nebraska Contractor. "Nebraska Contractor" shall mean any bidder who has maintained a bona fide place of business and at least one employee within this state for at least the six (6) months immediately preceding the posting date of this RFP.

____ I hereby certify that I am a Resident disabled veteran or business located in a designated enterprise zone in accordance with Neb. Rev. Stat. § 73-107 and wish to have preference, if applicable, considered in the award of this contract.

____ I hereby certify that I am a blind person licensed by the Commission for the Blind & Visually Impaired in accordance with Neb. Rev. Stat. §71-8611 and wish to have preference considered in the award of this contract.

FIRM:	Milliman, Inc
COMPLETE ADDRESS:	10 West Market Street, Suite 1600 Indianapolis, IN 46204-2966
TELEPHONE NUMBER:	317-639-1000
FAX NUMBER:	317-639-1001
DATE:	07/11/2018
SIGNATURE:	
TYPED NAME & TITLE OF SIGNER:	Robert M. Damler, FSA, MAAA Principal and Consulting Actuary

FORM MUST BE SIGNED USING AN INDELIBLE METHOD (NOT ELECTRONICALLY)

Section II – Terms and Conditions

Please see Appendix 2

**Section III – Contractor
Duties**

Section III – Contractor Duties

Please see Appendix 3

Section IV – Payment

Section IV – Payment

Please see Appendix 4

**Section V – Project
Description and SOW**

Section V – Project Description and Scope of Work

Our responses to the requested information for the individual scopes of work can be found in the “Technical Approach” section.

A. **PROJECT OVERVIEW**

This is a Request for Proposal (RFP) to engage the services of an Actuarial and Consulting Services firm to provide methods for and calculation of capitation rates for Medicaid Managed Care initiatives and other services that may be necessary to be provided by an actuary. These methods must be actuarially sound, acceptable to the Centers for Medicare and Medicaid Services (CMS) and readily replicated.

B. **PROJECT ENVIRONMENT**

The State of Nebraska, Department of Health and Human Services (“Department”) by virtue of Nebraska Title 42 of the Code of Federal Regulation (CFR), Part 438 Managed Care; Title 471, Nebraska Administrative Code (NAC) “Nebraska Medical Assistance Program Services”; and Title 482, Nebraska Administrative Code “Nebraska Medicaid Managed Care”, is authorized to provide Medicaid Managed Care Services.

Nebraska is currently using, or may use, the following systems to deliver managed care services:

1. **MANAGED CARE ORGANIZATION (MCO)**

Risk-comprehensive contracts are fully-capitated and require that the contractor be an MCO or Health Insuring Organization (HIO). Comprehensive means that the contractor is at risk for services in the Basics Benefits package in compliance as set forth in the contract terms.

2. **PREPAID INPATIENT HEALTH PLAN (PIHP)**

Provides services to enrollees on the basis of capitation payments and is responsible to provide, arrange for or otherwise provide inpatient hospital services to its enrollees

3. **PROGRAM FOR ALL-INCLUSIVE CARE FOR THE ELDERLY**

Provides comprehensive coordinated long term services and supports specifically to Medicaid and Medicare enrollees.

4. **LONG-TERM CARE MANAGED CARE (Optional)**

The Department is developing the Long-Term Care Managed Care program that will provide long term services and supports in the home/community setting or nursing facility to Nebraska Medicaid enrollees. The Long-Term Care managed care initiative is expected to manage physical and Behavioral health services, as well as long-term care services, required by the client. Dental services may be excluded from the Managed Long-Term Care capitated rate.

Managed populations will include persons who receive nursing facility services, Aged & Disabled Medicaid waiver services under 1915 (c) of the Social Security Act, Traumatic Brain Injury Medicaid waiver services under 1915 (c) of the Social Security Act, and home and community-based services under the Nebraska Medicaid State Plan. Populations served under this program will not include persons who receive intermediate care facility for developmental disabilities (ICF/DD) services and developmental disability services related to the 1915 (c) Medicaid waiver services.

Current 1915 (c) waivers expected to be included in Managed Long-Term Care (identified as # 0187 and # 40199) may be found at:

<http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/Waivers.html?filterBy=nebraska>

The Nebraska Medicaid State Plan may be found at:
http://dhhs.ne.gov/medicaid/Pages/med_xixstateplan.aspx

Nebraska Medicaid regulations may be found at:
http://dhhs.ne.gov/medicaid/Pages/med_regs.aspx

It is expected that some long-term care managed care recipients will be dually eligible for Medicare and Medicaid. However, Nebraska is not proposing to CMS a state demonstration to integrate care for dual eligible individuals at this time. It is expected that some long-term care managed care recipients will be covered by a third party health insurance plan in addition to Medicaid. It is expected that long-term care managed care recipients will represent all age categories.

The above expectations and populations for long-term care management are subject to change prior to implementation. It is possible that other additional populations or programs may be added before the end of the contract term.

Nebraska Medicaid currently provides health care coverage for approximately 239,087 individuals each month. Approximately 226,835 of these individuals are enrolled in physical managed care.

C. SCOPE OF WORK (SOW)

Each SOW Project itemized in this Section is presented with the minimum requirements to be performed. The bidder is to provide enough detail in narrative form in its response to allow the Evaluation Committee to score the bidder's approach to each requirement.

*Bidders are to provide the following information on **each** service proposed if it applies:*

- a. *Process, staffing, and timeframe*
- b. *Methodology for performing the service;*
- c. *Prior experience performing this service for other states or companies of similar size and Medicaid Managed Care enrollment numbers to the State of Nebraska. This includes:*
- d. *Successes achieved, in regards to prior experiences listed above;*
- e. *Description of challenges present with rate-setting and how bidder addresses each challenge;*
- f. *Number of years performing the service;*
- g. *Any requirements to be provided by the Department;*
- h. *An estimated timeline for completion of services;*
- i. *All costs proposed must be inclusive of all out-of-pocket and any miscellaneous expenses; and*
- j. *All analysis, findings and/or recommendations are to be in line with current statutory/actuary as it applies to each SOW defined below.*

Corporate Overview

A. BIDDER IDENTIFICATION AND INFORMATION

Milliman, Inc.
1301 Fifth Avenue, Suite 3800
Seattle, WA 98101

Type of Organization: Corporation

Year of Incorporation: 1947

Length of Time in Business: 70 Years

State of Incorporation: Washington

Previous Organization Names: Milliman & Robertson, Inc.; Milliman USA, Inc.

Federal Employer Identification Number: 91-0675641

B. FINANCIAL STATEMENTS

Milliman is an independent firm owned and managed by its principals, who are all active in the operation of the business. Milliman is financially strong, producing consistent revenue growth for the past 70 years, including growth of nearly 7% in 2017. Milliman produces strong cash flows and has borrowing capacity of approximately \$100 million, with little or no outstanding debt at any given point in time. Milliman is diversified across the services and products it provides, across a global geography, and across its client base, with no one client representing more than 2% of revenue.



Milliman is a cash basis taxpayer and distributes substantially all of its cash basis earnings or profits to its employees, including principals, each year. Due to year-to-year differences in accrual-based financial statements and cash-based distributions to employees, Milliman shows a small profit or loss each year.

Audited financial statements for fiscal years 2016 and 2017 are provided in Appendix 1.

The following bank reference is in response to the request from the RFP for non-publicly held companies:

Greg Milner
Wells Fargo
Acct# 4159648724
205 108th Avenue NE, Suite 600
Bellevue, WA 98004
milnerg@wellsfargo.com
(425) 450-8055

Milliman does not have any judgements, pending or expected litigation, or other real or potential financial reversals that will materially affect the viability or stability of the organization.

C. CHANGE OF OWNERSHIP

There is no change in ownership or control of the company anticipated during the twelve (12) months following the proposal due date of July 13, 2018. We understand that if any change of ownership occurs, we are required to notify the State of Nebraska.

D. OFFICE LOCATION

This proposal is being presented by the Indianapolis office of Milliman where the majority of the services will be completed. To the extent that the project requires the expertise or assistance of other offices, Milliman will utilize consultants in one of our offices. The address for the Indianapolis office is as follows:

Milliman, Inc.
Market Tower
10 W. Market Street
Suite 1600
Indianapolis, IN 46204

E. RELATIONSHIP WITH THE STATE

The following identifies the contractual relationships between Milliman and the State of Nebraska during the past ten (10) years.

1. *Affordable Care Act Financial Reviews*

Milliman was retained by the Nebraska Department of Health and Human Services, Division of Medicaid and Long-Term Care to provide consulting services related to the financial review of the Patient Protection and Affordable Care Act and amended by the Health Care and Education Reconciliation Act (Affordable Care Act) as they relate to the provisions impacting the State of Nebraska's Medicaid program and budget. Milliman also provided consulting service assistance to the Nebraska Department of Health and Human Services to determine appropriate Modified Adjusted Gross Income (MAGI) levels of income for the new eligibility criteria required under the Affordable Care Act.

Contracts:

- Effective 1/1/2015 through 12/31/2015 (Contract #59436(04));
- Effective 1/24/2014 through 12/31/2014 (Contract #59436(04));
- Effective 12/1/2012 through 12/31/2013 (Contract #54750(04));
- Effective 5/1/2012 through 7/1/2012 (Contract #54750(04)); and
- Effective 7/1/2010 through 9/30/2010 (Contract #44730(04)).

2. *Property & Casualty Consulting Services*

Milliman provided the University of Nebraska's Finance Department with actuarial services regarding their Property, General Liability, and Auto exposures.

Contracts:

- Effective 1/1/2007 through 12/31/2018 (contract # not specified).

3. *Mental Health and Substance Abuse Healthcare Services*

Milliman was retained by the Nebraska Department of Health and Human Services, Division of Medicaid and Long-Term Care to develop state-wide full risk capitation rates for managed mental health and substance abuse healthcare services, including actuarial certification, data book development and assistance with bidder questions and answers.

MILLIMAN

Contracts:

- Effective 12/1/2011 through 4/30/2013 (contract # not specified).

4. *Programs of All-Inclusive Care for the Elderly (PACE) Capitation Rates*

Milliman was retained by the Nebraska Department of Health and Human Services, Division of Medicaid and Long-Term Care to develop capitation rates for its PACE program.

Contracts:

- Effective 9/1/2012 through 12/31/2012 (contract # not specified); and
- Effective 7/1/2010 through 12/31/2010 (contract # not specified).

5. *Durable Medical Equipment (DME) Fee Schedule Analysis*

Milliman was retained by the Nebraska Department of Health and Human Services, Division of Medicaid and Long-Term Care to perform a fee schedule analysis of its program's DME services.

Contracts:

- Effective 7/14/2011 through 9/30/2011 (contract # not specified).

F. BIDDER'S EMPLOYEE RELATIONS TO STATE

None of the parties named in Milliman's proposal have been employed by the State of Nebraska within the past twelve (12) months.

As of the date of this proposal submission, Milliman does not employ any employee of any agency of the State of Nebraska.

G. CONTRACT PERFORMANCE

The Indianapolis Milliman Medicaid Consulting Group has not had any contract terminated for default, convenience, non-performance, non-allocation of funds or any other reason within the past ten (10) years.

H. SUMMARY OF BIDDER'S CORPORATE EXPERIENCE

Milliman has been a national leader in consulting to state Medicaid agencies for over 20 years, with current **contracts with 20 state and territorial Medicaid agencies** to sign and actuarially certify state Medicaid managed care capitation rates.

We are a **full-service firm** with a deeply qualified, highly credentialed staff. We have more actuaries that specialize in Medicaid consulting than any other actuarial firm or health insurance company.

We have more actuaries that specialize in Medicaid consulting than any other actuarial firm or health insurance company.

We recognize that capitation rates are not created in a vacuum and are part of a dynamic and complex environment with managed care plans. We also realize that actuarial consulting services are not a commodity, both from the state choosing a vendor and the services a vendor provides to a state.

Our deliverables, including managed care capitation rates, consider the specific nuances that exist in every state. Other externalities include hospital rates and how they are constructed along with other fee schedules. For example, many states use APR-DRGs for hospital rate setting. In the State of Ohio, we thoroughly analyzed the changes to these rates and discovered that while the changes were budget neutral in total, the outcomes were very different at a rate cell level. We helped the State avoid a problem by working collaboratively with the vendor in developing the hospital rates to understand their impact on specific populations.

We understand, appreciate, and incorporate unique externalities into our rate setting process and other deliverables.

Ongoing data surveillance after the development of capitation rates is important. We routinely monitor enrollment levels and acuity at a rate cell level to ensure we are tracking with rating assumptions. Our data surveillance programs frequently catch enrollment issues that can have material impacts to states.

We are committed to fully understanding the State of Nebraska and the service delivery system that supports the 245,000 Medicaid members in the State of Nebraska. This level of service does not end with a deliverable. It is crucial that once deliverables such as capitation rates are provided that we then track the assumptions to ensure the accuracy of the rates as well as surveil the data for unanticipated changes.

The actuarial team that we have proposed for the State of Nebraska has a significant level of experience in working with state Medicaid agencies, often from building the managed care program from implementation to full maturity. Further, we bring information to further the knowledge of Nebraska's leadership to allow the Medicaid managed care program to evolve to provide the highest quality of services for the Medicaid beneficiaries at an actuarially sound capitation rate that is fiscally responsible.

Milliman recognizes the importance of being conflict-free and separating policy making from the financial evaluation of that policy in a collaborative manner.

As with all our state Medicaid clients, we will provide unbiased and conflict-free financial advice to our State clients in a constructive and collaborative manner with independence and integrity.

The following table summarizes the projects that have been completed for Milliman's state Medicaid contracts, including the tenure of the contract, size of the managed care program, and the types of services provided for the state Medicaid agency, including capitation rate setting for medical and dental services, 1915(b) and 1115 waiver services, and PACE rate setting. The projects range in size those that are smaller than Nebraska (e.g., New Hampshire) to significantly larger than Nebraska (e.g., Florida and Ohio). We have provided the consulting services requested by this RFP in various forms to each of these state Medicaid agencies. For example, we have provided actuarial consulting services for the State of Michigan since 1997, where our work has evolved from a voluntary managed care program to a mandatory managed care program for medical services. Initially, in the State of Michigan, we have provided capitation rate setting with full rate rebasing on a bi-annual basis along with interim rate updates in the interim years. Given our involvement in creating a robust encounter data system, we provide a full capitation rate rebasing on an annual basis. The Michigan program, similar to other state programs, involves a wide range of enrolled populations, including Low-income family, Blind and Disabled, Title V/XIX dual eligible children, ACA Medicaid expansion, and Medicare/Medicaid dual integration program. Michigan's program is also unique in that it involves a full-risk managed care program for behavioral health services. The program contracts with 10 individual Pre-paid Inpatient Health Plans (PIHPs) for all behavioral health and substance abuse services.

The PIHPs have full financial risk for providing these services throughout their specific catchment area. We have designed the program to have capitation rates that vary by PIHP, reflecting the underlying morbidity of the populations related to the behavioral health needs of the population in the geographic region. The morbidity adjustments are based on diagnosis codes submitted on the behavioral health encounter data. We developed the risk adjustment process. The State of Michigan operates the two managed care programs under a 1915(b) waiver.

The Michigan Medicaid managed care program is similar in size and scope to many of our state Medicaid clients, including Illinois, Indiana, Ohio and South Carolina. The State of Illinois recently underwent a statewide expansion of their Medicaid managed care program. Unlike Michigan, however, Illinois has expanded their program to include the individuals that are on 1915(c) home and community-based waivers and LTSS services. Further, Illinois has carved-in the behavioral health services into their managed care program to have the contracted medical services health plans to provide both behavioral health and medical services. Illinois recently received approval for an 1115 waiver that includes pilot programs related to behavioral health and other key health care initiatives that will be integrated with the managed care program.

Table 1. Summary of Milliman's Experience with Similar Projects

State	Contract Duration	Managed Care Program Size	Medical Capitation Rate Setting and Rebasings	1915(b) Waiver	PACE Rate Settings	1115 Waiver Development and Submission	Dental Capitation Rate Setting and Rebasings
Alaska	2016 to present	\$0.5 billion (est)		✓		✓	
Arkansas	2018 to present	\$1.0 billion	✓				
Florida	1993 to present	\$12.0 billion	✓				✓
Hawaii	2005 to present	\$2.0 billion	✓				
Idaho	2012 to present	<\$0.1 billion	✓			✓	✓
Illinois	1998 to present	\$12.0 billion	✓	✓		✓	✓
Indiana	2000 to present	\$6.0 billion	✓	✓	✓	✓	✓
Michigan	1997 to present	\$8.0 billion medical and \$2+ billion BH/SA	✓	✓	✓	✓	✓
Minnesota	1992 to present	\$6.0 billion	✓			✓	
Mississippi	2008 to present	\$3.0 billion	✓				
Nevada	2002 to present	\$1.5 billion	✓				✓
New Hampshire	2001 to present	\$0.7 billion	✓			✓	

Ohio	2015 to present	\$15.0 billion	✓	✓	✓	✓	✓
Puerto Rico	2003 to present	\$2.5 billion	✓				
South Carolina	2008 to present	\$3.0 billion	✓		✓	✓	✓
Utah	2010 to present	\$1.0 billion	✓				✓
Vermont	2012 to present	\$1.5 billion	✓				
Washington	1996 to present	\$6.0 billion	✓				✓
Wisconsin	2015 to present	\$3.8 billion	✓				

Furthermore, Milliman performs a significant amount of research for state Medicaid agencies in the form of publicly available white papers, research reports and issue briefs, web-based seminars, and on-site conference training. Our research is often the impetus for state Medicaid agencies to take action specific to their own managed care programs. To our knowledge, no other actuarial consulting firm provides this level of research and Internet-based conferences to their clients. The following examples were prepared for Milliman's state Medicaid agency clients:

- *Medicaid Managed Care – Summary of Financial Results and Administrative Expenditures:* This report, which Milliman has published annually for the past 10 years, summarizes financial and administrative expenditures on a state-by-state basis, regionally, and nationally and is quoted regularly in national publications, and most recently in the Medicaid managed care federal regulations as it relates to the medical loss ratio requirements.
- *How Changing Opioid Prescribing Patterns Can Impact Risk Scores:* This research paper focuses on how physician prescribing patterns can impact risk scores due to the opioid crisis, using risk adjustment tools, such as the Chronic Illness and Disability Payment System and Medicaid Rx (CDPS+Rx).
- *Medicaid Managed Care Regulation Web-Based Conference Series:* During the several months following the release of the Medicaid managed care regulations in 2016, Milliman actuarial consultants held a series of conferences via the internet. The conference series coincided with a series of research papers focusing on various aspects of the managed care regulation, including medical loss ratio, pass-through or supplemental payments, capitation rate setting, and encounter data requirements.
- *Medicaid 101 Actuarial Rate Setting:* At the request of one of our state clients, we prepared an afternoon session discussing actuarial capitation rate setting. The session was presented to more than 30 individuals within the state Medicaid agency that have contact to the Medicaid managed care program.

In summary, Milliman's actuarial expertise, data and information, research, IT solutions, and consulting services will provide the State of Nebraska with the right solution required for the services outlined in this RFP. The following provides information regarding three specific projects that are similar to projects anticipated for the State of Nebraska.

Narrative Project 1: State of Illinois, Department of Healthcare and Family Services

- Project Description:** Calendar Year 2018 Managed Care Request for Proposal and Capitation Rate Setting.
- Contractual Relationship:** Milliman was the direct or primary contractor to the State of Illinois.

- c) **Project Time Period:** February 2017 through December 2017
- d) **Scheduled Completion Date and Budget:** There were two scheduled completion dates with the RFP project. The first completion date was March 30, 2017 to have a published data book for capitation rate bidding by the health plans. The second completion date was November 1, 2017 (extended to November 15, 2017). For the State of Illinois, we did not establish budgets by project. We billed on an hourly basis for all work.
- e) **Actual Completion Date and Budget:** The first actual completion date was March 29, 2017. The second actual completion date was November 15, 2017. The second completion date was extended by the State of Illinois due to additional data being submitted by the health plans. The overall billed charges for both projects was \$1,474,000.
- f) **Milliman's Responsibilities:** We have been working with the State of Illinois to establish actuarially sound capitation rates and waiver support since 1998. In calendar year 2017, the State of Illinois issued an RFP for Medicaid managed care health plans. The State of Illinois moved from limited geographic regions to state-wide Medicaid managed care. The RFP required that the health plans provide a state-wide bid with some limited exceptions for health plans to bid in the Chicago region only. The result of the competitive procurement was contracting with seven health plans, which would provide managed care coverage for nearly 3 million Medicaid beneficiaries. Milliman was responsible for the development of the initial data book, which provided capitation rate ranges for the health plans to submit a competitive financial bid. The initial data book was published in early calendar year 2017 to facilitate the competitive bidding and selection of awarded health plans. The initial data book relied upon data from calendar year 2015 with limited emerging data into 2016.

Following the award of the contract to the selected health plans, Milliman was responsible for updating the capitation rate ranges using the most current calendar year 2016 and emerging 2017 health plan experience. Milliman developed the capitation rate certifications which were submitted to CMS for review and approval. We also presented the updated capitation rate ranges to the health plans. We participated in one-on-one meetings with each individual health plan to understand their emerging experience, which was utilized in the final capitation rates.

In addition to working with the State of Illinois, we provided subject matter expertise to a third party contractor that was responsible for overseeing the managed care health plan RFP for the state.

The Medicaid managed care RFP included all Medicaid eligible populations including:

- Low Income Family or Non-disabled Children and Adults;
- ACA Expansion Population;
- Non-dual Disabled Adults, including those institutionalized or on HCBS waiver;
- Managed Long-term Services and Supports; and
- Medicaid and Medicare Alignment Initiative.

- g) **Risk Adjusted Rate Setting Techniques:** Risk adjustment was required in the capitation rate setting process due to the following factors:

- Enrollment System Changes: In calendar year 2017, immediately following completion of the RFP process, the State of Illinois implemented a new enrollment system. The enrollment system distributed members from certain eligibility categories (e.g., low-income family) to other eligibility categories (e.g., disabled) that were not consistent

with the historical data used to establish the capitation rates. We are using risk adjustment to study the changes in the underlying morbidity of the populations pre- and post-shift due to the enrollment implementation.

- **Enrollment Backlog:** The State of Illinois identified a backlog for new enrollment applications. We used risk adjustment techniques to understand how the backlog may have impacted the underlying morbidity of the residually enrolled population.
- **New Health Plans:** Beginning with January 1, 2018, all Medicaid beneficiaries that were eligible for the managed care program began an open enrollment process. Several health plans were not awarded a contract that were previously provided managed care services in the State of Illinois. Risk adjustment was historically a standard part of the capitation rate process by population. With the open enrollment, auto-assignments, and member choice within 90 days, we used risk adjustment to modify the capitation rates to reflect the transition of members into and among the health plans.
- **Overall Risk Adjustment:** We used risk adjustment to reflect the morbidity variances among the individual health plans since the implementation of mandatory managed care began in 2012 in various parts of the state. We relied upon either CDPS, Medicaid Rx or the combination of CDPS + Medicaid Rx depending on the quality of the baseline medical claims data. As part of the Risk Adjustment Module, we developed techniques that study encounter data submissions by the health plans for the completeness of the data. Further, we also studied the data for health plans that may be gaming the data submission and verified that all of the health plans are submitting data with the same quality.

Risk adjustment is an important part of the Medicaid managed care capitation rate process for the State of Illinois. As such, we utilized the CDPS+Medicaid Rx risk adjustment tool. We have utilized the CDPS+Medicaid Rx risk adjustment tool in many of our projects, and we have historically chosen CDPS+Medicaid Rx model due to the following reasons:

- **Open source:** The CDPS+Medicaid Rx risk adjustment model was developed by the University of California at San Diego. The source code for the risk adjustment tool is an open source SAS program. This allows the users to develop modifications to meet the needs of the individual situation. Other risk adjustment tools, e.g., CRG and HCC models have not met the same level of transparency.
- **Predictability:** Independent research performed by the Society of Actuaries¹ indicates the predictability of the various risk adjustment models. Each of the models performed at relatively consistent levels based on various measures. However, the application and use of the risk adjustment technique is the key to choosing various risk adjustment tools. We have historically utilized a risk adjustment tool to compare the relative risk scores among each individual health plan in relation to the overall composite to reflect a budget neutral adjustment. The application of the tool by the contracting actuary and the quality and validation of the underlying data from each individual health plan plays a more important role in appropriate integration of a risk adjustment tool.
- **Cost:** The CDPS+Medicaid Rx tool is a very cost-effective solution for the use by the state Medicaid agency, the contracted actuarial firm, and the health plans. Acquiring the software license from UCSD for CDPS+Medicaid Rx involves little to no cost.

¹ <https://www.soa.org/research-reports/2016/2016-accuracy-claims-based-risk-scoring-models/>

Further, as CDPS+Medicaid Rx is the most widely used risk adjustment tool in state Medicaid managed care programs, consultants or health plans have significant experience in using the tool. This allows the tool to be utilized and understood at a lower cost than other commercially available tools.²

- **Replicability:** In using the CDPS+Medicaid Rx tool in state Medicaid programs, we have shared underlying member level results using the risk adjustment tool with the contracted Medicaid health plans. The contracted health plans and their consultants are able to use the member level detail to replicate the risk score results, which provides significant confidence from the health plans in accuracy of the information.

While CDPS+Medicaid Rx has been utilized by the majority of state Medicaid agencies, the CRG and HCC risk adjustment tools have been utilized in some state programs. Specifically, the CRG tool is currently used in the State of New York. We provide consulting services to two of the health plan associations in New York and are familiar with the use of the CRG tool. The HCC tool is used in the Medicare Advantage program and not widely used in the state Medicaid managed care program. The use of risk adjustment to reflect the morbidity variances among health plans is an important part of the capitation rate setting process and establishing actuarially sound capitation rates. The frequency of adjusting the rates, integration of the risk scores at a health plan or member level, the use of diagnosis and/or pharmacy data, and other considerations need to be discussed with the State of Nebraska and will influence the final risk scoring tool and method. This is one of many best practices and resources we have developed to meet the unique needs of each project. Our best practices and resources are outlined further below in our discussion about our corporate experience.

However, we recognize that the modules of our best practices do not focus on all of the items in the State of Nebraska's RFP. For example, the State of Nebraska has requested assistance with 1915(b) waivers and 1115 waivers. As waiver development is a unique process, we have not currently developed a best practice module to focus in this area. However, we have performed waiver development in many states, including the following in calendar year 2017:

- State of Indiana 1115 waiver for Healthy Indiana Plan, which includes community participation or work requirements and IMD substance abuse services in 2017;
- State of Kentucky 1115 waiver, which included community participation or work requirements and IMD substance abuse services;
- State of Michigan 1915(b) waiver for behavioral health services; and,
- State of Alaska 1115 waiver for behavioral health transformation.

- h) **Experience with Prepaid Inpatient Health Plan (PIHP):** Illinois does not have PIHPs as part of their service delivery system. Please see the Michigan example, below, for experience related to PIHP.
- i) **Experience with All-Inclusive Care for the Elderly Program (PACE):** Illinois does not support the PACE program. Please see Table 1, above, for a list of the states where we support rate development, financial reporting, and analytical support for PACE programs across the country.
- j) **Experience with Long-Term Care Managed Care Program (LTMC):** The State of Illinois has operated a Managed Long Term Service and Supports (MLTSS) program since 2016. The rate cell structure of the MLTSS program is based upon a blended rate structure (Nursing Facility, Other Waiver rate cells) that incentivizes health plans to move Medicaid beneficiaries from an institutional to community setting. Services covered under this program include nursing home

² 2015 SoA Annual Meeting & Exhibit Oct 11-14, 2015, Session 38 PD, Risk Adjusters in Medicaid

care, mental health and substance abuse services, supportive living, personal assistant services, and home health care, among other items.

We have worked extensively with expanding the presence of Medicaid managed care within the state through transition of previously fee-for-service populations and Medicaid expansion. Milliman has been involved in all aspects of the capitation rate-setting process, including development and actuarial certification of the capitation rates, and reviewing methodologies with CMS.

The State of Illinois has also operated an Integrated Care Program (ICP) – Service Package II since 2013. This package includes Nursing Facility services and the care provided through some of the Home and Community-Based Service waivers operating in Illinois (excluding Developmentally Disabled/DD waiver services). Milliman has been involved in all aspects of the capitation rate-setting process for the ICP Service Package II population, including actuarial certification of the capitation rates, and reviewing methodologies with CMS.

Milliman has assisted in integrating assessment data in both provider reimbursement and LTSS capitation rate risk adjustment, impacting health plan reimbursement. These LTSS reforms have aligned Medicaid funding with cost efficient use of LTSS services and incentivized the appropriate use of home and community-based services over institutional facilities.

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- l) Staff Experience:** Robert M. Damler, FSA, MAAA, a principal and consulting actuary, has been proposed for the State of Nebraska contract. Mr. Damler has been the primary consulting actuary for the State of Illinois since 1998. Mr. Damler was one of the lead consultants providing subject matter expertise, peer review of the documents, presentation and discussion with the contracting health plans, and presentation and discussion to the state's executive leadership team, including Medicaid Director and Director of the State of Illinois Healthcare and Family Services (Medicaid Agency). Many of the other individuals involved in the State of Illinois projects will provide additional support and review of the State of Nebraska projects. A copy of Mr. Damler's resume has been provided in Appendix 6.

Mr. Damler has more than 20 years of experience with risk-based capitation rate development. He is recognized within the industry as a leader in actuarial, financial and policy issues associated with Medicaid programs. Mr. Damler provided leadership by serving as the chairman for the drafting task force of the Actuarial Standard of Practice #49, Capitation Rate Setting for Medicaid Managed Care Programs for the American Academy of Actuaries.

m) References:

State of Illinois Healthcare and Family Services
 Dan Jenkins, Bureau Chief of Rate Development and Analysis
 201 South Grand Avenue East
 Springfield, Illinois 62704
dan.jenkins@illinois.gov
 (217) 524-7400

Narrative Project 2: State of South Carolina, Department of Health and Human Services (SCDHHS)

- a) Project Description:** State Fiscal Year 2019 Medicaid Managed Care Capitation Rates and Calendar Year 2018 PRIME Capitation Rates
- b) Contractual Relationship:** Milliman was a direct/primary contractor to the State of South Carolina.
- c) Project Time Period:** July 2017 through June 2018.
- d) Scheduled Completion Date and Budget:** This project was split into two different components with different completion dates. The scheduled completion date for the calendar year 2018 PRIME capitation rates was December 31, 2017 with the effective date of the rates as January 1, 2018. The scheduled completion date for the state fiscal year 2019 Medicaid managed care capitation rates was June 22, 2018 with the effective date of the rates and applicable risk adjustment factors as July 1, 2018. There was no specific budget since we bill on an hourly basis for the State of South Carolina.
- e) Actual Completion Date and Budget:** The actual completion date was December 22, 2017 for the PRIME capitation rates and June 21, 2018 for the Medicaid managed care capitation rates. The overall billed charges for both projects was \$1,000,000.

- f) **Milliman's Responsibilities:** We have been working with the State of South Carolina since 2008 to develop actuarially sound capitation rates for the Medicaid and Dual eligible programs. The responsibilities and work detailed below is specific to the projects completed for South Carolina during state fiscal year 2018 (July 2017 through June 2018).

Milliman was responsible for developing the capitation rates and accompanying rate certification reports, which were submitted to CMS for their review and approval. Milliman worked with the SCDHHS to present the methodology, program adjustments, and capitations rates through a series of meeting with the managed care organizations. We used MCO data and survey results as well as data provided by SCDHHS to support the development of the capitation rates for each individual health plan. As a final step in the Medicaid managed care rate development process, Milliman was responsible for calculating risk adjustment factors for the non-infant managed care populations through various mechanisms.

The Medicaid managed care programs included in this rate development work was for numerous Medicaid eligible populations such as:

- Low-income Family or Non-Disabled Children and Adults;
- Blind, Aged, and Disabled Children and Adults;
- Pregnant Women; and
- Foster Children.

The PRIME program covers the Medicare and Medicaid eligible individuals in South Carolina.

Rate development was completed for the following populations in the PRIME program:

- Community;
- Nursing home; and
- Waiver.

- g) **Risk Adjusted Rate Setting Techniques:** Risk adjustment is an important part of the Medicaid managed care capitation rate process for the State of South Carolina. For the medical services contract, we used a diagnosis and pharmacy-based risk adjustment model, CDPS+Rx, to evaluate the morbidity differences between the TANF Adult, TANF Children, SSI Adult, and SSI Children beneficiaries covered by each managed care organization.

To avoid double counting the effect of age and gender on the risk adjustment results, we estimated the age/gender mix differences on the TANF Adult and Children populations between plans based on the distribution of covered beneficiaries by rate cell. The age/gender normalization adjustment removes the impact of the age/gender curve already included in the capitation rate cells from the risk adjustment factors, resulting in adjusted risk scores that are not influenced by differences in the distribution of rate cell enrollment between MCOs.

No specific risk adjustment was applied to the PRIME program capitation rates. However the PRIME program base expenditure information was adjusted to reflect the morbidity due to anticipated selection of the PRIME program. It was determined that individuals with high needs for behavioral health services did not enroll at the same rate as individuals with more limited needs for behavioral health services.

- h) **Experience with Prepaid Inpatient Health Plan (PIHP):** South Carolina does not include PIHPs as part of their service delivery system. Their risk-based managed care delivery system consists of managed care organizations operating under comprehensive risk contracts. Please see our Michigan narrative for discussion of experience related to PIHPs.

- i) **Experience with All-Inclusive Care for the Elderly Program (PACE):** We provide a full suite of services for South Carolina with respect to their PACE program, which includes calculating the amount that would otherwise have been paid (AWOP or Upper Payment Limit / UPL) on an annual basis and the capitation rates as needed to comply with CMS guidance issued in 2015 related to PACE capitation rate setting. We work with the State to identify the appropriate proxy population for the AWOP calculation, and also survey the PACE providers to ensure that the calculated capitation rate reflects the expected mix of institutional and non-institutional members.

In addition to the PACE calculations, we project PACE enrollment and expenditures on a quarterly basis as part of the comprehensive Medicaid Assistance budget forecasting analyses we provide to the state. We also gain efficiency in the PACE project by relying on relevant assumptions from our comprehensive managed care and dual demonstration capitation rate setting analyses.

- j) **Experience with Long-Term Care Managed Care Program (LTMC):** Effective February 2015, South Carolina entered a three-way contract with CMS and Medicare-Medicaid plans (MMPs) to operate a dual demonstration program under the Financial Alignment Initiative (the Prime program). A subset of the dual-eligible population enrolled in Prime includes individuals receiving long-term care services in either an institution or through one of three home and community-based 1915(c) waivers included in the demonstration. The key concepts underlying the capitation rate development for the long-term care population in Prime are very similar to an LTMC program, and also contain some characteristics similar to PACE capitation rate setting. We worked with the State and CMS from the very beginning of the Prime program – from the pre-implementation design phase to the current third year of the demonstration. We have successfully developed the rates, presented them to the MMPs, and responded to questions from the actuaries reviewing the rates for CMS. Therefore, we are well-positioned to assist Nebraska DHHS with a full scope of services such as program design, capitation rate structure, and capitation rate development as the Department looks to implement an LTMC program in the near future.

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[REDACTED]

- l) **Staff experience:** The principal and consulting actuary for this project was Jeremy D. Palmer, FSA, MAAA. Mr. Palmer was one of the lead consultants providing subject matter expertise, peer review of the documents, presentation and discussion with the contracting managed care organizations, and presentation and discussion to the state's executive leadership team, including the Medicaid Director. A copy of Mr. Palmer's resume has been provided in Appendix 6. Mr. Palmer has more than 12 years of risk-based capitation rate development.

Mr. Palmer is recognized within the industry as a leader in actuarial, financial and policy issues associated with Medicaid programs.

Marlene T. Howard, FSA, MAAA, principal and consulting actuary, was one of the lead consultants providing day-to-day support for the project, including delivering presentations and leading discussion with key stakeholders. A copy of Ms. Howard's resume has been provided in Appendix 6. Ms. Howard has nearly 10 years of risk-based capitation rate development experience. She is a key contributor to many aspects of actuarial consulting services that are provided to state Medicaid agencies. She has extensive experience with budget forecasting and associated fiscal impact analyses, risk scoring for managed care capitation rate-setting projects, capitation rate development for the dual demonstration, and review of capitation rate methodologies for various Medicaid populations. Her interaction with the different components of state Medicaid programs provides key insight and ensures consistency of program policy across various budget lines, particularly because many policy decisions impact the allocation of eligibility and expenditures throughout the various Medicaid delivery systems.

m) References:

State of South Carolina, Department of Health and Human Services
 Bryan Amick, Deputy Director for Health Programs
 1801 Main Street
 Columbia, SC - 29201
bryan.amick@scdhhs.gov
 (803) 898-0212

Narrative Project 3: State of Michigan, Department of Health and Human Services (MDHHS)

- a) Project Description:** State Fiscal Year 2018 Capitation Rate Development and Risk Adjustment
- b) Contractual Relationship:** Milliman was a direct or primary contractor to the State of Michigan.
- c) Project Time Period:** February 2017 through October 2017
- d) Scheduled Completion Date and Budget:** The scheduled completion date for this project was September 30, 2017 with the effective date of the rates and applicable risk adjustment factors October 1, 2017. For the State of Michigan, we do not establish budgets by project. We bill on an hourly basis for all work.
- e) Actual Completion Date and Budget:** The completion date of the rate certification reports was August 25, 2017 and September 11, 2017. Applicable risk adjustment factors were shared in a report dated September 9, 2017. The overall billed charges for both projects were \$227,000.
- f) Milliman's Responsibilities:** We have been working with the State of Michigan since 1997 to develop and certify to actuarially sound capitation rates for both the medical services and behavioral health managed care programs. In calendar year 2015, the State of Michigan issued a request for proposal for Medicaid managed care health plans for which we established an actuarially sound rate range for use in the procurement process. The responsibilities and work detailed below is specific to the state fiscal year 2018 (October 1, 2017 to September 30, 2018) time period which served as a re-basing year utilizing recently available data.

Milliman was responsible for developing the capitation rates and accompanying rate certification reports, which were submitted to CMS for their review and approval. Milliman worked with MDHHS to present the methodology and calculated capitation rates through a series of meetings with the managed care health plans under the medical services contract and the PIHPs under the behavioral health program. The work behind developing the capitation rates included receiving plan submitted data and analyzing the experience for each individual health plan.

As a final step in the rate development process, Milliman was responsible for calculating risk adjustment factors for all of the managed care populations through various mechanisms.

g) Risk Adjusted Rate Setting Techniques

The Medicaid managed care programs included in this rate development work was for numerous Medicaid eligible populations such as:

- Low-Income Family or Non-Disabled Children and Adults;
- Blind, Aged, and Disabled Children and Adults;
- ACA Expansion Population;
- Medically Complex Children (Title V and Title XIX eligible); and
- Medicaid and Medicare Dually Eligible.

Risk adjustment is an important part of the Medicaid managed care capitation rate process for the State of Michigan. For the medical services contract, we have utilized the CDPS+Medicaid Rx risk adjustment tool. The purpose of the risk adjustment under this portion of the program is to account for differences in the morbidity of the populations served by the different managed care health plans in the state. Based on the size of the covered population, we applied the risk adjustment differently for certain populations as follows:

- Low-Income Family and ACA Expansion: Due to the size of these two populations, we incorporated the risk adjustment output within regional adjustment factors throughout the state. With the size of the population being sizable enough to account for variance from one plan to another in a specific area, this adjustment was to account for the morbidity differences across areas of the state.
- Medically Complex Children and Blind, Aged, and Disabled Children and Adults: For these two populations, the morbidity associated with each individual covered member was assigned to the specific health plan where the member was enrolled. As the size of these two populations are significantly smaller, the individual morbidity assignments are more applicable to account for variances from one plan to another.

We utilized risk adjustment in the capitation rate setting process to reflect the morbidity variances among the individual health plans since the implementation of the managed care program. We relied upon CDPS, Medicaid Rx and the combination of CDPS + Medicaid Rx depending on the quality of the baseline medical claims data. As part of the Risk Adjustment Module, we developed techniques that study encounter data submissions by health plans for the completeness of the data. Further, we studied the data for health plans that may be gaming the data submission and verified that all the health plans submitted data with the same quality.

On the behavioral health program, we did not utilize the CDPS or Medicaid Rx system as that process would not be as accurate in identifying the variance in morbidity across a PIHP's covered population. Rather, we performed risk adjustment through a series of geographic adjustment factors. The geographic factors account for various items outside of a PIHP's control and specific to the catchment area to which they serve.

We recently changed the methodology for the geographic factor development that was rolled out over an 18-month process to ease the transition for both the state and the PIHPs.

Consistent with prior discussions, we have utilized the CDPS and Medicaid Rx risk adjustment tool for the State of Michigan as the preferred tool. We have not utilized HCC or CRG risk adjustment tools in Michigan due to the issues previously outlined.

- h) **Experience with Prepaid Inpatient Health Plan (PIHP):** The State of Michigan has operated a behavioral health managed care program separate from their traditional medical services managed care program since 1998. We have helped MDHHS transition the behavioral health delivery system from payments to each of the community mental health service providers and coordinating agencies based on historical cost to paying managed care capitation rates to 10 PIHPs. Services covered under this program include mental health, substance abuse, and home and community-based services (HCBS), including long-term supports and services (LTSS) for beneficiaries living in a variety of residential living arrangements.

We have worked extensively with expanding the presence of Medicaid managed care within the state through transition of previously fee-for-service populations and Medicaid expansion. Milliman has been involved in all aspects of the capitation rate-setting process, including actuarial certification of the capitation rates, discussions with the PIHPs regarding capitation rate calculations, and reviewing methodologies with CMS.

Over the past five years, we have worked with the State to more equitably distribute funding based on the morbidity of the population, instead of historical cost. To inform key stakeholders during this transition, we created an innovative methodology that split the historical cost for each PIHP into four mutually exclusive components: morbidity; treatment prevalence; utilization per recipient; and unit cost. Using this methodology as a foundation, we worked with the State to fully transition to risk-adjusted capitation rates based solely on morbidity and treatment prevalence differences existing between the PIHPs.

Due to the erosion of no fee-for-service equivalent fee schedule for the behavioral health services, we have recently been contracted to begin the development of a fee schedule based on data to be collected from the PIHPs. The fee schedule will be developed to expand the CPT-4 codes used in the behavioral health encounter data to be more service specific and to reflect the costs incurred by the PIHPs.

- i) **Experience with All-Inclusive Care for the Elderly Program (PACE):** Michigan develops the PACE capitation rate with internal staff from their actuarial department. We have worked with Michigan to ensure compliance with CMS PACE regulations in their PACE rate development, respond to CMS questions on the PACE rate development, as well as performed a technical review of their calculations. While this arrangement is different than how we assist many other states with their PACE capitation rate development, our flexibility allows us to meet the states needs for their specific staffing situation and provide the highest value to our clients.
- j) **Experience with Long-Term Care Managed Care Program (LTMC):** As discussed above, we have worked with the State of Michigan to develop managed long-term care capitation rates for beneficiaries with intellectual and/or developmental disabilities under the 1915(c) waiver program. Additionally, we assisted the state of Michigan to transition the historically fee-for-service MI Choice waiver program into managed care in 2013. The MI Choice waiver program is a home and community-based waiver for elderly and disabled Medicaid beneficiaries. The waiver provides Medicaid covered services similar to those provided in nursing homes, but in a beneficiary's own home or another residential setting.

The services provided to beneficiaries enrolled in MI Choice are delivered by 20 different waiver agents distributed across 14 regions within the state. The managed care capitation rates paid for MI Choice beneficiaries include costs related to direct services along with coverage for supports coordination/case management and administrative services. Since 2013, Milliman has been involved in all aspects of the capitation rate-setting process, including actuarial certification of the capitation rates, and reviewing methodologies with CMS.

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- l) **Staff experience:** Christopher T. Pettit, FSA, MAAA, principal and consulting actuary, was the lead consultant providing subject matter expertise, peer review of the documents, presentation and discussion with the contracting health plans, and presentation and discussion to the state's executive leadership team, including the Medicaid Director and DHHS staff. Many of the other individuals involved in the State of Michigan projects will provide additional support and review of the State of Nebraska projects. A copy of Mr. Pettit's resume has been provided in Appendix 6.

m) **References:**

State of Michigan Department of Health and Human Services
Penny Rutledge, Director, Actuarial Division
400 S. Pine Street
Lansing, MI 48933
Rutledgep1@michigan.gov
(517) 284-1191

We have additionally included work samples for the projects outlined above in Appendix 5.

I. SUMMARY OF BIDDER'S PROPOSED PERSONNEL/MANAGEMENT APPROACH

The professionals listed in this proposal have an exceptional depth of experience working with Medicaid populations. The Indianapolis office of Milliman, which is the lead office for the proposed contract with the State of Nebraska, has more than 50 actuaries and support staff that perform Medicaid consulting services on a full-time basis. These individuals collaborate on establishing best practices that are shared, discussed, and documented to provide the highest level of consulting services with efficiency. Additionally, these individuals collaborate across practices with consulting actuaries in Milliman's Milwaukee, Seattle, and San Francisco offices that also provide state Medicaid agency consulting. By collaborating across these four Milliman offices, we bring best practices for consulting to state Medicaid agencies from more than 100 actuaries and support staff and a total of nearly 20 different states.

The team of individuals that will report to the State of Nebraska will have access to a team of leading actuaries at Milliman to draw upon their expertise when needed. For example, one of state Medicaid agencies was in need of information regarding the inclusion of hearing aids. We were able to contact various lead consultants to identify the appropriate data and information to share with the inquiring state Medicaid agency. We provide them an estimated fiscal impact, as well as a clear outline of the considerations that would influence the final fiscal impact and other policy considerations.

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Mr. Robert Damler, FSA, MAAA, principal and consulting actuary in the Indianapolis office, will serve as the primary consulting actuary of this contract and will have the final responsibility for all deliverables. Mr. Damler has more than 30 years of actuarial consulting experience and more than 25 years of state Medicaid Agency consulting experience. Mr. Damler is a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries. Mr. Damler received a Bachelor of Science Degree in Actuarial Science from Ball State University in 1987. Mr. Damler has extensive experience working with State Medicaid Agencies, Medicaid health plans, professional organizations, and the Centers for Medicare and Medicaid Services.

Mr. Damler's experience includes volunteering as the chairman of the American Academy of Actuaries workgroup that wrote Actuarial Standard of Practice #49, Medicaid Managed Care Capitation Rate Setting. The Standard is required to be followed by all actuaries developing Medicaid capitation rates for State Medicaid agencies. Mr. Damler has been a regular presenter at professional meetings that have discussed the implementation of the actuarial Standard.

1. Initiation Phase: Project manager clarifies project deliverable, scope, and timing with the State before project is initiated.
2. Plan Phase: Project manager/actuary prepares a more detailed plan, including staffing and interim deadlines.
3. Work Phase: The work is performed, reviewed, and finalized. The Project manager monitors the budget and timing throughout the process to ensure that milestones are achieved and updates are provided to the State. If it is found during this part of the process that more data is needed or a change in project scope has occurred, Milliman will discuss with the State and develop an alternative action plan.
4. Project Quality Review Phase: Consistent with Milliman's internal quality review practices, all projects are independently reviewed prior to communication with a client. The review process involves reviewing all computer programs, electronic workbooks, and written documentation or communication to be shared with the client. The communication must be reviewed by someone with signature authority, which is an internal level of expertise assigned by Milliman. All Principals and Project Managers assigned to the State of Nebraska have signature authority that is approved for Medicaid managed care assignments.
5. Project Completion Phase: Project manager discusses the project with the State to validate that all deliverables have been met. Any required follow-up will be identified and provided to the State according to time commitments required.

In addition to Mr. Damler, we will assign a project manager to each statement of work. The project manager will coordinate work with internal staff, Mr. Damler, and communicate with the State of Nebraska regarding meeting coordination, data needs, and other issues related to project completion. The proposed leadership staff, which includes Mr. Damler and the Project Managers/Lead Consultants, for the Milliman Nebraska Medicaid team has more than 55 years of combined Medicaid consulting experience.

Project Managers / Lead Consultants:

- Christopher T. Pettit, FSA, MAAA – Principal and Consulting Actuary;
- Marlene T. Howard, FSA, MAAA – Principal and Consulting Actuary;
- Jill A. Herbold, FSA, MAAA – Principal and Consulting Actuary; and
- Jeremy A. Cunningham, FSA, MAAA – Consulting Actuary.

All Statements of Work required under the terms of this RFP will include oversight by Mr. Damler and another project manager previously identified.

J. PROJECT PLANNING AND MANAGEMENT

The principal contact for Milliman's State of Nebraska proposal will be Robert M. Damler, FSA, MAAA. Mr. Damler is a Principal and Consulting Actuary with the Indianapolis office of Milliman. Mr. Damler graduated in 1987 from Ball State University with a Bachelor of Science, Actuarial Science Degree. Mr. Damler has provided consulting services to state Medicaid agencies for more than 25 years. Mr. Damler has worked both directly as the primary contractor and supporting consulting in more than 15 states, including having worked with the State of Nebraska as it related to a fiscal projection of health care costs for the ACA Medicaid expansion discussions. Mr. Damler supported the ACA eligibility conversion and calculation of the eligibility MAGI thresholds for the State of Nebraska.

The following table illustrates the primary project manager(s) for each key statement of work deliverable, as well as the additional actuarial support that will be used for the State of Nebraska. Please note, Robert Damler will be the Principal contact and lead project manager on each of the projects with lead support from the project manager / lead consultant. Each project manager has at least 5 years' experience in the SOW project they are assigned.

Table 2. Project Staff

Description	Project Managers / Lead Consultants	Technical/Actuarial Support
SOW 1: Annual Capitation Rate Setting	Marlene Howard Jeremy Cunningham	Colin Gray Jaime Fedeler Matt Brunzman Oksana Owens
Rate Data Analysis and Manipulation	Marlene Howard Jeremy Cunningham	Colin Gray Matt Brunzman
Interim Reporting and Other Deliverables for Rate Setting Functions	Marlene Howard Jeremy Cunningham	Colin Gray Jaime Fedeler
Capitation Rate Updates	Marlene Howard Jeremy Cunningham	Colin Gray Jaime Fedeler Matt Brunzman
Capitation Rate Finalization	Marlene Howard Jeremy Cunningham	Colin Gray
SOW 2: Capitation Rate Rebasing	<u>Capitation Rate Rebasing:</u> <ul style="list-style-type: none"> • Jeremy Cunningham • Marlene Howard <u>Policy and Financial Management Consulting:</u> <ul style="list-style-type: none"> • Jeremy Cunningham • Robert Damler • Jill Herbold 	Colin Gray Jaime Fedeler Matt Brunzman Oksana Owens Anders Larson
SOW 3: 1915(b) Waiver	Chris Pettit	Jeremy Cunningham Jaime Fedeler
SOW 4: PACE	Chris Pettit	Colin Gray Jaime Fedeler
SOW 5: 1115 Waiver	Chris Pettit	Jeremy Cunningham Jaime Fedeler
SOW 6: Dental Rate Setting	Chris Pettit	Colin Gray Jaime Fedeler Matt Brunzman Oksana Owens
Rate Data Analysis and Manipulation	Chris Pettit	Colin Gray Matt Brunzman
Interim Reporting and Other Deliverables for Rate Setting Functions	Chris Pettit	Colin Gray Jaime Fedeler
Capitation Rate Updates	Chris Pettit	Colin Gray Jaime Fedeler Matt Brunzman
Dental Capitation Rate Finalization	Chris Pettit	Colin Gray
SOW 7: Dental Rebasing	Chris Pettit	Colin Gray Jaime Fedeler Matt Brunzman Oksana Owens

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K. SUBCONTRACTORS

Milliman does not plan to utilize a subcontractor for this contract.

Technical Approach

Technical Approach

This section contains our responses to the requested information for the individual scopes of work from section V of the RFP.

SOW 1 – Capitation Rate Setting

The purpose of this SOW is to secure Actuarial and Consulting Services to develop specific full risk capitation rates by rate cell based on factual data and trends in pricing and certified as such by the actuary for the Medicaid Managed Care program.

The capitation rate setting activity can be expected to occur each state fiscal year and may be additionally required due to changes resulting in Federal and/or State requirements, program changes or changes in coverage.

Activities related to capitation rate setting include but are not limited to:

- a. *Capitation Rate Methodology Development and Determination*
 - b. *Develop Managed Care cohorts and capitation rates, using a variety of parameters, including but not limited to, recipients' age, gender, category of eligibility, level of care, and geographic location;*
 - c. *Develop a risk adjustment methodology; and*
 - d. *Develop capitation rates that are actuarially sound.*
1. *Rate Data Analysis and Manipulation:*
 - a. *Analyze the financial statement data of managed care plans with focus on relevant issues affecting capitation rate development;*
 - b. *Analyze any programmatic changes that will be effective in the state fiscal year and utilize the data to calculate adjustment factors to be applied to the existing capitation rates, as applicable;*
 - c. *Analyze medical and pharmacy service utilization and cost profile patterns by category of service for all Managed Care cohorts;*
 - d. *Provide technical assistance in the evaluation of individual MCOs, including areas such as IBNR claims adjustments, administrative overhead, care management overhead, and appropriateness of medical costs incurred; and*
 - e. *Analyze inflation, economic, and health related trends.*
 2. *Interim Reporting and Other Deliverables for Rate Setting Functions:*
 - a. *Participate in periodic meetings with Department staff to discuss the parameters, priorities, methodology, timelines, and ongoing results of capitation rate development in each rate cycle;*
 - b. *Provide documents and data, as directed by Department staff, to discuss at these meetings;*
 - c. *Provide project management staff and project/timeline updates for all tasks associated with the capitation rate setting process;*
 - d. *Work collaboratively with Department staff to improve the accuracy and efficiency of the existing data sources and new data sources used for capitation rate development;*
 - e. *Work collaboratively with Department staff and other Department vendors to improve the accuracy and efficiency of capitation rate development methodologies;*
 - f. *Provide the Department with exhibits, reports, and calculations in the format(s) specified by the Department, including all formulae, databases, data sets, analyses, and documents relevant to the capitation rate setting process;*
 - g. *Develop work plans for rates to be determined including milestones for completion;*
 - h. *Meet work plan milestones and timelines as agreed upon with the Department,*
 - i. *Provide staff training in methodologies used to develop rates; and*
 - j. *Develop or assist in development of rate methodology for any new program(s) that may be implemented during the contract period.*
 3. *Capitation Rate Finalization:*
 - a. *Produce an actuarial memorandum that provides a detailed description of the methodology for developing the capitation rates along with all actuarial assumptions made and all other data, and materials used in the development of rates;*
 - b. *Certify that the rates comply with all requirements for managed care rate setting as described in the Balanced Budget Act (BBA) of 1997 including attestations of actuarial soundness and certification of plan rates in accordance to the BBA;*

- c. *Provide actuarial certification as to the soundness of the rates along with all associated exhibits supporting the development of capitation rates*
- d. *Provide necessary certification to meet the requirements of the CMS rate setting consultation guide;*
- e. *Prepare all presentation material, attend and participate in MCO meetings as requested to promote approved recommendations.*
- f. *Attend, participate, and provide support in the Department's rate setting discussions and meetings with CMS.*
- g. *Submit final rates and final rate exhibits 150 days or 5 months prior to their effective date.*

A Note on the Response Structure

Section V.C of the RFP indicates that the information that should be provided for each proposed service. Additionally, Section VI.A.3 outlines the required structure for the Technical Proposal. Therefore, we have structured our response as follows, to address the requested information:

VI.A.3.a Understanding of the Project Requirements

- Prior experience performing this service for other states or companies of similar size and Medicaid Managed Care enrollment numbers to the State of Nebraska (Section V.C.c).
- Successes achieved, in regards to prior experiences listed above (Section V.C.d);
- Description of challenges present with rate-setting and how bidder addresses each challenge (Section V.C.e);
- Number of years performing the service (Section V.C.f);
- All analysis, findings and/or recommendations are to be in line with current statutory/actuary as it applies to each SOW (Section V.C.j).

VI.A.3.b Proposed Development Approach

- Methodology for performing the service (Section V.C.b)

VI.A.3.c Technical Considerations

- Any requirements to be provided by the Department (Section V.C.g)

VI.A.3.d Detailed Project Work Plan

- Process, staffing and timeframe (Section V.C.a);
- An estimated timeline for completion of services (Section V.C.h)

VI.A.3.e Deliverables and due dates

Understanding of the Project Requirements

Milliman has a clear understanding of the capitation rate setting process and all the requirements entailed therein. **The Milliman Medicaid Consulting Group has been developing capitation rates for over 20 years on behalf of more than 20 state and territorial Medicaid agencies.** Milliman has performed all of the capitation rate activities outlined in this scope of work for each of the state and territorial Medicaid agency clients where we are the certifying actuary.

The Indianapolis office—the lead offeror for this proposal—is currently the state’s actuary for five Medicaid agencies (Illinois, Indiana, Michigan, Ohio, and South Carolina). In addition to these five states, we are performing ad hoc services for Medicaid agencies in Louisiana, Alaska, and Puerto Rico. For each of these clients and projects, we have employed **innovative, customized strategies through a full-service, transparent approach with unmatched attention to detail.**

With the growing popularity of managed care as the primary source of care delivery for Medicaid beneficiaries, risk-based managed care program analysis and capitation rate development have become the most prominent component of our Medicaid consulting engagements. Our extensive experience with Medicaid programs enables us to take a comprehensive view of the managed care and fee-for-service delivery systems and consider any relationships between these care delivery sources when developing the managed care capitation rate.

Specific to managed care capitation rate setting, we will leverage our experience with various state Medicaid programs to provide the State of Nebraska’s Department of Health and Human Services (“Department”) with a high quality and efficient work product to reflect best practices for managed care programs aligned with the triple aim of:

- Reducing costs for delivering necessary health care to enrollees;
- Assuring access for enrollees to all Medicaid covered services; and
- Maintaining quality of health care service delivery with an emphasis on prevention.

Given Nebraska’s recent transition from a limited managed care program with a Prepaid Inpatient Health Plan (PIHP) primarily covering behavioral health services to a comprehensive managed care delivery system effective January 1, 2017, **we are prepared to work alongside the Department in evaluating the first full year of Heritage Health and reviewing the managed care program’s performance to enhance our capitation rate setting analyses.**

We will review the impact of physical and behavioral health integration in the Heritage Health program, as well as any key impacts on the care delivery provided to the approximately 230,000 enrollees that span a wide range of population types (non-disabled, disabled, long-term care, and dual eligible individuals). Further, recognizing that CMS will require actuaries to certify to specific rates for each rate cell rather than to a rate range for rating periods



Rate Periods

Beginning on or After July 1, 2018

CMS requires actuaries to certify to specific rates for each rate cell rather than to a rate range. To reduce the administrative burden, CMS allows rates to be revised by up to 1.5% without requiring recertification.

During preliminary discussion with the state, Milliman provides information on assumptions that would previously have varied to create a rate range, and on the sensitivity of the rates to those assumptions.

We can also provide guidance on how CMS' elimination of rate ranges from the certification may affect the state's decision on whether to set fixed rates or use competitive bidding.

<http://www.milliman.com/uploadedFiles/insight/2015/fixed-offer-competitive-bid.pdf>

beginning on or after July 1, 2018 (with rates allowed to be revised by up to 1.5% without requiring recertification), Milliman will provide information on assumptions that would previously have varied in order to create a rate range. We will also provide guidance on how CMS' elimination of rate ranges from the certification may affect the state's decision on whether to set fixed rates or use competitive bidding.

The following sections showcase our ability to build upon basic capitation rate development techniques to add value to the process and develop capitation rates for our state Medicaid clients that emphasize quality, efficiency, and adequacy in the Medicaid risk-based managed care environment.

Key Successes and Challenges

Milliman has helped a number of state Medicaid agencies achieve success through its capitation rate setting consulting services. We highlight a few specific examples below, as well as provide detailed work product samples in the appendices to demonstrate how our approach will contribute to the success of the State of Nebraska's Medicaid program. At the same time, we recognize that capitation rate development is a complex task, and we also provide some examples of challenges that may arise during the process. For each challenge, we also provide a description of how we work to avoid these situations and mitigate the impact, should they occur.

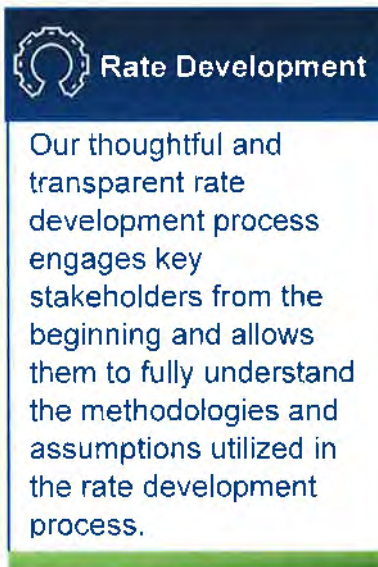
Success: Medicaid Capitation Rates

Milliman has worked with more than 20 state Medicaid agencies to develop actuarially sound capitation rates for managed care programs covering various qualified Medicaid beneficiaries. These programs range from established managed care populations to new managed care populations such as foster children, special needs children, and the Affordable Care Act expansion populations. Over the course of our relationship with these states, our capitation rate development analyses have supported the successful transition of different populations into a managed care environment. We also assist states to maintain the stability of these managed care programs by providing continuous review and updates of the previously calculated rates, as appropriate.

Our capitation rate certification reports are comprehensive and focus on documentation transparency. CMS places an emphasis on documenting the development of key assumptions, data adjustments, and other factors incorporated into the rate development process. Merely providing the value of an assumption no longer satisfies the CMS/OACT review process. Based on our regular communication with CMS officials and participation in leading industry events, we are familiar with the documentation requirements for key assumptions in the rate setting process. Furthermore, we have been committed to a level of transparency in our documentation reports that are structured according to the applicable Medicaid Managed Care Rate Development Guide such that the implementation of the CMS/OACT review process has resulted in a minimal number of questions prior to approval.

Another component of our capitation rate documentation process is providing the CMS rate certification report to the participating health plans. This gesture fosters a mutually beneficial relationship between states and health plans and documents the full capitation rate setting process for these key stakeholders.

Therefore, not only does our transparent rate development process satisfy CMS requirements, but it also allows the health plans to fully understand the methodologies and assumptions utilized in the rate development process.



Rate Development

Our thoughtful and transparent rate development process engages key stakeholders from the beginning and allows them to fully understand the methodologies and assumptions utilized in the rate development process.

An example of our success in developing capitation rates and the accompanying documentation for the State of Ohio is included in Appendix 5. Although enrollment in Ohio's managed care program outnumbers the Nebraska managed care program, the underlying approach to capitation rate development for Heritage Health will be consistent. Note that portions of the appendices in the sample rate certification have been limited to a single region for illustrative purposes to reduce the number of pages in our response to this RFP.

Success: Risk Adjustment

Risk adjustment is an important mechanism utilized in the support of a sustainable Medicaid managed care program for participating MCOs. The focus of the health plan risk assessment process is to allow plans to compete on delivery of care and efficient management of patient needs as opposed to limiting exposure from higher-risk individuals.

An example of our success in developing risk adjustment methodologies and the implementation of risk adjustment is included in Appendix 5. Appendix 5 contains a report detailing the methodology and results of a budget neutral risk adjustment, as well as displaying prevalence report summaries provided to the contracted health plans and the state that illustrate the number of members attributed to each risk adjustment disease condition class.

Furthermore, our attention to detail throughout the risk adjustment process is unrivaled. Our consultants scrutinize every result for anomalies that may allow us and our clients to better understand the current state of their Medicaid programs or even the healthcare environment as a whole. For example, due to an uptick in multiple sclerosis diagnoses, Milliman consultants preparing a risk adjustment analysis for the State of Indiana were able to identify how changing prescription patterns impact risk scores under a previous version of the popular Chronic Illness and Disability Payment System risk adjustment model (v.6.2)³.



Risk Adjustment Process

Our deep understanding of the risk adjustment process and attention to detail enable us to nimbly capture and adjust for changes to data and practice patterns as appropriate so that they don't produce unintended anomalies in the risk scoring analysis.

Success: Interim Reporting and Collaboration

Milliman works diligently to continuously improve all facets of our operations with state Medicaid clients. In order to continually make progress, it is imperative that we collaborate effectively with all stakeholders involved. One way in which we achieve this effective collaboration is through frequent updates and communication. Throughout the entire rate setting process, as well as during the rest of the year, we work with our clients and the contracted health plans to improve the data sources and methodologies used in the Medicaid programs. For example, a few years ago, the managed care encounter data quality for one of our state Medicaid clients was sufficiently inadequate such that frequent requests for supplemental data were necessary. This included a specific detailed data request to supplement the encounter data utilized in developing the base data cost models for capitation rate development. However, through careful data validation, ongoing monitoring, and collaboration with the state and MCOs, we have helped incrementally improve the encounter data so that it is now within 1% of plan-reported financial summaries.



Data Validation

Through careful data validation, ongoing monitoring and collaboration with states and MCOs, we have gained tremendous improvement in data accuracy for capitation rate setting and other key analytical purposes.

³ <http://us.milliman.com/insight/2018/How-changing-opioid-prescribing-patterns-can-impact-risk-scores/>

This tremendous improvement in data accuracy demonstrates the value added by our interim reporting processes, as well as our dedication to the goals we share with state clients and related stakeholders.

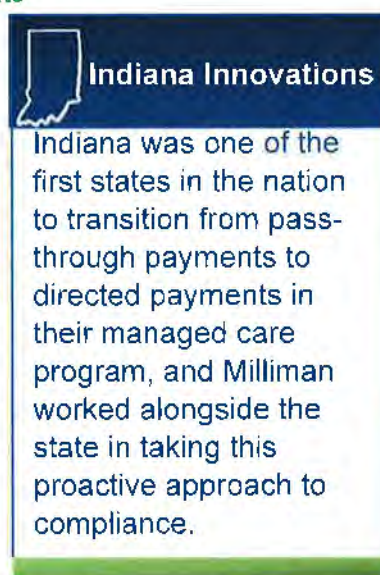
Success: Regulatory Compliance – Institutions for Mental Disease (IMD)

For the State of Michigan's Medicaid expansion population (Healthy Michigan), all IMD services were previously excluded from the capitation rate development prior to release of the Medicaid managed care Final Rule in the spring of 2016. The regulations clarified the ability for health plans to cover short-term IMD stays (up to 15 days in a month) for adults within the managed care program as an "in-lieu-of" service. In the development of the rates effective October 1, 2016, adjustments were made to the underlying base experience to include short-term IMD stays of 15 days or less in a given month and to exclude all expenditures associated with IMD stays of greater than 15 days. This adjustment to the rate methodology, in accordance with the newly published regulations, allowed the State to receive federal funding for a portion of the Healthy Michigan IMD services that were previously paid solely with state-only dollars. The Healthy Michigan capitation rates were submitted to CMS and approved for payment.

Success: Regulatory Compliance – Pass-Through Payments

The Medicaid managed care Final Rule requires the elimination of pass-through payments. While it permits inpatient and outpatient hospital pass-through payments to be phased out over the 10-year period from July 1, 2017 to July 1, 2027, Milliman assisted the State of Indiana in taking a proactive approach to compliance. Following a successful pilot in 2016, Indiana eliminated all hospital pass-through payments in managed care programs effective January 1, 2017, replacing them with enhanced minimum hospital reimbursement. The enhanced reimbursement approximates the upper payment limit and is funded through a hospital assessment fee. Indiana was one of the first states in the nation to transition from pass-through payments to directed payments, as allowed under §438.6(c). By making the transition early and avoiding the phase-down reductions, Indiana was able to maintain uninterrupted funding to hospital providers.

Drawing upon our familiarity with the constantly evolving healthcare environment, we alert clients to potential concerns early, which allows for planning, communication, and a thoughtful response. Building on deep Medicaid expertise and experience across many states, our consultants work hard to appreciate each state's unique circumstances and to become a trusted advisor. We work with each state to generate customized and innovative solutions that minimize disruption to key stakeholders.



Challenge: Unique Program Designs

One of the challenges inherent to the rate setting process is that nearly every state Medicaid program has unique qualities. For example, in Indiana, the managed care program covering the expansion adult population features many program designs that are not traditionally found in Medicaid programs. For example, each enrollee in the program receives a personal health savings account that functions as an annual deductible in the rate setting process; expenditures subject to this deductible are the responsibility of the state rather than the health plans, and so these amounts are projected and excluded from the capitation rates. Since no data specific to this feature were available when the savings account was first introduced, we created simulations to test and project the impact of the deductible under various scenarios when developing the capitation rates. Additionally, because this program design feature also increased uncertainty in the rates, we worked with the state and the health plans to implement experience monitoring and risk mitigation mechanisms that alleviated concerns for various stakeholders.

Our wealth of knowledge, innovative approaches, and ability to quickly adapt to an evolving Medicaid program landscape underscore the customized service we provide our state Medicaid clients to help them pursue leading edge initiatives, and we will also apply this level of quality to the services we provide to the Nebraska DHHS.

Challenge: Identification of Programmatic Changes

As part of the rate setting process, we estimate the impact of any policy and/or program changes between the experience period and rate period. There are often many programmatic changes or modifications to policies throughout the capitation rate development process. This is where the communication loop between the Department and Milliman is crucial. To address this challenge, we set up periodic meetings during the capitation rate development project at a pre-determined frequency most beneficial to and reasonable for our clients (typically either weekly or bi-weekly) and review key items for the capitation rate development analysis, as well as interim deliverables. This periodic check-in supports our commitment to transparency in the analysis, and also provides DHHS the opportunity to review our understanding of the program adjustment and ensure our interpretation is consistent with the Department's policy.

Challenge: Effective Communication

Our commitment to keeping open lines of communication with our clients and our rigorous peer review process contribute to positive relationships with our clients and minimizing unanticipated issues. On occasion, however, an unexpected issue arises despite our best efforts to the contrary. For example, in the State of Illinois, there are 13 different contracted MCOs, and it can prove difficult to ensure all the different health plans have an effective understanding of every detail in the rate setting process. In the situation where there exists a misunderstanding, we employ the following action plan:

- Set up a meeting with appropriate Department staff to discuss the issue and ensure mutual understanding, identify next steps, and set up a timeline for resolving the issue;
- Provide assistance to the Department, as appropriate, in communicating the issue to affected parties;
- Commit resources as needed to determine any fiscal impact related to the issue in a timely manner;
- Communicate fiscal impact to the Department and provide assistance in communicating the fiscal impact to other affected parties, as appropriate; and
- Follow up with the Department to ensure that the issue is resolved.

Challenge: Minimizing Work Product Errors

Errors contained in the work product may damage the credibility of the Department's actuary and prolong the rate development process. To reduce the likelihood of errors being contained in our work product, Milliman has developed a peer review process that is intended to ensure all client deliverables are reviewed by a qualified individual. The process that we have outlined below will be followed for all deliverables, including electronic communication. The peer review process has several key components.

From our experience certifying Medicaid capitation rates in a number of states, we have had frequent interaction with CMS during client calls. Our ability to respond to any of their questions in a timely manner allows for more efficient review and approval of the certified capitation rates.

Regulations and Actuarial Standards of Practice

Milliman will provide technical and professional advice to ensure any proposed change during the capitation rate development process fully complies with 42 CFR 438.4(a), the most recent Medicaid Managed Care Rate Development Guide published by CMS, and all professional actuarial standards of practice. Milliman actuaries stay up to date on the many regulations issued by regulatory bodies, because a deep knowledge of the rules and regulations allows us to best advise the state on how to maximize value under those rules.

When developing capitation rates, we ensure that the certified rates are "actuarially sound" for purposes of 42 CFR 438.4(a), according to the following criteria:

- The capitation rates will provide for all reasonable, appropriate, and attainable costs that are required under terms of the contract and for the operation of the managed care plan for the time period and population covered under the terms of the contract, and such capitation rates will be developed in accordance with the requirements under 42 CFR 438.4(b).



Milliman Best Practices

Milliman actuaries stay up to date on regulations issued by regulatory bodies, because a deep knowledge of the rules and regulations allows us to best advise the state on how to maximize value under those rules.

To ensure compliance with generally accepted actuarial practices and regulatory requirements, we refer to published guidance from the American Academy of Actuaries (AAA), the Actuarial Standards Board (ASB), the Centers for Medicare and Medicaid Services (CMS), and federal regulations. Specifically, we reference the following materials during rate development activities:

- Actuarial standards of practice applicable to Medicaid managed care rate setting, including:
 - ASOP 1 (Introductory Actuarial Standard of Practice);
 - ASOP 5 (Incurred Health and Disability Claims);
 - ASOP 23 (Data Quality);
 - ASOP 25 (Credibility Procedures);
 - ASOP 41 (Actuarial Communications);
 - ASOP 45 (The Use of Health Status Based Risk Adjustment Methodologies); and
 - ASOP 49 (Medicaid Managed Care Capitation Rate Development and Certification);
- Actuarial soundness and rate development requirements in the Medicaid and CHIP Managed Care Final Rule (CMS 2390-F) for the provisions effective during the rating period; and
- The most recent Medicaid Managed Care Rate Development Guide published by CMS.

Consistent with the requirements under 42 CFR 438.4(a), we define the term "actuarially sound" consistent with ASOP 49: *"Medicaid capitation rates are 'actuarially sound' if, for business for which the certification is being prepared and for the period covered by the certification, projected capitation rates and other revenue sources provide for all reasonable, appropriate, and attainable costs. For purposes of this definition, other revenue sources include, but are not limited to, expected reinsurance and governmental stop-loss cash flows, governmental risk-adjustment cash flows, and investment income."*

For purposes of this definition, costs include, but are not limited to, expected health benefits; health benefit settlement expenses; administrative expenses; the cost of capital, and government-mandated assessments, fees, and taxes.”⁴

Based on our experience with multiple other state Medicaid agencies, the level of scrutiny being applied to risk-based managed care rates by CMS officials has significantly increased from historical levels. While the Medicaid Managed Care Rate Development Guide itself does not reflect a departure from guidance outlined in 42 CFR 438.6(a) or the former CMS Managed Care Checklist, instructions in this document request a much greater demonstration of the “why” and “how” in the rate setting process, versus merely documenting the final values of the assumption or action.

Additionally, the request for more detailed information from CMS raises the expectations of current and prospective MCOs that DHHS’ actuary will provide a full and detailed explanation of the rate setting methodology. To the extent this process was not being followed, MCOs would have justification in the contracting or capitation rate review process that would indicate DHHS was not following federal guidance.

Milliman has an in-depth understanding of the federal regulations and guidance covering the development of Medicaid risk-based managed care capitation rates. We regularly participate in calls with the CMS Office of the Actuary pertaining to the rate setting development process. Additionally, several of the team’s members are active participants in industry workgroups that address capitation rate setting issues.



Example

Robert M. Damler, a managing partner of the Milliman Medicaid Consulting Group in the Indianapolis office, was chair of the committee that drafted the Actuarial Standard of Practice promulgated by the Actuarial Standards Board that provided guidance on the capitation rate setting process for Medicaid managed care populations. By following these standards, it is ensured that all rate certifications and related projects are performed or managed by a member of the American Academy of Actuaries who is also a Fellow or Associate of the Society of Actuaries.

Proposed Development Approach

Milliman’s Medicaid capitation rate setting methodology follows a standard underlying process but is customized to each client and population based on local characteristics, MCO market, benefits, and program maturity.

Our experience in Medicaid rate setting has included traditional TANF, ACA Medicaid expansion, disabled, Medicare-Medicaid dual-eligible, behavioral health, home-and-community based waivers, and special needs populations. This work has provided us the ability to benchmark MCO managed care efficiency on a population specific basis. Additionally, the proposed Milliman Nebraska Medicaid team has extensive experience in creating capitation rates for new and innovative managed care programs, such as the ACA Medicaid expansion adults, managed long-term care (MLTC), and Financial Alignment Demonstration initiatives for dual-eligible populations.

⁴ <http://www.actuarialstandardsboard.org/asops/medicaid-managed-care-capitation-rate-development-and-certification/>

The RFP outlines three specific main tasks to be performed under SOW 1: Capitation Rate Setting:

1. Rate Data Analysis and Manipulation
2. Interim Reporting and Other Deliverables for Rate Setting Functions
3. Capitation Rate Finalization

This section outlines our proposed development approach for each of these tasks.

1. *Rate Data Analysis and Manipulation*

Our process for developing capitation rates is thorough and in compliance with Actuarial Standards of Practice.



The graphic above and corresponding narrative outlines the general process that we follow to develop actuarially sound Medicaid managed care capitation rates across numerous programs and populations. Beginning with the managed care program's base rates and culminating in the final capitation rate through the application of material program adjustments.

As the graphic above indicates, we begin with the managed care program's base rates and culminate in the final capitation rate through the application of material program adjustments.



Step 1: Current or Rebased Base Data

The starting point for the rate data analysis and manipulation will be either:

1. The existing data used for the current rates; or
2. Rebased data as described in SOW 2.

Under the first scenario, we will review all data and assumptions to confirm the historical data still accurately represents the program such that it can be used for capitation rate development.

For further details on the second scenario, please see the response to SOW 2 – Capitation Rate Rebasing.

In both cases, we will ensure data sources are compliant with CMS regulations and all applicable Actuarial Standards of Practice.



Step 2: Prospective Program and Policy Adjustments

We will apply adjustments to the base data to normalize for policy or program changes that have occurred or are expected to occur after the base experience period that will impact utilization and costs during the rate period. Examples of material types of policy or program changes and relevant considerations for each adjustment include the following.

- **Provider reimbursement policy changes:** In many states, MCO provider reimbursement references the Medicaid fee-for-service fee schedule or is even contractually obligated to reimburse at a minimum fee schedule. Even in the absence of such explicit ties, Medicaid reimbursement policy tends to set provider expectations for reimbursement. As part of capitation rate development, we analyze the impact of provider reimbursement changes that occur after the base period by completing a repricing analysis on all base data to the updated fee schedule for the impacted category of service.

Reimbursement analysis can involve an intricate process that requires evaluation at the claim detail level. It is also imperative that the individuals performing the analysis are well-versed in varying types of provider reimbursement within a Medicaid population. For one thing, the fiscal impact of a reimbursement change may differ between populations due to variation in service mix. For example, an increase in reimbursement for substance use disorder services will tend to be much more costly in an adult population than in a child population, due to higher substance abuse prevalence among adults.

It can also be detrimental to estimate a future fiscal impact by blindly using data from a historical period without appreciating relevant externalities.



Reimbursement Analysis

It is imperative that provider reimbursement analysis be performed by consultants who are well-versed in varying types of reimbursement methodologies coupled with a keen understanding of Medicaid populations.

Using a similar example, one might use data from 2014 to estimate that a 20% increase to reimbursement for substance abuse services would have cost \$1 million in 2014, but this could be a poor estimate for future time periods, as higher demand for services might cause the fiscal impact to be several times higher in 2019.

The impact of a reimbursement change that involves grouping methodology, such as a Diagnosis-Related Group (DRG) change for inpatient services, requires analysis of multiple interacting changes. Changes in the grouping methodology will impact the mix of services. At the same time, the state may wish to change the relative weights assigned to each DRG, either to update based on more recent historical experience or to shift incentives between different types of admissions (for example to improve reimbursement for maternity or behavioral health admissions), and finally, the base conversion factor may be updated, including relativities between facilities (for example increasing reimbursement for children's hospitals).

Finally, a reimbursement analysis may consider utilization adjustments, as the reimbursement change may have an impact on member or provider behavior during the contract period.



Capitation Rates

Capitation rates must reflect the population to be covered by the managed care program during the contract period. Milliman conducts thorough analysis to determine any potential morbidity impacts or risk selection adjustments that are necessary in the development of final capitation rates.

- Program changes: Program changes cover a wide variety of services and benefits. Examples of program changes include but are not limited to:
 - Removal of limits;
 - Expansion of services;
 - Carve-in of new services;
 - Legislative mandates;
 - Elimination or reduction of cost sharing; and
 - Utilization management changes.

Our analysis is program-specific and may include a review of fee-for-service data or benchmark data, among other analyses. The professionals servicing this contract maintain Medicaid fee-for-service and encounter data representing approximately 11 million covered lives. Maintaining the confidentiality of our clients' data, we use this information to provide informed analytics on state benchmark metrics related to specific benefit limit changes, take-up rates for service expansions, and utilization benchmarks for varying utilization management policies to provide DHHS with a high quality and efficient work product to develop and estimate program change impacts.

- Population changes: A comprehensive review and consideration of population changes is a critical component of the capitation rate setting process. In collaboration with DHHS, we will review past enrollment processing patterns during the base experience period and compare with current and projected enrollment patterns that may impact the contract period. This includes, but is not limited to, changes in redetermination activity, changes in managed care eligibility qualifications. For example, we recently assisted a state client in identifying material changes in the MMIS capitation payment population assignment logic. We are working with the state to develop alternative solutions to maintain actuarially sound capitation rates given this change.

We also may need to adjust capitation rates to reflect populations transitioning into managed care, transitioning out of managed care, or between managed care programs. We will complete a thorough analysis to determine any potential morbidity impacts or risk selection adjustments that may be necessary in the development of the final capitation rates.

- **Fiscal impact analysis:** Prior to implementation, we routinely assist states by providing estimates of the impact of policy and program changes. We provide the impact to capitation expenditures as well as to the Medicaid program as a whole. In addition, we typically prepare total impact and state share impact estimates.



Step 3: Managed Care Efficiency Adjustments

Upon review of MCO encounter data and financial report data, we will identify opportunities for potential cost savings due to MCO care coordination and other activities. Such opportunities will be identified by reviewing key service categories to quantify potential managed care efficiencies to control costs and improve health outcomes. We will also use our experience with developing managed care capitation rates for other Medicaid programs to benchmark experience in Nebraska relative to other states.

The potential for managed care savings must be viewed through the prism of the current delivery system's opportunities and limitations in order to determine what is achievable. Achievable savings should be assessed with the following considerations in mind:

- Maturity of the program;
- Delivery system infrastructure and capacity;
- Policy constraints;
- Current level of care management efficiency in the managed care program; and
- Benchmarking against peers.

We will work collaboratively with DHHS to understand the goals of the managed care program as it relates to controlling health care costs and managing quality of care. We will address these goals through the evaluation and analysis of managed care efficiencies using a set of tools developed specifically for use in Medicaid managed care programs.

Quality Healthcare

Milliman understands the value of managed care efficiency adjustments in recognizing continuous improvement to the service delivery system to support the program goals of providing quality healthcare in the most efficient way possible.

Inpatient Hospital Services

- **Readmissions:** An inpatient admission resulting in a readmission for the same diagnosis-related group (DRG) within 30 days is identified as a readmission. We summarize and review the readmissions included in the base data to develop target readmission reductions for the contract year. DHHS readmissions policies as well as MCO readmission policies collected through the annual MCO survey are taken into consideration when developing target efficiency levels.
- **Potentially avoidable admissions:** Potentially avoidable inpatient admissions in the base data are identified using the Agency for Healthcare Research and Quality (AHRQ) prevention quality indicator (PQI) and pediatric quality indicator (PDI) algorithms. The potentially avoidable admissions are summarized by PQI, PDI and population grouping to illustrate potential savings available in the managed care program. We also summarize the base data to benchmark the MCOs against their peers to inform the managed care targets reasonably achievable for the managed care program in the contract year.

Outpatient Hospital Emergency Room Services

- **Potentially avoidable emergency room visits:** Using algorithms developed by Milliman clinicians, we identify potentially avoidable diagnosis groups in hospital outpatient emergency room services. Emergency room visits are further categorized by severity based on the evaluation and management code included on the emergency room claim to target savings in the three lowest severity groups. To recognize the need for appropriate care in these diagnosis groups, replacement costs at a primary care physician setting are included in the managed care efficiency targets.



Milliman's Efficiency Tools

Milliman's suite of managed care efficiency tools aims to achieve reasonable, appropriate and attainable efficiencies in all areas of the actuarial cost model, while recognizing the natural interdependencies between service categories

Pharmacy Services

- **Generic dispensing rates:** We summarize prescription drug utilization in the base data by drug group (generic, brand, and specialty) and therapeutic class to identify opportunities where improved generic dispensing rates by MCOs could lower cost to deliver the same level of care. MCO experience is summarized by therapeutic class to establish benchmarks used to estimate achievable generic dispensing rates.
- **Polypharmacy:** We review prescription drug utilization by member to identify members using multiple medications in a given month to recognize potential efficiencies for managing prescription drug usage.
- **Abuse:** We complete a review and evaluation of prescription drugs indicated to have likely potential for abuse in the base data.

Maternity Delivery Mix

- **Vaginal/cesarean delivery mix:** To support initiatives to improve the health and health care of pregnant women and infants, we summarize and review the mix of vaginal and cesarean deliveries by facility over time to identify facilities with

cesarean rates that are much higher than the average. A targeted delivery mix will be developed to optimize the use of vaginal deliveries, discourage increased utilization of cesarean deliveries to maximize payment rates, and improve the quality of care.

Provider Contracting

- **Provider reimbursement targets:** Provider contracting is an integral part of the MCOs administrative responsibilities to ensure optimal cost efficiency in the managed care program. We perform repricing analyses by major category of service in addition to collecting provider contracting information through the annual MCO survey to evaluate the estimated contracting levels for each MCO. The MCOs are benchmarked against each other and the Medicaid fee-for-service fee schedules to identify potential areas of inefficiency in the reimbursement rates observed in the base data. In conjunction with the repricing analyses and discussions with DHHS, we will develop managed care efficiency contracting targets that can be reasonably achieved in the contract year.

We will develop reports that illustrate the results of the managed care efficiency analyses at both an executive summary level and a detailed technical level for individual programs or populations.

The focus of both types of reports will be to provide DHHS with identification of changes in metrics relative to prior periods or in relation to previously defined benchmarks or goals and illustrating variance in defined metrics amongst peer groups.

Impact to Rate Development Process

In order for risk-based managed care to truly reflect a "pay-for-performance" arrangement with contracted MCOs, capitation rates should be developed to reflect achievable levels of utilization and cost efficiency while supporting a high quality of care delivery. A capitation rate development methodology that does not make adjustments to historical experience to reflect any performance deficiencies amongst contracted MCOs would limit DHHS' ability to incent future improvement.

One illustrative example may be where DHHS has a target Cesarean delivery rate of 30% in the prior year, but contracted MCOs only achieved a 35% rate during that time period. The historical experience should be adjusted beyond the MCOs' actual experience rate to reflect estimated costs closer to the 30% Cesarean rate; otherwise DHHS would be paying MCOs a higher future rate for failing to meet this performance goal. Using the managed care efficiency tools and resources as discussed above, we will provide DHHS with a rate setting process that will:

- Identify deficiencies and achievements in MCO performance during historical experience periods using established data-driven methodologies;
- Document support for managed care efficiency adjustments to the base experience used in the capitation rate development by linking adjustments to specific performance measures; and
- Assist DHHS with establishing incentives and contractual measures for MCO performance during future rate periods based on performance benchmarks.

Comprehensive View

Evaluating MCO performance at the service category level is a fundamental exercise in identifying potential inefficiencies in the managed care program. It is also important, however, to evaluate the managed care performance as a whole to determine whether additional adjustments should be applied to the base capitation rate.

Our comprehensive analysis underlying the capitation rate development process incorporates financial statement information from all aspects of health plan operations including claims, finance, accounting, and administrative operations to assess the adequacy of the capitation rate and to ensure that any applicable loss ratio targets are achieved in accordance with contract requirements.



Step 4: Non-Benefit Costs

Non-benefit costs are one of the components of capitation rate setting that is most highly scrutinized by stakeholders. From DHHS' perspective, non-benefit expenses reflect program dollars that are not spent on the direct medical services for Medicaid beneficiaries. From the MCOs' perspective, non-benefit expenses reflect the cost of administering a Medicaid managed care plan including administrative staffing, basic operational needs, and innovative care management solutions. Non-benefit costs must also allow for a reasonable return on invested capital and risk borne by MCOs.

Non-benefit expenses must be managed in a manner that illustrates prudent use of program dollars while providing reasonable allowance for MCOs to provide comprehensive care management to promote positive outcomes for Medicaid beneficiaries in Nebraska. To evaluate the reasonability of non-benefit expenses, we will review the major administrative requirements under each MCO contract and how those requirements have changed from prior rate periods. We will also request detailed reporting on administrative costs from MCOs as part of an MCO survey request.

MCOs that are for profit entities may be subject to a Health Insurance Providers Fee under Section 9010 of the ACA. Under Actuarial Standard of Practice (ASOP) No. 49, actuaries are required to reflect this fee in the capitation rates, and since it is non-deductible for corporate tax purposes, the rates must also reflect the tax impact of the fee. This tax may be reflected either retrospectively or prospectively, depending on the state's preference. Although prospective implementation may be simpler administratively, we will often recommend retrospective implementation in order to minimize the risk of overpayment.

Non-Benefit Expenses

Non-benefit expenses must be managed in a manner that illustrates prudent use of program dollars while providing reasonable allowance for MCOs to provide comprehensive care management for Medicaid beneficiaries in Nebraska.

Additionally, dating back to calendar year 2008, we have maintained a database of financial statements for Medicaid MCOs and have published annual reports analyzing and summarizing this data⁵. The data, representing 186 companies and \$166.6 billion in Medicaid revenue in 2017, provides benchmark information on administrative costs, underwriting margins, medical loss ratios, and risk-based capital levels for Medicaid MCOs, and will be used to evaluate the adequacy and reasonableness of current and projected capitation rates, along with underlying assumptions concerning non-benefit costs. We will also evaluate changes in the administrative requirements for MCOs, changes in MCO enrollment, and other factors that should inform assumptions for administrative costs.

Our Managed Care Research

The data, representing 186 companies and \$166.6 billion in Medicaid revenue in 2017, provides benchmark information on administrative costs, underwriting margins, medical loss ratios, and risk-based capital levels for Medicaid MCOs

In the process of establishing fair and appropriate rates for the managed care populations in Nebraska, we aim to support DHHS in its efforts to increase the efficiency of the Medicaid delivery system. Providing meaningful review and suggestions requires a blend of actuarial and clinical expertise that Milliman is well-positioned to provide. The firm has a proud history of actuaries and clinicians working together and has the expertise – and credibility with the health plans – to both identify issues and to assist DHHS in developing strategies to address them in a responsible and sustainable manner.

2. Interim Reporting and Other Deliverables for Rate Setting Functions



In keeping with our commitment to a customized approach and transparent capitation rate development analysis, we work with our state Medicaid agency clients to establish deliverables that demonstrate the achievement of project milestones in the capitation rate development. The graphic above provides a summary of these interim deliverables, which are aligned with the capitation rate development process, and occur alongside the frequent status meetings we have with the Department:

Interim Deliverable 1: Information Request to the Department

As the first deliverable in the capitation rate setting process, the information request sets the stage for the ongoing communication loop with us and the Department during the rate development process. This report can guide discussion and provides the opportunity for us to know of any big program changes early on in the process. Because of our continuous monitoring of managed care program and ongoing discussions with the state, this information request is generally limited to anticipated changes (e.g., eligibility/benefit carve-ins), and allows for a smooth transition from monitoring activities to capitation rate development activities.

⁵ <http://www.milliman.com/uploadedFiles/insight/2018/Medicaid-managed-care-financial-results-2017.pdf>

Interim Deliverable 2: Health Plan Survey

Similar to requesting information from the state, we request information from the health plans to help provide additional insight into the data sources we use for the analysis, and to aid in the overall capitation rate development process. Significant pieces of information requested in this survey include the health plan's estimate of claims completion, sub-capitated experience, missing claims, non-state plan services, and administrative costs.

We treat this information with the utmost confidentiality, as we understand that the health plans are providing proprietary information in many cases.

Interim Deliverable 3: Capitation Rate Methodology Report & Presentation

Within the capitation rate methodology report, we outline the capitation rate development process, which is consistent with the proposed development approach documented above. For a rate update analysis, the most recently certified capitation rates serve as the starting point for the analysis. Therefore, the focus of this report is the description of the adjustment factors anticipated to be applied during the process. To allow for ample review time, we generally provide this report first to the state (at least a week before it is ready for distribution to the MCOs) and schedule time to go over the main components.

If the Department is agreeable, we can deliver an in-person presentation to the health plans to cover the major items outlined in the methodology report. This presentation and accompanying report provide qualitative insight to the health plans on the techniques that will be utilized to develop the adjustments and assumptions supporting the final capitation rate.

Interim Deliverable 4: Draft Capitation Rate Report

The draft capitation rate report documents the full capitation rate development process, from base data to final capitation rates. Within the narrative section of the report, we quantify and describe the impact of every material adjustment at the capitation rate cell level. Additionally, quantitative exhibits are provided, where the impact of each adjustment is identified and quantified for every step of the rate development process.

The report structure follows the Medicaid Managed Care Consultation Guide. Finally, consistent with the timing of the base data and methodology report, we generally provide this report first to the state (at least a week before it is ready for distribution to the MCOs) and schedule time to review the results of the capitation rate development process.

Interim Deliverable 5: Draft Capitation Rate Presentation

After the draft capitation rate report is distributed to the MCOs, we typically deliver an in-person presentation to the health plans to walk through the full development of the capitation rate. We cover each major capitation rate adjustment and the material assumptions underlying the development of these adjustment factors. This presentation provides a forum for the health plans to ask questions during the discussion and also to provide any pertinent feedback on the rate development process.

Interim Deliverable 6: Responses to Health Plan Feedback

If the state is agreeable, the health plans are generally provided with an opportunity after the draft rate presentation to submit questions and/or comments in writing within a specified timeframe. We typically respond to these health plan questions in writing. During this time, we also finalize with the Department any key programmatic changes anticipated during the contract period.

The completion of this deliverable leads to the preparation of the final capitation rate certification report, which is discussed in the next section.

Our Base

The data, representing 186 companies and 166.6 billion in Medicaid revenue in 2017, provides benchmark information on administrative costs, underwriting margins, medical loss ratios, and risk-based capital levels for Medicaid MCOs.

3. Capitation Rate Finalization

The final deliverables represent the culmination of the rate setting process. These ultimate steps result in the final risk-adjusted rates and include all required documentation necessary for submission to CMS. If CMS requests further information during their review, we will provide clarifications or supplemental analyses to obtain approval as quickly as possible.



Capitation Rate Finalization Step 1: Final Rate Certification Report

To document the development of the base capitation rates for each rate cell, we follow the Medicaid Managed Care Consultation Guide published annually by CMS. Our adherence to the guide facilitates the CMS review and approval process, and our reports have been referred to as the gold standard within the industry. We will be actively engaged in the documentation and review process, through participating in calls and meetings as needed and preparation of further analysis, explanation, and recommendations, and we will respond to any questions in a timely manner.

As a result of offering a wide breadth of qualified consultants to serve the Department, personnel absences (such as employee vacations) will not cause delays in responding to the Department's needs.

The final certification report of the capitation rates for all managed care programs is the culmination of the capitation rate development process. It represents a documented assurance to the Department, the federal government, and MCO stakeholders that the capitation rate setting process fully follows federal guidelines, including the following assurances:

- The rates have been developed in accordance with generally accepted actuarial principles and practices.
- The capitation rates provide for all reasonable, appropriate, and attainable costs that are required under terms of the contract and for the operation of the MCO for the time period and population covered under the terms of the contract.
- The rate development reflects compliance with all laws, regulation, and other guidance for the Medicaid program, including but not limited to eligibility, benefits, financing, any applicable waiver or demonstration requirements, and program integrity.
- The final capitation rates must be reasonable, and the documentation must be sufficient to demonstrate that the rates comply with applicable law.

Our adherence to the guide facilitates the CMS review and approval process, and our reports have been referred to as the gold standard within the industry.

From our experience in certifying Medicaid capitation rates in several other states, we are aware of the increasing scrutiny CMS has placed in reviewing submitted actuarial rate certifications. CMS produces an annual Medicaid Managed Care Rate Development Guide, which outlines the information it expects to receive in an actuarial certification report. The following tables summarize the components of the rate setting process on which CMS has placed increased scrutiny in the rate setting guide and other regulations, and the methodologies we will employ to ensure that our rate setting process for DHHS' managed care programs continue to be fully compliant with regulatory standards.

RATE SETTING COMPONENT: DATA

CMS REQUIREMENT

Types of data used;
Document any concerns the actuary had with the data;
Describe any changes in the source base data from the prior rate setting period

MILLIMAN METHODOLOGIES

We have a pre-defined evaluation process to review capitation rate setting data for incompleteness or omissions. This process, along with any data issues that are encountered during the rate setting process, will be documented in our certification letters, along with being verbally communicated to CMS, MCOs, and DHHS personnel.

RATE SETTING COMPONENT: PROJECTED BENEFIT COSTS

CMS REQUIREMENT

Changes in covered benefits, including impact to rates

Trend assumptions by service category, with breakdowns by utilization and unit price

Managed care adjustments

MILLIMAN METHODOLOGIES

To the extent a benefit change is made, we will develop estimates of the estimated cost impact at the service category and rate cell level. Such adjustments will be documented in our rate certification letter.

Trend rates for projected benefit costs will be developed by service category and rate cell, and will be split between utilization and service cost trend. Our documentation of trend rate development will disclose data sources, base time periods, and actuarial projection techniques.

Managed care adjustments will be developed using our suite of managed care efficiency tools. Our methodology utilizes an objective approach to identify potential areas for efficiency and our managed care adjustments reflect the expectation for the MCOs to reasonably achieve the targets in alignment with the Department's goals for the managed care program. These adjustments are documented in our rate certification letters and associated data books.

RATE SETTING COMPONENT: NON-BENEFIT COSTS

CMS REQUIREMENT

Description of administrative and care management costs, as well as provisions for cost of capital, risk and contingency margin, underwriting margin, profit margin

Taxes, fees and assessments

MILLIMAN METHODOLOGIES

Dating back to calendar year 2008, we have maintained a database of financial statements for Medicaid MCOs. This data, representing 186 companies and \$166.6 billion in Medicaid revenue in 2017 provides benchmark information on administrative costs, underwriting margins, medical loss ratios, and risk-based capital levels for Medicaid MCOs, and will be used to evaluate the adequacy and reasonableness of current and projected capitation rates, along with underlying assumptions concerning non-benefit costs. We will also evaluate changes in the administrative requirements for MCOs, changes in MCO enrollment, and other factors that should inform assumptions for administrative costs.

Any taxes, fees, or assessments included in the rates will be documented in a clear and transparent manner. In particular, the ACA's health insurer fee will be incorporated into the capitation rates as appropriate, as the aggregate national fee amount and an insurer's share of the aggregate fee will change on an annual basis. Additionally, as Medicaid health plans have entered the commercial market through the public insurance exchanges, they may become newly subject to the fee if their commercial premium revenue represents more than 20% of their total premium revenue.

RATE SETTING COMPONENT: RISK AND CONTRACTUAL PROVISIONS**CMS REQUIREMENT****MILLIMAN METHODOLOGIES**

Risk adjustment processes	The risk adjustment process will be fully exposed in rate setting certification letters, including the process employed to ensure no data quality issues existed prior to implementing risk adjustment.
Risk mitigation programs	Risk mitigation programs including risk corridors, minimum medical loss ratios, or reinsurance programs will be documented, along with a rationale for why these programs are necessary to limit volatility in MCO expenditures or ensure DHHS purchasing-value.
Incentive or withhold amounts	A description of any incentive or withhold amounts will be included in the certification letter. In the course of the development of any incentive payments to the MCOs, we will work with DHHS to ensure that such incentive payments do not exceed 5% of total MCO revenue to ensure actuarial soundness as required by federal regulations.

RATE SETTING COMPONENT: MEDICAID EXPANSION POPULATIONS (IF APPLICABLE)**CMS REQUIREMENT****MILLIMAN METHODOLOGIES**

Adjustments for acuity, pent-up demand, and adverse selection;	We have developed Medicaid expansion rates in several states. The development of these rates was particularly challenging initially, as there were many unknowns concerning enrollment rates and morbidity levels of the eligible population. It is also likely that the utilization and cost patterns of the Medicaid expansion population will be changing as the program matures. We will perform a detailed evaluation of assumptions used in prior rate setting periods to determine if specific assumptions should be modified or removed from the rate setting process. Financial results for each participating MCO will also be evaluated to ensure underwriting and administrative costs are reasonable in relation to industry norms.
Identify and changes in data sources;	
Describe any risk mitigation strategies	

**Capitation Rate Finalization Step 2: Risk Adjustment**

To complete the calculated capitation rate for each contracted MCO, a detailed risk adjustment methodology is applied to the Department's managed care program. Health risk adjustment is an important mechanism utilized in the support of a sustainable Medicaid managed care program for participating MCOs. The focus of the health plan risk assessment process is to allow plans to compete on delivery of care and efficient management of patient needs as opposed to limiting exposure to higher-risk individuals. This process allows for the measurement of relative morbidity for individuals within a certain population.

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Capitation Rate Finalization Step 3: Responses to CMS Questions

After the documentation of capitation rates and risk adjustment are submitted to the Department for distribution to CMS and the MCOs, we continue to provide support to the Department in preparing responses to any applicable questions that CMS may ask during their review of the certified capitation rates and accompanying documentation. As a testament to our transparency and thoughtful consideration of each assumption during the capitation rate development analysis, the CMS review process contains only a handful of questions in many cases and rarely continues into a second round of questions.

Technical Considerations

Throughout the process of developing actuarially sound capitation rates, there are several technical considerations that need to be made. The following provides a list of items that Milliman will consider in developing capitation rates for DHHS:

Rate Data Analysis and Manipulation

- Payment rates should be sufficiently differentiated into actuarial cost models to reflect known variation in per capita costs related to age, gender, Medicaid eligibility category, and health status;
- Appropriate levels of managed care plan administrative costs should be included in the rates, with consideration of Nebraska state laws regarding limitations.
- Consider constraints of local delivery system and MCO policies in establishing managed care efficiency targets.
- Methodology changes in the withhold arrangement should be evaluated to assess the amount of the withhold that is reasonably achievable in the context of the capitation rate development.
- Programmatic changes in the Medicaid program between the data and contract periods should be reflected in the rates.

Interim Reporting and Other Deliverables for Rate Setting Functions

- Effective data visualizations through charts, exhibits, and tables should be utilized in presenting capitation rate development methodologies and results.
- It is often helpful to provide MCOs with certain components early in the process, for example base period data summaries (data book), proposed adjustments, assumptions, and planned treatment of policy and program changes. This supports transparency, allows MCOs to voice any concerns earlier in the process, and avoids last minute surprises and delays.
- Providing fiscal impact estimates for proposed program and policy changes early in the process can assist with acquiring the necessary approvals to finalize policy decisions.

- In internal discussions with the State, we will disclose assumptions that have material opportunity for variation around a best estimate (most commonly trend assumptions or managed care efficiency assumptions) and provide an estimate of the sensitivity of the rates to these assumptions. This is information that previously would have been provided as a rate range.
- Frequent touchpoint meetings with DHHS should be established to discuss current rate development analytics and anticipated program changes for the capitation rate contract year.

Capitation Rate Finalization

- Documentation should follow the instructions and layout of the CMS Medicaid Managed Care Rate Development Guide.
- Discussion material should include a comparison to prior year rates to allow evaluation of the adequacy of the rates in relation to the MCOs prior year financial performance.
- To facilitate an understanding of the rate development process, we typically illustrate reconciliation of the base period data to the final rates, including each material adjustment that was made and the impact of that adjustment on the capitation rates.
- Thorough and thoughtful data analysis should be completed to consider the most appropriate version of risk adjustment to be used in developing the risk adjusted rates. Data validation results at the service category level help determine the appropriateness of using medical classifications only (CDPS), pharmacy models (Medicaid Rx), or a combination of both (CDPS + Rx);
- For programs with benefit carve-outs, such as behavioral health or pharmacy services, specific CDPS weight options should be used to most appropriately reflect the risk associated with the managed care program.
- Presentation material for MCO meetings should provide detailed descriptions of all actuarial assumptions and rate development methodologies to facilitate transparency in the rate development process.
- To the extent applicable, performance withholds should be structured in a manner that incentivizes health plan performance in alignment with program goals. We typically assist our state clients in developing achievable goals for the health plans based on historical program data.

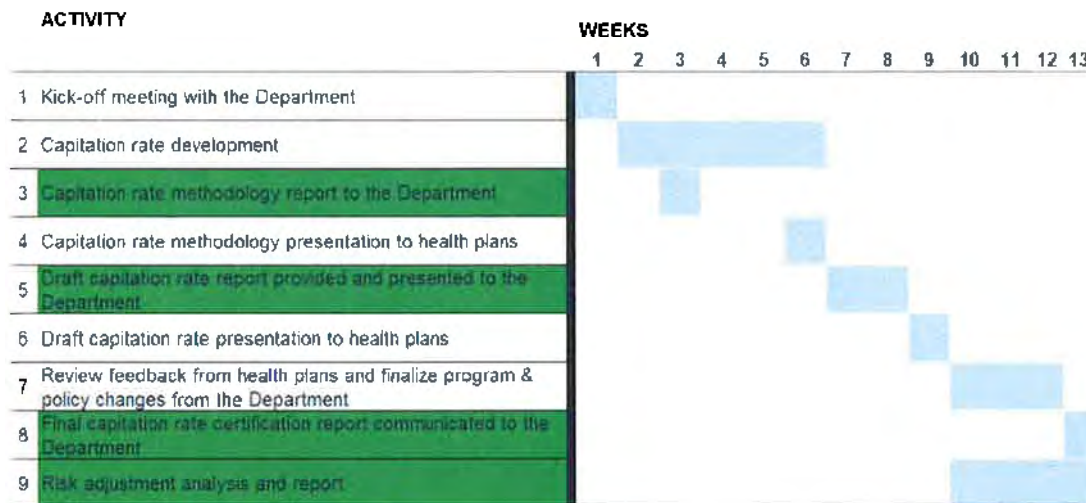
Detailed Project Work Plan

We have found it is ideal to provide approximately 13 weeks for the annual capitation rate setting process. Our typical timeline is outlined below. When finalizing the actual timeline with the Department, we will do so in a manner such that the final rates are submitted 150 days or 5 months in advance of the effective date. Items highlighted in green shading represent deliverables to the Department. Also, we have found it ideal to set up bi-weekly or weekly check-in and status calls with our state Medicaid agency clients to keep them informed of every step of the process.

Heritage Health Program

Capitation Rate Setting - Project Work Plan

Plan Duration



Step 1: Kick-off meeting with the Department (Week 1)

Milliman will meet with the Department to initiate the project and discuss the information request that we will provide ahead of the meeting. We will discuss expectations for project outcomes and establish guidelines for the workflow process and timeline. Milliman will provide the Department with discussion items pertaining to current laws and regulations and how those may impact the rates to be paid to managed care entities. We will also provide information regarding future regulation changes and the applicability of those changes in relation to the programs covered by the Department.

This meeting is also an opportunity for the Department and Milliman to take a step back from operations to consider strategic modifications to the reimbursement structure. The discussion may include adjustments to methodology, covered populations, integration or carve-out of services, restructuring of populations or services, modification of incentives, risk adjustment, or any other structural changes to enhance value.

After the discussion has led to agreement on the scope for the capitation rate setting project, responsibilities will be clarified and the timeline may be adjusted. To the extent that no major changes are envisioned, the timeline may be condensed.

However, when major changes are contemplated, it may be appropriate to allow additional time to inform the MCOs and allow for feedback.

Milliman anticipates that most elements of the project will be defined up-front when possible, with interim deliverables and timeframes agreed upon in advance. However, sometimes a change is needed midstream. In these instances, Milliman will work collaboratively with the Department to adjust the processes or direction.

Immediately following the kick-off meeting with Milliman, the Department may wish to have an informational meeting with the MCOs to discuss any changes to the reimbursement structure or methodology. Milliman will be available to support, as desired by the Department.

Step 2: Capitation rate development (Weeks 2-6)

As soon as the capitation rate setting project has been defined, we begin work on the rate development and application of adjustments. These often trend, anticipated program changes, MCO contracting adjustments, and adjustments to reflect anticipated levels of healthcare management. We will develop a range of managed care adjustments (from high to low) for purposes of the capitation rate calculations.

Program and policy changes are generally the focus of a capitation rate update exercise. Future program changes may be anticipated due to normal changes in the Medicaid environment as well as external mandates, such as the Affordable Care Act. We will make appropriate adjustments to reflect cost estimates for enacted changes. Examples of program changes that could potentially impact the Department over the course of this contract include population expansion, fee schedule changes, administrative cost changes, pharmacy rebates, and additional covered services.

We will also analyze historical utilization and cost per service trends in the base period data and more current available data provided by the Department. This will be compared with observed trend rates in other states' Medicaid managed care programs. Other benchmarks may also be referenced, such as general medical inflation and other economic trends, as appropriate.

The final capitation rates will be developed by adjusting per member per month costs to reflect administration, profit, and contingency margins. To determine appropriate margins, we will examine MCO financial statements and compare these to financial statements from other Medicaid managed care organizations. To facilitate this process, Milliman's Indianapolis office develops an annual report that summarizes metrics from the annual statements of the nearly 200 MCOs who report \$10 million or more in annual Medicaid revenue for physical health. These metrics include values such as the Medical Loss Ratio, Administrative Loss Ratio, and Underwriting Ratio. A copy of the 2017 report is included in Appendix 7.

Step 3: Capitation rate methodology report to the Department (Week 3)

This report documents the main steps of the capitation rate development process. We deliver this report to the Department at least a week before distribution to the health plans to allow ample time for Department review and for us to walk through the report with the Department. Upon receiving the Department's approval, we will prepare the capitation rate methodology presentation for in-person delivery to the health plans anticipated during Week 6.

Step 4: Capitation rate methodology presentation to health plans (Week 6)

We anticipate delivering an in-person presentation to the health plans to walk through the full development of the capitation rate. We will address and describe each major capitation rate adjustment and the key assumptions underlying the development of these adjustment factors. We believe that this meeting continues to support transparency in the process and provides a forum for the health plans to ask questions during the discussion. Finally, if the Department is agreeable, the health plans may submit additional questions in writing related to the rate development, for the Department's and Milliman's consideration.

Step 5: Draft capitation rate report provided and presented to the Department (Weeks 7-8)

Milliman will develop a draft report to be shared with the Department in advance of the final rate certification letter for submission to CMS. The draft report will provide full documentation of the rate development. This will include appendices illustrating actuarial cost models for each rate cell, and trend and other adjustments applied to the base data for each rate cell. The body of the document will discuss the data, assumptions, and methodology used to develop each adjustment to the rates. Milliman will provide the draft report in a format consistent with the final certification documentation that will be submitted to CMS. Following an appropriate timeframe for review by the Department, Milliman will solicit feedback on the proposed rates. Milliman will edit the draft report and rate calculations as appropriate.

Step 6: Draft capitation rate presentation to health plans (Week 9)

Milliman will prepare a presentation to present the draft capitation rates to the MCOs. The Department will review the presentation and arrange for the meeting, while Milliman will take the lead in delivering the draft capitation rate results and explaining the main underlying assumptions.

Step 7: Review feedback from health plans and finalize program & policy changes from the Department (Weeks 10-12)

Milliman will assist the Department in responding to MCO questions, including any written questions that may be submitted after the meeting. Should the Department and Milliman wish to make any additional adjustments to the rates based on MCO feedback, Milliman will reflect those revisions in the final report.

Step 8: Final capitation rate certification report communicated to the Department (Weeks 13+)

The final report, including actuarial certification for submission to CMS, will be delivered to the Department in Week 13. Prior to release of the final report, internal Milliman peer review will be performed by an experienced managed care actuarial consultant who was not involved in the capitation rate setting process. This provides one last check to ensure the documented actuarially sound capitation rates fully meet all statutory and regulatory requirements, as well as all actuarial standards of practice.

Milliman's commitment to the project does not end with the final actuarial report. We are dedicated to providing the Department with any assistance that may facilitate receiving approval from all parties and implementing the rates. For example, Milliman is available to respond to questions or assist in follow-up discussions with CMS or the MCOs. Milliman often assists states with aspects of contracting that are related to the rates, such as development of contract not to exceed values or reviewing contract language to ensure it is consistent with the development of the rates. We are also available to assist the Department staff or the fiscal agent with implementation of the rates, or in any other capacity that the Department may request. For example, the fiscal agent needs to know the new rates to enter into the payment system, but may not be interested in the actuarially sound capitation rates. To minimize the chance of payment error, Milliman could provide the fiscal agent with a special packet including exhibits illustrating the actual new rates payable to each entity, less any performance withholds.

Step 9: Risk adjustment analysis and report (Weeks 10-13)

Milliman will develop initial risk scores and share draft risk adjustment results with the Department. The draft report will include MCO case mix and prevalence information as described in the Proposed Development Approach section. Similar to the draft capitation rate certification letter, this documentation will be fully transparent and in the format consistent with the final certification that will be submitted to CMS. The final risk adjustment report will be delivered to the Department and presented for final state approval before submission to CMS.

As with the final actuarial certification described in Step 8, Milliman will continue to provide any additional services necessary to obtain stakeholder approval of the risk adjustment results.

Staffing

In recognition of the broad array of services requested in this RFP, we have prepared a team of consultants and analysts that have a broad array of experience across Medicaid managed care programs and the healthcare industry. The organizational structure outlined below shows the primary staff that will be dedicated to providing actuarial and consulting services to the Department. The breadth and depth of the expertise of these individuals underscores our commitment to providing the highest quality actuarial and consulting services to the State of Nebraska. **While the services performed under this RFP will be performed by the staff in the Indianapolis office, we have countless resources available to access the intellectual capital generated by our global firm.**

Primary Consulting Actuary

- Robert M. Damler, FSA, MAAA – Principal and Consulting Actuary.

Project Managers

- Marlene T. Howard, FSA, MAAA – Principal and Consulting Actuary; and
- Jeremy A. Cunningham, FSA, MAAA – Consulting Actuary.

Actuarial Support

- Colin R. Gray, FSA, MAAA – Actuary; and
- Jaime M. Fedeler – Actuarial Healthcare Data Analyst.

Data & Technical Support Analysts

- Matthew J. Brunsman – Healthcare Data Analyst; and
- Oksana V. Owens – Healthcare Data Analyst.

Resumes for each of the proposed team members are included in Appendix 6.

Deliverables and Due Dates

Milliman is committed to providing the highest quality actuarial consulting services in a timely and professional manner. We will assist the Department in meeting all of its commitments and believe Milliman is the best vendor to provide the Department with actuarial and consulting services related to the development of Medicaid managed care capitation rates in the State of Nebraska.

We are committed to following the tentative timeline for Calendar Year 2020 capitation rate setting and risk adjustment as outlined in the project plan described above. In addition to completion of stated tasks, Milliman believes in establishing timelines to permit the Department an opportunity to review major deliverables and provide valuable feedback into the process. Sufficient time will be allotted to implement requested revisions/changes based on the Department's review of the deliverables. With the Department's expectation that final rates be submitted 150 days or 5 months in advance of the effective date, we anticipate that the Calendar Year 2020 capitation rate development analysis will commence in mid- to late-April 2019 and be complete with the delivery of the final rate certification report by the beginning of August 2019.

SOW 2 – Capitation Rate Rebasing:

The SOW is to secure Actuarial and Consulting Services to rebase full risk capitation rates for the Medicaid Managed Care program. The rebasing process includes analysis of updated data and adjustments to trends. The rebasing activity will occur at least once annually.

Activities related to capitation rate rebasing include but are not limited to:

- a. Analyze different types of rate methodologies and models used by governmental and commercial entities upon request;
- b. Analyze paid claims (both fee-for-service and managed care, managed care financial statement data, and managed care encounter data with a specific focus on developing a rate range of high/target/low full risk capitation rates;
- c. Analyze rate cell alternatives for identification of various groupings for the population (e.g. age, gender, eligibility);
- d. Assess compliance of rate methodologies and applications with Federal and State laws, rules, and regulations regarding reimbursement and budget-related issues;
- e. Provide documentation and training for Department staff on new capitation rate-setting methodologies and procedures. Documentation and training shall be easily understood, allowing the Department to implement and manage the execution of new capitation rate-setting methodologies;
- f. Provide an actuarial certification as to the soundness of the rates the contractor develops; and
- g. Prepare all presentation material, and attend and participate in with MCO meetings as requested to promote approved recommendation.

1. Policy and Financial Management Consulting Services

- a. Work collaboratively with the Department in the exploration of various Value Based Payment (VBP) models for the Department's Medicaid program as an alternative to the current reimbursement structure. Models include the use of Managed Care Organizations (MCOs), Accountable Care Organizations (ACOs), and Independent Practice Associations (IPAs) to incorporate shared savings, bundled payment mechanisms based on an episode of care rather than an individual visit, and other total cost of care models
- b. As part of this transformation, the Department anticipates major policy changes over the next several years with the implementation of federal and state health care payment care reform. The contractor will be required to establish and staff a VBP team to analyze federal and state policies and provide technical support and analysis in the transformation of the Department's Medicaid reimbursement system. The contractor will assist in quantifying the impact of proposed policy and legislative changes on existing capitation premiums; those changes that can affect the total number of eligible consumers, the underlying risk of the capitated population, or the Medicaid benefits package, which may increase or decrease the average capitation premium.
- c. The VBP team will also be tasked in assisting the Department with the development and continued maintenance of bundled payments and total cost of care benchmarks.
- d. Provide technical assistance in evaluating management agreements, contracts between related parties, and cost sharing and cost allocation methods as they impact Managed Care plans
- e. Assist in refinement of existing financial monitoring tools, on-site monitoring, and plan engagement techniques which include, but is not limited to plan encounter validation reports plan encounter data comparison reports
- f. Develop dashboard reporting with benchmark comparisons by category of service for the Managed Care programs
- g. Analyze the accuracy of MCO premiums based on overall MCO financial performance, retrospectively
- h. Provide on-site plan audit reviews as necessary including but not limited to financial, clinical and operational assessment
- i. Track and analyze financial impacts of populations transitioning from service based payments programs to Managed Care

- j. *Develop annual financial comparison report based on cost report data and financial performance report data comparing all MCOs with each other and with a contractor developed average of all MCOs. The contractor should at a minimum analyze financial and medical management efficiency; MCO medical loss ratio; profitability and financial solvency; net worth per member. Ultimately this analysis will be used to assist the Department with the implementation of a profit cap requirement.*

A Note on the Response Structure

Section V.C of the RFP indicates that the information that should be provided for each proposed service. Additionally, Section VI.A.3 outlines the required structure for the Technical Proposal. Therefore, we have structured our response as follows, to address the requested information:

VI.A.3.a Understanding of the Project Requirements

- Prior experience performing this service for other states or companies of similar size and Medicaid Managed Care enrollment numbers to the State of Nebraska (Section V.C.c);
- Successes achieved, in regards to prior experiences listed above (Section V.C.d);
- Description of challenges present with rate-setting and how bidder addresses each challenge (Section V.C.e);
- Number of years performing the service (Section V.C.f);
- All analysis, findings and/or recommendations are to be in line with current statutory/actuary as it applies to each SOW (Section V.C.j).

VI.A.3.b Proposed Development Approach

- Methodology for performing the service (Section V.C.b)

VI.A.3.c Technical Considerations

- Any requirements to be provided by the Department (Section V.C.g)

VI.A.3.d Detailed Project Work Plan

- Process, staffing and timeframe (Section V.C.a);
- An estimated timeline for completion of services (Section V.C.h)

VI.A.3.e Deliverables and due dates

Additionally, we have identified three main components of SOW 2 and have accordingly addressed each of these items in depth in the following order:

1. Capitation Rate Rebased
 - Items a. through g. prior to numbered item 1. in the question (italic text) above
2. Policy and Financial Management Services – Value-Based Payments
 - Items a. through c. under numbered item 1. in the question (italic text) above
3. Policy and Financial Management Services –Managed Care Program Oversight
 - Items d. through j. under numbered item 1. in the question (italic text) above.

1. Capitation Rate Rebasing

Understanding of the Project Requirements

Rebasing of capitation rates relates to capitation rate development for a new contract period with more recent experience as the base data source. As with capitation rate setting, Milliman will act as DHHS's trusted advisor. By leveraging our vast wealth of experience in the Medicaid industry, we will quickly build a strong understanding of the Heritage Health program, its structure, benefits offered, and populations served. It is also important to understand the history of the Heritage Health program, perceptions of the program held by various stakeholders, and components of the program that DHHS would like to address or investigate.

By leveraging our vast wealth of experience in the Medicaid industry, we will quickly build a strong understanding of the Heritage Health program, its structure, benefits offered, and populations served.

The capitation rate rebasing would at a minimum include a full update of the base period data used to develop the actuarially sound rates. In addition, the rebasing could address changes to the rate structure, such as populations covered, the manner in which the rate cells are defined, which benefits are carved out, the manner in which benefits are delivered, the incentive structure, assumptions, data used to develop assumptions, methodology, or any changes that DHHS or Milliman may bring up for consideration.

Rebasing is generally performed at the beginning of the contract period and then updated annually to provide a full update of the base data used to set the rates. Even when a significant change to the reimbursement structure is not desired, frequent rebasing is the best way to keep the capitation rates "marked to market" and limits the more radical changes that may occur with less frequent updates.

Our experience for this SOW is consistent with SOW 1 – Capitation Rate Setting. **The Milliman Medicaid Consulting Group has been developing capitation rates for over 20 years on behalf of more than 20 state Medicaid agencies.** Over this experience period, we have relied on our principles of transparency, innovation, attention to detail, and customized approach to deliver an unparalleled level of service to our state Medicaid clients.

Key Successes and Challenges

A key component to capitation rate rebasing is the ability to process large amounts of data in an effective and efficient manner. Milliman is well equipped to receive, load, and analyze all data provided by the Department. The following section contains a summary of client work consistent with the capitation rate rebasing activities outlined under SOW 2.

Success: Electronic Data Files

Milliman routinely receives and accepts large data sets from client servers to our Indianapolis office, including Medicaid eligibility, Medicaid fee-for-service, and Medicaid managed care encounter data. Milliman also maintains Commercial, Medicare, and Medicaid databases along with internal analytic tools that allow our consultants to efficiently obtain information for a representative sample of the national scope of healthcare benefits. Public sources of information include the Medicaid Statistical Information System (MSIS) databases and the Medicare 5% sample data, both of which allow for a comprehensive understanding of expenditure and eligibility information for other state and national programs. Examples of the large storage capacity that Milliman's Indianapolis office currently maintain include:

- Illinois Medicaid: 3.1 million current lives, enrollment and claims data for various time periods;

- Indiana Medicaid: 1.5 million lives, enrollment and claims data from 1998 through current;
- Michigan Medicaid: 2.2 million lives, enrollment and claims data from 1999 through current;
- Ohio Medicaid: 2.9 million lives, enrollment and claims data from 2015 through current;
- South Carolina Medicaid: 1.2 million lives, enrollment and claims data from 2009 through current; and
- Pharmaceutical Manufacturer: 400 GB of national drug code (NDC) detail prescription data.

Milliman has experience in assisting states with the development of an encounter data monitoring report to reconcile submitted encounter data with actual experience of managed care plans. Generally, Milliman designs an Encounter Quality Initiative (EQI) report customized to each state Medicaid client that compares plan membership, utilization per thousand, and per member per month metrics by service category for summarized encounters and plan reported financial summaries. These data comparison reports can be tied to financial incentive measures for the plans, with the goal of promoting complete and accurate encounter data which can be used for rate setting and other purposes.

Success: Data Validation

For the State of Ohio, Department of Medicaid (ODM), we have been receiving monthly encounter data extracts (containing more than two million lives) since our contract inception in 2015. We facilitate several steps and processes to ensure that the data is complete and conforms to values in the State's data warehouse. For each file we receive that contains records for claims, recipients, or other data, the file typically comes with one additional record that has control values for fields or metrics within the file. These control values indicate record counts or sum-totals for all records for each numeric field in the file at hand. For example, an institutional claims file we receive will come with a control value indicating the total header paid dollar amounts on all claim lines within the file. Our main validation step is to summarize the numeric fields for all records in the file to ensure that we are arriving at the same answers as the values present on the "control values" record accompanying the file. If we do not reconcile to the exact control values, we follow-up with ODM in order to isolate differences.

Additionally, because we receive data extract files on a monthly basis, we compare newly received files to the files we received in prior months. In the event a newly received file is significantly different from previously received files in terms of total records, utilization counts, dollar fields, or other numeric fields, we follow-up with ODM to discuss the issue. At this point, we also check to make sure the data we receive from ODM does not exactly match the data we received in a prior month to confirm we have not received duplicate data.

This data validation process is the first step in ensuring that MCO encounter data is adequate for use in rate development. While there are many additional steps in evaluating the completeness of encounter data, data validation assures ODM and MCO stakeholders that encounter data used in the rate setting process accurately reflects historical MCO expenses.

Success: Transition from Fee-for-Service to Encounter Data Analysis

Milliman has worked with the State of Michigan, Department of Community Health since 1997 to perform risk-based capitation rate setting for all of the managed care programs operating in the state. These programs include both non-disabled and disabled populations. We have worked extensively with expanding the presence of Medicaid managed care within the state through transition of previously fee-for-service populations and Medicaid expansion. We have assisted the state with analyzing managed care encounter data relative to historical fee-for-service experience, along with quantifying the impact that differences in base data have on the rebasing component of rate setting activities.

Success: Rebasing for Managed Long Term Care (MLTC) Programs

Milliman has worked with the State of Ohio, Department of Medicaid since 2015 to perform capitation rate setting and associated analyses for all populations covered under a risk-based Medicaid managed care program in the state. This includes Ohio's Medicaid Managed Care (MMC) program and the MyCare Ohio (MyCare) program.

MyCare is Ohio's dual demonstration program that includes long-term care (LTC) services. We have assisted Ohio in rebasing its capitation rates for both the MMC and MyCare programs, and have extensive experience in working with the unique data challenges associated with both the dual demonstration program and LTC services.

Challenge: New managed care programs

Milliman has performed consulting services since 1999 for the State of Illinois, Department of Healthcare and Family services. Our actuarial team performs capitation rate setting for all managed care programs in the state. We have supported Illinois through the expansion of its managed care program to cover additional populations and move to mandatory enrollment on a statewide basis. In the early years of managed care, capitation rate rebasing often has a material impact on rate setting as the program matures. This period following transition may reflect observed year-over-year fluctuations in experience as the population and health plans become accustomed to a managed care delivery system. We work with the state throughout the year to monitor emerging experience relative to capitation rate assumptions to keep the state informed of potential rebasing impacts anticipated for the next capitation rate setting analysis.

Challenge: Resolving Encounter Data Issues

By examining the consistency of encounter reporting on a monthly basis between providers and regions and across populations, we can identify encounter data issues in a systematic fashion. We will use the following process to address encounter data issues.

- Define data issue: We will draft communication to be shared first with the Department and then the specific MCO identifying the observed encounter data issue. The communication will document the services, populations, regions, and the time period impacted by the issue.
- Confirmation from MCO of data issue: We will seek confirmation of the data issue from the respective MCO. To the extent the MCO does not observe the same data issue, this may be an indication of encounter data transfer issue between the Department and the MCO.
- Request revised or re-submitted encounter data: After the MCO has acknowledged the identified encounter data issue, we will request the MCO to resubmit corrected encounter data to the Department if possible.
- Mitigation strategy: For many instances where there are known encounter data issues, it may not be possible for the MCO to correct the issue by resubmitting data. Therefore, it will be necessary to seek alternative data sources from the MCO to allow us to appropriately adjust the encounter data for usage in the capitation rate development process. Alternative data sources may include financial reports, provider invoices, and other pieces of financial information.
- Documentation in rate certification: Consistent with standards in the CMS Medicaid Managed Care Rate Development Guide, we will document all material adjustments made to the MCO encounter data in our rate certification.

As an example, our encounter data quality review for South Carolina Medicaid managed care program uncovered a reporting issue in the monthly data files related to third party liability (TPL) claims. A detailed claim review by category of service and comparisons across health plans helped identify the issue. Through communication and collaboration with the state and the impacted health plans, we created a process to adjust (and validate) the historical data and develop a solution for future encounter data submissions.

As evident in the final Medicaid managed care rule, CMS has raised its standard for the reporting of quality encounter data by states, including withholding federal Medicaid funding if a state fails to correct data issues. As demonstrated in our white paper on the encounter data standards⁶, we are prepared to help the Department and MCOs improve encounter data quality.

⁶ <http://us.milliman.com/insight/2016/Encounter-data-standards-Implications-for-state-Medicaid-agencies-and-managed-care-entities-from-final-Medicaid-managed-care-rule/>

Regulations and Actuarial Standards of Practice

Milliman will provide technical and professional advice to ensure any proposed change during the capitation rate rebasing process fully complies with 42 CFR 438.4(a), the most recent *Medicaid Managed Care Rate Development Guide* published by CMS, and all professional actuarial standards of practice. Milliman works hard to stay up to date on the many regulations issued by regulatory bodies. A deep knowledge of the rules and regulations allows us to best advise the state on how to maximize value under those rules.

When developing capitation rates, the main guiding principle for the analysis is to ensure that the certified rates are "actuarially sound" for purposes of 42 CFR 438.4(a), according to the following criteria:

- The capitation rates will provide for all reasonable, appropriate, and attainable costs that are required under terms of the contract and for the operation of the managed care plan for the time period and population covered under the terms of the contract, and such capitation rates will be developed in accordance with the requirements under 42 CFR 438.4(b).

Milliman will provide technical and professional advice to ensure any proposed change during the capitation rate rebasing process fully complies with 42 CFR 438.4(a), the most recent *Medicaid Managed Care Rate Development Guide* published by CMS, and all professional actuarial standards of practice

Specifically related to data, we further reference Actuarial Standard of Practice (ASOP) 23 (Data Quality), which outlines the responsibilities for an actuary to undertake when using data for any analysis. While we are not required to audit the data provided, we are held to the responsibility of reviewing the data for reasonableness. We spend a considerable amount of time during the data validation step of the capitation rate rebasing, because the base data is the foundation for the entire analysis.

Finally, CMS has focused on the age and sources of base data in the Medicaid managed care regulation (42 CFR §438). In §438.5, section (c) is entirely devoted to base data guidance. The main directives are as follows⁷:

- The base data must be representative of the population to be served under the managed care contract;
- The states must provide all such data for the "three most recent and complete years prior to the rating period"; and,
- The base data must be sourced from one of these three most recent and complete years.

To be compliant with the federal regulation and given our commitment to best in class service and quality, we frequently interact with the state and, by association, the MCOs, to ensure that the data rebasing activity produces the best available base data before we move on to the next phases of the capitation rate development analysis.

⁷ <https://www.gpo.gov/fdsys/pkg/FR-2016-05-06/pdf/2016-09581.pdf>. Section 438.5, page 27859.

Proposed Development Approach

Capitation rate rebasing contains five key components, which can be summarized under the following process.



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[REDACTED]

[REDACTED]

[REDACTED]

■ <http://us.milliman.com/insight/2016/Encounter-data-standards-Implications-for-state-Medicaid-agencies-and-managed-care-entities-from-final-Medicaid-managed-care-rule/>



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[REDACTED]

[REDACTED]

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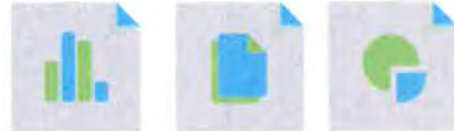
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MORE THAN

\$10

MILLION DOLLARS
SPENT ON RESEARCH



Pharmacy Trend Considerations

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during the projection period. This allows us to evaluate emerging experience by population and
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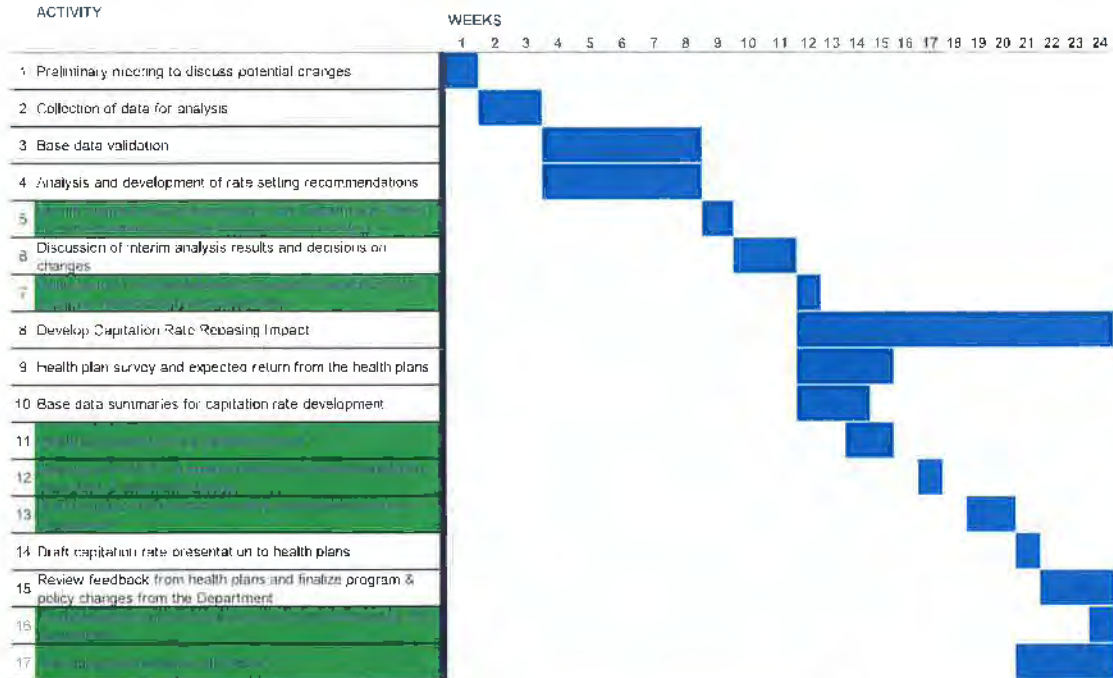
Detailed Project Work Plan

Our typical capitation rate rebasing timeline is outlined below. Items highlighted in green shading represent deliverables to the Department. Also, we have found it ideal to set up bi-weekly or weekly check-in and status calls with our state Medicaid agency clients to keep them informed of every step of the process.

Heritage Health Program

Capitation Rate Rebasing - Project Work Plan

Plan Duration



[REDACTED]

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Staffing

In recognition of the broad array of services requested in this RFP, we have prepared a team of consultants and analysts that have a broad array of experience across Medicaid managed care programs and the healthcare industry. The organizational structure outlined below shows the primary staff that will be dedicated to providing actuarial and consulting services to the Department. The breadth and depth of the expertise of these individuals underscores our commitment to providing the highest quality actuarial and consulting services to the State of Nebraska.

While the services performed under this RFP will be performed by the staff in the Indianapolis office, we have countless resources available to access the intellectual capital generated by our global firm.

Primary Consulting Actuary

- Robert M. Damler, FSA, MAAA – Principal and Consulting Actuary.

Project Managers

- Marlene T. Howard, FSA, MAAA – Principal and Consulting Actuary; and
- Jeremy A. Cunningham, FSA, MAAA – Consulting Actuary.

Actuarial Support

- Colin R. Gray, FSA, MAAA – Actuary; and
- Jaime M. Fedeler – Actuarial Healthcare Data Analyst.

Data & Technical Support Analysts

- Matthew J. Brunsman – Healthcare Data Analyst; and
- Oksana V. Owens – Healthcare Data Analyst.

Resumes for each of the proposed team members are included in Appendix 6.

Deliverables and Due Dates

Based on the project work plan outlined above, the intended deliverables for this project would include interim results, data summaries, a draft report, and a finalized rate certification. These items would be delivered over the course of the project timeline as identified above.

The final report will provide a detailed description of our methodology used for developing the capitation rates and provide an actuarial certification as to the soundness of the rates we develop. Additionally, we will prepare presentation material, attend and participate in meetings with managed care organizations as requested to assist with promoting the approved recommendations.

2. Policy and Financial Management Services – Value-Based Payments

Understanding of the Project Requirements

The key RFP activities outlined in this section include:

- a. *Work collaboratively with the Department in the exploration of various Value Based Payment (VBP) models for the Department's Medicaid program as an alternative to the current reimbursement structure. Models include the use of Managed Care Organizations (MCOs), Accountable Care Organizations (ACOs), and Independent Practice Associations (IPAs) to incorporate shared savings, bundled payment mechanisms based on an episode of care rather than an individual visit, and other total cost of care models.*
- b. *As part of this transformation, the Department anticipates major policy changes over the next several years with the implementation of federal and state health care payment care reform. The contractor will be required to establish and staff a VBP team to analyze federal and state policies and provide technical support and analysis in the transformation of the Department's Medicaid reimbursement system. The contractor will assist in quantifying the impact of proposed policy and legislative changes on existing capitation premiums; those changes that can affect the total number of eligible consumers, the underlying risk of the capitated population, or the Medicaid benefits package, which may increase or decrease the average capitation premium.*
- c. *The VBP team will also be tasked in assisting the Department with the development and continued maintenance of bundled payments and total cost of care benchmarks.*

Rising healthcare costs have put a financial strain on state Medicaid programs across the country, and in response, many states have explored alternatives to the traditional fee-for-service reimbursement model. These alternative payment models are often referred to broadly as value-based purchasing (VBP). We propose to staff a VBP team as follows:

Primary Consulting Actuary

- Robert M. Damler, FSA, MAAA – Principal and Consulting Actuary

Project Manager

- Jill Herbold, FSA, MAAA – Principal and Consulting Actuary

Actuarial Support

- Anders Larson, FSA, MAAA – Consulting Actuary

This team of individuals has experience consulting with payers, providers, and state Medicaid agencies in a wide range of VBP arrangements. Members of our VBP Team have been working with Medicare ACOs since 2011, including those participating in the Pioneer ACO Program, Medicare Shared Savings Program (MSSP), the Next Generation ACO program, and the Bundled Payments for Care Innovation (BPCI) program. We have also consulted with IPAs, provider networks, and health systems as they look to establish ACOs or negotiate shared savings agreements with commercial payers. Additionally, we have worked with the National Association of ACOs to author white papers for their members and assist with research of ACO operating expenses.

For each of the requirements in this scope of work, we have over 8 years of experience, which includes providing assistance to commercial payers, Medicare ACOs, as well as the Medicaid programs for the states of Ohio and Illinois.

Key Successes and Challenges

Success: Implementation of comprehensive primary care program

Our experience with both providers and payers has given us a deep understanding of the incentives and challenges for all parties. Since 2016, our VBP team has worked closely with the Ohio Department of Medicaid in financial modeling, monitoring, and evaluation of its Comprehensive Primary Care (CPC) program and have begun work related to its episode-based payments program. Our fiscal analysis of the program in 2016 was critical to Ohio winning approval for a State Innovation Model (SIM) grant. We have provided analyses to support the development of total cost of care targets for practices participating in the CPC program. We also developed a CPC Dashboard for the Ohio Department of Medicaid to monitor ongoing experience. The Dashboard allows department analysts and officials to monitor and project experience for its CPC Program, which is actually comprised of agreements with more than 100 participating provider organizations.

Success: Analysis of VBP Arrangements

We have consulted with MCOs and other commercial payers as they evaluate their own VBP agreements. In addition to serving in an advisory role to these clients, we have also performed detailed calculations required for the financial reconciliation of their agreements, including repricing, risk adjustment, and incurred but not reported (IBNR) reserves.

A key aspect of our experience that differentiates us from other competitors is our commitment to research that supports innovative VBP arrangements. We have worked with the National Association of ACOs to author educational materials and develop surveys for their members. We understand the range of capabilities that providers have, the challenges they face, and their incentives (such as bonus payments under MACRA). This perspective is critical as the Department continues to work with providers to participate in VBP arrangements. VBP can only be transformative if providers are engaged and motivated to dedicate effort toward reducing costs and improving quality.

Our team has published several white papers and research reports related to VBP (see sidebar). We are considered thought leaders in this space and have presented regularly at industry conferences.



VBP-related Articles by VBP Team Member

Differences between Medicare ACO Tracks that may impact ACO financial results

https://naacos.memberclicks.net/assets/docs/pdf/NAACOSWhitePaper_20171025FINAL.pdf

What predictive analytics can tell us about key drivers of MSSP results

<http://careers.milliman.com/insight/2017/What-predictive-analytics-can-tell-us-about-key-drivers-of-MSSP-results/>

Evaluating healthcare provider performance

<http://www.milliman.com/insight/2015/Evaluating-healthcare-provider-performance/>

Benefits Perspectives: Introduction to shared savings arrangements and ACOs

<http://www.milliman.com/insight/Periodicals/bp/Benefits-Perspectives-Introduction-to-shared-savings-arrangements-and-ACOs/>

Challenges with measuring savings in shared savings arrangements

<http://us.milliman.com/uploadedFiles/insight/2015/challenges-measured-savings.pdf>

Regulations and Actuarial Standards of Practice

As we perform our analyses, we will follow all applicable actuarial standards of practice (ASOPs). Several ASOPs relevant to our work with VBP include:

- Medicaid Managed Care Final Regulation (requirements for accuracy and timeliness of encounter reporting);
- ASOP 5 – Incurred Health and Disability Claims;
- ASOP 23 – Data Quality;
- ASOP 41 – Actuarial Communications;
- ASOP 45 – The Use of Health Status Based Risk Adjustment Methodologies; and
- ASOP 49 – Medicaid Managed Care Capitation Rate Development and Certification.

We will also work with the Department to ensure all proposed policy changes meet regulatory requirements, and we will work with the appropriate agencies (including CMS) to gain the necessary approvals.

Proposed Development Approach

Although Nebraska has already capitated most services to MCOs through Heritage Health, providers are still largely reimbursed from MCOs on a fee-for-service basis. There are a variety of VBP options that Nebraska may wish to explore, including models that have been tested in other states or innovative solutions applicable to Nebraska's unique challenges.

Below are some common VBP arrangements that could be explored in Nebraska.

- **Shared savings agreements:** Participating providers are eligible to share in a portion of the savings if they are able to reduce the total cost of care for patients attributed to them. Shared savings are often contingent on meeting certain quality measures. The participating providers can be health systems, primary care physician groups, independent practice associations (IPAs), or other groups of physicians, depending on the agreement. The Medicare Shared Savings Program (MSSP) Track 1 is an example of a shared savings agreement.
- **Shared risk agreements:** These arrangements are similar to shared savings agreements, except providers are required to reimburse the payer if the total cost of care for attributed patients increases (shared losses). The Next Generation ACO Program and the MSSP Tracks 1+, 2, and 3 are examples of shared risk agreements.
- **Pay for performance:** Participating providers are eligible for per member per month payments for meeting certain quality or utilization measures. These payments are typically not related to the total cost of care for patients. Pay for performance agreements can be established on their own or integrated with shared savings agreements. The Comprehensive Primary Care Plus (CPC+) model includes pay for performance, also referred to as a Care Management Fee.
- **Bundled or episode-based payments:** For certain types of medical episodes, participating providers are reimbursed on a per episode basis, rather than a per-service basis. These episodes are typically triggered by a major event, such as a joint replacement, but they include services performed after the event.

ACOs and PCMHs Defined

The terms **Accountable Care Organizations (ACOs)** and **Patient Centered Medical Home (PCMH)** are often used to refer to the participating providers in VBP agreements. PCMHs are generally centered around primary care or specialist physicians, while ACOs generally include a larger network of providers, including hospitals, physicians, and ancillary providers. These organizations can participate in various types of VBP contracts with different payers.

These arrangements incentivize providers to manage the cost of care throughout the entire episode. The Bundled Payment for Care Improvement (BPCI) initiative is an example of episode-based payments.

- **Global capitation or sub-capitation:** In a capitation arrangement, providers are paid a per capita amount that is intended to cover a set of services for a population of patients. These arrangements can include a subset of services, such as behavioral health, or all services that would normally be covered by the payer.

VBP arrangements can be run by the Department or by the MCOs. For instance, Nebraska requires MCOs to have VBP contracts that cover a certain percentage of providers, but it did not specify the payment mechanism that had to be used in the contracts. In other states, such as Ohio, the state is responsible for administering the program through a single set of rules, with MCOs required to pay a portion of the shared savings to providers. This can pose a challenge in capitation rate setting to properly align the incentives and financing for the MCOs, providers, and the state.

In certain VBP arrangements, providers are rewarded based on how actual expenditures compare to targets or benchmarks. These benchmarks can be developed in different ways – for instance, a total cost of care benchmarks could be set as a percentage of capitation revenue, but it could also be established based on historical experience specific to each given provider. The methodology for establishing these benchmarks is crucial to the success of VBP arrangements. There is a balance between setting an aggressive benchmark that limits false positive results and setting an attainable benchmark so that providers will be incentivized to participate. Actuarial adjustments can limit false positives by setting targets appropriate for each participating provider, but random fluctuation in claims cost for small populations is inevitable and must be recognized. As discussed in the sidebar earlier in this response, we have authored papers concerning challenges with establishing benchmarks and measuring savings in VBP arrangements.

We have observed situations where inappropriate benchmarks resulted in systemic underpayment or overpayment of participating providers. Overpayment of providers results in a net fiscal cost to DHHS and/or MCOs. Underpayment may result in a short-term gain for DHHS and/or MCOs, but it will lead to reduced participation by providers in the long-run.

We will work collaboratively with DHHS to understand the goals of each VBP initiative and identify the key factors that should be incorporated into appropriate benchmarks. As needed, we can assist in defining the methodology for establishing benchmarks. Additionally, we will assist in performing the calculations for setting the benchmarks and financial reconciliation at the end of each performance period. Members of our VBP team have accumulated several years of experience setting and reviewing benchmarks in Medicaid, Medicare, and commercial VBP arrangements. In our work with ACOs and other participating providers, we have assisted our clients in identifying calculation errors or making other substantive arguments to improve their reimbursement. Conversely, we have worked with States and other payers to ensure the payments made to providers are appropriate.

We will work collaboratively with DHHS to understand the goals of each VBP initiative and identify the key factors that should be incorporated into appropriate benchmarks.

On an ongoing basis, it is critical to monitor experience for VBP arrangements. Ongoing monitoring can increase financial preparedness for all parties, particularly in shared savings and shared risk arrangements, where lump sum payments are often made just once per year. Additionally, experience should be analyzed to ensure the arrangement is achieving its goals, and if not, what changes may be needed.

An example of a tool we have developed to monitor ongoing experience is the CPC Dashboard we developed for the Ohio Department of Medicaid.

It allows department analysts and officials to monitor and project experience for its CPC Program, which is actually comprised of agreements with more than 100 participating provider organizations. The results can also be aggregated, filtered, and stratified by a variety of dimensions, including practice size, region, managed care plan (MCP), and program, among others.

The Dashboard is presented in a Qlikview interface and is available through the web to approved users. The tool is updated on a quarterly basis. A screenshot of the CPC Dashboard is shown below, although values have been blurred. We have capabilities to build a similar tool that is customized to the specific VBP initiatives in place in Nebraska.



As DHHS explores different VBP options, we anticipate providing a variety of services throughout the process, including fiscal analyses, modeling of various program parameters, monitoring of ongoing experience, and reviews of contractual documents. In general, our process for this work consists of the following steps:

1. **Define the VBP initiative.** This includes the type of initiative, clarification of key parameters of the initiative, the timing of proposed roll-out, and key stakeholders. As discussed later in the 'Technical Considerations' subsection, these details can have a material impact on the results of the initiative.
2. **Scope out appropriate analysis.** This could include a multi-year fiscal impact analysis from DHHS' perspective, simulation modeling to test changes to key parameters, or a high-level concept paper. We want to make sure the analysis will meet DHHS' needs before beginning work. We will also communicate expected timing and budget requirements at this time.
3. **Perform analysis.** All of our analyses are performed under the supervision of VBP Team leads. Actuarial support staff will generally be needed for technical portions of the project, and other subject matter experts may be utilized as needed. Prior to completion, results and deliverables are peer reviewed by other approved professionals at Milliman with the appropriate expertise.
4. **Present findings.** Depending on the nature of the work, results may be delivered in the form of a written report, white paper, PowerPoint slide deck, Excel workbook, or Qlikview document. We prefer to schedule a teleconference or on-site meeting shortly after delivery of our work product. During these meetings, we will present our results, highlight key takeaways, address questions, and discuss strategy and next steps.

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Detailed Project Work Plan

We anticipate that our VBP team would work collaboratively with DHHS to analyze the fiscal and clinical impacts of different VBP initiatives being considered. We believe that the design of a detailed project work plan is contingent the types of VBP arrangements to be pursued by DHHS, and recognize the need to be flexible as DHHS explores various options. Ideal arrangements will improve quality and outcomes for patients, align incentives to payers and providers, and ultimately reduce net expenses for the Medicaid system in the long run. We understand that these contracts can be complex and can often result in unintended consequences if not thoroughly evaluated. Depending on the structure of the arrangements that DHHS pursues, changes to capitation rates or MCO contracts may be necessary. In some cases, CMS approval may be necessary, and we can help DHHS navigate this process based on our experiences and successes in other states.

Depending on the VBP initiatives that DHHS pursues, we will determine a reasonable approach to developing necessary benchmarks or bundled payments. In certain cases, the benchmarks or targets need to be established prospectively and communicated to participating providers before or during the performance year. In other cases, the final benchmarks are not determined until after the completion of the performance year. In either case, we will make the needed preparations to ensure the benchmarks can be provided to DHHS and participating providers in a timely fashion.

Staffing

The VBP team will be the primary points of contact for DHHS and will oversee all activities related to this scope of work. They will be assisted by other Milliman staff as needed, including analysts, clinicians, and other subject matter experts.

Deliverables and Due Dates

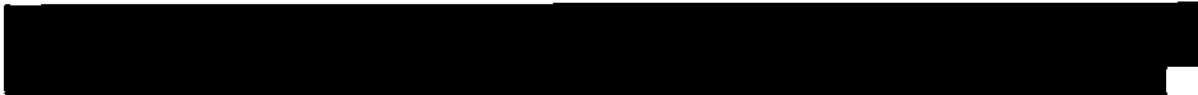
The timeline for completion of this scope of work will vary depending on the VBP initiatives DHHS pursues, the complexity of the benchmarks, and whether a methodology is already in place or needs to be developed. The VBP team will work with DHHS to determine reasonable timelines as the project evolves.

3. Policy and Financial Management - Managed Care Oversight

The key RFP activities outlined in this section include:

- a. Provide technical assistance in evaluating management agreements, contracts between related parties, and cost sharing and cost allocation methods as they impact Managed Care plans;*
- b. Assist in refinement of existing financial monitoring tools, on-site monitoring, and plan engagement techniques which include, but is not limited to plan encounter validation reports plan encounter data comparison reports;*
- c. Develop dashboard reporting with benchmark comparisons by category of service for the Managed Care programs;*
- d. Analyze the accuracy of MCO premiums based on overall MCO financial performance, respectively;*
- e. Provide on-site plan audit reviews as necessary including but not limited to financial, clinical and operational assessment;*
- f. Track and analyze financial impacts of populations transitioning from service based payments programs to Managed Care;*
- g. Develop annual financial comparison report based on cost report data and financial performance report data comparing all MCOs with each other and with a contractor developed average of all MCOs. The contractor should at a minimum analyze financial and medical management efficiency; MCO medical loss ratio; profitability and financial solvency; net worth per member. Ultimately this analysis will be used to assist the Department with the implementation of a profit cap requirement.*

Understanding of the Project Requirements



[REDACTED]

[REDACTED]

[REDACTED]

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Dynamic View		Service Detail	Charts					
Current Selections (0):		Nothing selected						
Capitation Structure: ALL								
Member Dim 2: ALL		Member Dim 1: Health Plan 1, Health Plan 2			Member Dim 1: Health Plan 1, Health Plan 2			
Member Dim 3: ALL		Data Source: Cost Report			Data Source: Encounter			
Member Dim 4: ALL		Insured Month: June 2015			Insured Month: June 2015			
		Member Months: 1,863,053			Member Months: 1,841,005			
Service Category	Service Category Detail	Unit Type	Utilization per 1,000	Cost per Unit	PPPM Cost	Utilization per 1,000	Cost per Unit	PPPM Cost
Inpatient	Medicare Inpatient	Days	1,020	\$2,158.15	\$2,158.15	991.9	\$2,482.71	\$2,482.71
	Emergency	Days	59.2	\$1,042.02	\$61.59	45.0	\$1,577.49	\$72.84
	Mental Health Substance Abuse	Days	30.3	\$1,024.81	\$30.77	75.5	\$955.88	\$72.20
	Well-Being	Days	45.7	\$745.29	\$33.84	35.7	\$710.73	\$27.42
	Maternity Inpatient	Days	174.0	\$278.58	\$48.36	15.4	\$245.34	\$5.77
	Other Inpatient	Days	11.7	\$249.48	\$2.87	4.4	\$2,881.27	\$5.13
	Total Composite		1,440.9	\$1,486.44	\$89.83	972.0	\$1,702.07	\$88.10
Outpatient	Emergency Room	Services	1,735.0	\$111.92	\$193.89	457.1	\$119.09	\$54.55
	Outpatient	Services	120.0	\$876.21	\$105.17	122.0	\$729.00	\$55.25
	Outpatient, Outpatient Center	Services	11.4	\$847.21	\$9.59	2.2	\$495.82	\$5.01
	Outpatient	Services	712.7	\$14.44	\$10.30	583.3	\$27.41	\$47.20
	Outpatient	Services	271.1	\$55.31	\$15.31	153.0	\$55.34	\$44.89
	Outpatient	Services	9,211.1	\$20.12	\$18.52	8,778.9	\$20.21	\$14.47
	Outpatient, Outpatient	Services	1,714.4	\$77.30	\$131.89	1,240.0	\$124.49	\$117.34
Total Composite		16,212.7	\$38.72	\$65.82	12,287.1	\$38.67	\$65.88	
Professional	Emergency Room	Services	1,051.2	\$15.59	\$4.51	272.1	\$45.50	\$4.57
	Outpatient	Services	271.9	\$119.00	\$32.23	201.3	\$111.91	\$56.17
	Outpatient	Services	2,019.2	\$39.79	\$5.56	2,282.0	\$39.49	\$8.10
	Outpatient	Services	1,984.1	\$24.34	\$7.22	1,952.8	\$29.10	\$8.58
	Outpatient, Outpatient	Services	2,523.1	\$2.40	\$4.76	2,195.1	\$16.00	\$4.24
	Outpatient	Unit Items	220.7	\$134.73	\$8.89	199.1	\$157.55	\$10.25
	Outpatient	Services	8,492.4	\$47.41	\$11.91	8,299.4	\$47.61	\$15.11
	Outpatient, Outpatient	Services	211.1	\$49.91	\$10.23	322.1	\$47.33	\$9.30
	Outpatient, Outpatient	Services	7,800.0	\$5.01	\$5.92	6,240.7	\$4.51	\$5.52
	Outpatient, Outpatient	Services	55.4	\$15.10	\$5.24	52.6	\$15.02	\$5.44
	Total Composite		21,012.7	\$25.03	\$50.83	19,647.1	\$25.34	\$47.33
Other	Emergency Room Substance Abuse	Services	234.2	\$27.59	\$1.31	181.1	\$32.70	\$2.00
	Outpatient	Services	1,102.5	\$14.04	\$2.93	1,154.4	\$21.00	\$2.70
	Prescription	Prescriptions	16,116.1	\$97.40	\$20.34	10,952.2	\$55.29	\$20.38
	Unit Items	Unit Items	1,151.1	\$25.98	\$2.03	575.8	\$25.08	\$3.44

Financial, Clinical, and Operational Audits

Milliman has extensive practical experience conducting compliance audits for both its public and private payer clients. This experience includes audits of operational data as well as on-site audits of major service/functional areas to identify inefficiencies and potential opportunities for performance improvement.

Milliman draws on a deep pool of resources within the organization to support this work. The teams conducting the reviews are multidisciplinary and depending on the areas of review could consist of health plan operations experts, nurses, physicians, pharmacists, statisticians, or information systems consultants. Other Milliman subject matter experts may be brought in to support engagements as needed to provide advice and recommendations to successfully complete the project. Our team has broad and deep experience, with most individuals bringing 10 or more years relevant industry experience to our client engagements.

Milliman consultants have performed audits to verify:

- Prompt payment of claims;
- Appropriate calculation of interest payments;
- Accuracy of beneficiary eligibility files;
- Accuracy of financial reporting;
- Accuracy of claim payment;
- Sufficiency of internal claims processing controls;
- Sufficiency of internal encounter data submission and management processes;
- Compliance with CMS data submission standards;
- Compliance with customer service standards; and
- Claim payment in accordance with provider contracts.

Milliman consultants work with health plans nationally and with many state Medicaid agencies. This broad exposure to a variety of requirements and processes has enabled us to identify best practices, to quickly and comprehensively assess a plan's operational processes and procedures, and to develop recommendations for improvements targeted to achieve specific programmatic goals in a variety of settings. This experience positions us well to serve the specific requirements outlined in this RFP.

Key Successes and Challenges



Challenge: Initial Data Collection Period

The largest challenge we have faced is the initial period of data collection. The MCOs can be resistant to change and often the initial rollout of our data collection and reporting processes is prolonged due to training calls and correspondence. Once the initial hurdle is out of the way, however, we have heard nothing but favorable feedback. Given that we have implemented this process for many of our state clients' managed care programs, we can gain efficiency for DHHS where Heritage Health MCOs have already gone through the initial phase, and can insert the Nebraska market into their larger portfolio of data submission. Additionally, we have adjusted the roll-out in many instances to start with minimum necessary data submission and then add more in

subsequent reporting periods. An example is South Carolina in 2017 – we initially rolled out only the encounter data quality component and have incorporated the full suite of quarterly reporting to their data collection process.

Regulations and Actuarial Standards of Practice

There are numerous regulations and actuarial standards of practice (ASOP) that relate to managed care oversight. We are intimately familiar with these and have helped shape them on a nationwide level. A few of the relevant items are included below:

- Medicaid Managed Care Final Regulation – requirements for accuracy and timeliness of encounter reporting;
- ASOP 5 – Incurred Health and Disability Claims;
- ASOP 23 – Data Quality;
- ASOP 41 – Actuarial Communications; and
- ASOP 49 – Medicaid Managed Care Capitation Rate Development.

Proposed Development Approach



[REDACTED]

[REDACTED]



[REDACTED]

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Although administrative costs will vary on a PMPM basis across different populations, the administrative cost ratio can be consistent within each plan. We will further verify that categories for items such as pay for performance and taxes are consistent with what has been paid out or required under the contracts between DHHS and the MCOs. Milliman conducts an annual review of Medicaid health plan financial information and this summary can be utilized in the comparison of the administrative costs on a percentage of revenue basis to assess reasonableness of the reported dollars and benchmark Nebraska Medicaid administrative costs to other states.

Another key area within administrative costs is the reporting of related party transactions. This is a situation where the MCO is paying fees to a parent company, a sister company, or a subsidiary of the MCO. These arrangements require special attention due to the potential for shifting profits among companies.

Medical Costs and Medical Claims Costs

We will evaluate the medical costs noted on the quarterly data templates to assess the reasonableness of the information. The reported medical costs represent the summation of the separate category of service reported medical costs.

Each of these categories of service will be reviewed and evaluated separately. The review of the medical claims costs will involve the steps previously described regarding comparison to submitted encounter data. The reports will be compared to one another for each MCO within a given time frame as well as historically against each plan's respective historical reports. To the extent that these comparisons can be done on a rate cell by rate cell basis, we will monitor the changes over time and help to identify potential issues in the reported claims.

Care Management Costs

Case management costs are a non-benefit expense which represents the dollars spent managing the care of the patients. Costs could include staff salaries, provider and patient incentive payments, or infrastructure build-up costs to handle the patient load. Increasing the amount of funds that are spent on care management should produce lower medical claims costs. We will compare the care management costs reported by the MCOs to the medical claims costs and test the appropriateness of the relationship.

Profit Margin

Comparing total revenues to claims and administrative expenses yields the profit margin for the MCOs. We are looking at this ratio to ensure there is a reasonable balance between a MCO's reasonable return on investment and the taxpayer's need for value in the program.



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1. Pre-Audit Conference and Data Collection for MCOs

To initiate the audit, Milliman will conduct a pre-audit conference with MCO management. This conversation sets the stage for the audit and enables Milliman and MCO plans to clarify expectations, confirm timing, and respond to specific data and information requirements. Milliman will request a claim dataset from the MCOs. In addition, Milliman request supplemental information about the MCOs claim intake and payment procedures as well as some basic metrics regarding claim handling such as denial rates and adjustment rates.

2. Automated Audit

Based on the understanding of the MCO's processes gathered in Task 1, Milliman will use an automated tool, to calculate the number of days elapsed between the date of claim receipt, and the date of final claim disposition (payment or denial). This analysis will provide the percentage of claims not paid within the prompt payment standard. We will also evaluate whether the supplied metrics are in alignment with similar metrics calculated from the claims data.

3. Manual Audit

To verify the validity of the claim data set and the results of the automated audit, Milliman will perform an on-site manual audit of a statistically derived random sample of claims for each MCO. Milliman will gather and document data from the source documentation. For example, Milliman will pull the paper claims (or electronic images if the claims are scanned) and then validate that the date stamp matches the receipt date shown on claim record. For electronically submitted claims, Milliman will check the transmission date on the 837 record against the receipt date shown on the claim record. Milliman will validate that the date the check was mailed matches the date of payment shown in the claim file. For denied claims, Milliman would compare the date of the Explanation of Benefits (EOB) to the date shown in the claim record. The manual audit will validate the claims data sets received from the selected MCOs and the results of the prompt payment measure.

During the on-site visit, Milliman will also perform a review of the claims handling and payment processes to identify any procedures that are impeding prompt pay or skewing the prompt pay statistics. The previously gathered supplemental information is also reviewed against actual practice in the MCO.

4. Audit Report

The results of both the automated and manual sections of the audit will be evaluated and a Milliman will provide DHHS with a report detailing the results of the audit for each MCO. The report will include Milliman's findings and any recommendations for improvement. Based on the audit results, there may be a need for process or procedure modifications or other changes to the MCO's management processes. Milliman will work with DHHS to improve MCO compliance with the prompt payment requirement.

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Technical Considerations

Throughout the continuous managed care oversight cycle, there are several technical considerations that need to be made. The following provides a list of items that Milliman will consider in managed care oversight for DHHS:

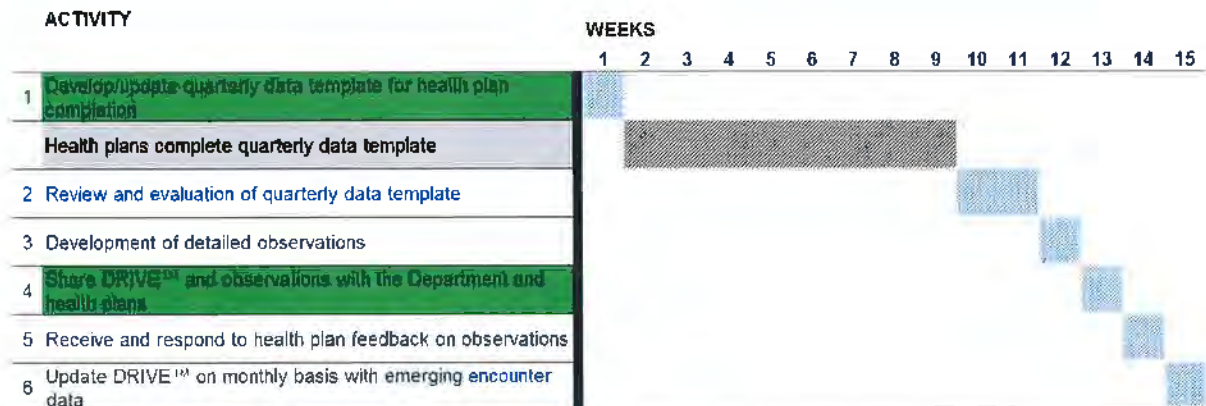
- Availability of complete and accurate data – we will work with DHHS to ensure complete and accurate information is available for managed care oversight, including, but not limited to:
 - MCO benefit expense;
 - MCO financial information;
 - Enrollment data;
 - Encounter data; and
 - Quality data.
- Communication and execution of processes – we have extensive experience in communicating the processes required for managed care oversight with both state and health plan leadership. The execution of the processes surrounding managed care oversight are critical to program success.
- Transparency and understanding of data – we will review all data components and present them in a way that DHHS can make data-driven decisions with regards to their managed care policies.

Detailed Project Work Plan

Policy and Financial Management Services

Monitoring Using Milliman DRIVE™ - Project Work Plan

Plan Duration



[REDACTED]

[REDACTED]

Step 3: Develop detailed observations (Week 12)

After completing a review and evaluation of the health plan reported information relative to the information in the state's data warehouse, Milliman will develop detailed observations identifying any material discrepancies between the two data sources. This detailed observation log is crucial to the continuous improvement of encounter data.

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[REDACTED]

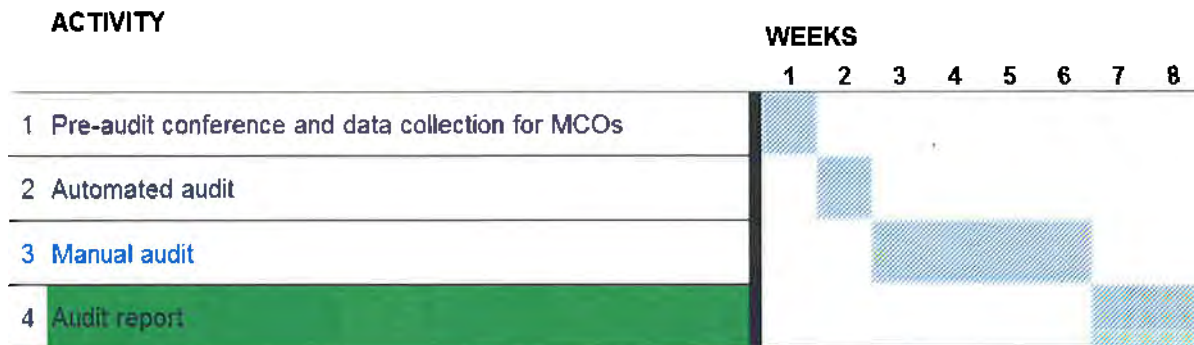
[REDACTED]

The following graphic illustrates the project work plan for performing financial, clinical, and operational audits. While these are not regularly scheduled, to the extent they are necessary, this is the process and timeframe that would be followed.

Policy and Financial Management Services

Financial, Clinical, & Operational Audits - Project Work Plan

 Plan Duration



Staffing

Primary Consulting Actuary

- Robert M. Damler, FSA, MAAA – Principal and Consulting Actuary.

Project Manager

- Jeremy A. Cunningham, FSA, MAAA – Consulting Actuary.

Actuarial Support

- Colin R. Gray, FSA, MAAA – Actuary; and
- Jaime M. Fedeler – Actuarial Healthcare Data Analyst.

Data & Technical Support Analysts

- Matthew J. Brunsman – Healthcare Data Analyst; and
- Oksana V. Owens – Healthcare Data Analyst.

Resumes for each of the proposed team members are included in Appendix 6.

[REDACTED]

SOW 3 – 1915 (b) Waiver:

The contractor will assist with current and new programs developed and operating under the 1915(b) Waiver, waiver renewals, and waiver amendments. The 1915(b) Waiver is renewed every two (2) years and must be amended with any program changes affecting the managed care program.

This activity would include documentation and spread sheets for cost effectiveness and completion of relative narrative portions of the waiver renewal or amendment applications in accordance with CMS requirements. Documentation, spreadsheets, and narrative portions of waiver renewal or amendment applications as stated above to be delivered six (6) months prior to renewal date for applicable waivers. Bidder should include details of experience in the preparation of 1915(b) waivers.

Contractor will submit exhibits related to 1915(b) waiver 120 days or 4 months prior to their effective date.

Based on program changes, it may be necessary to repeat this process.

A Note on the Response Structure

Section V.C of the RFP indicates that the information that should be provided for each proposed service. Additionally, Section VI.A.3 outlines the required structure for the Technical Proposal. Therefore, we have structured our response as follows, to address the requested information:

VI.A.3.a Understanding of the Project Requirements

- Prior experience performing this service for other states or companies of similar size and Medicaid Managed Care enrollment numbers to the State of Nebraska ([Section V.C.c](#)).
- Successes achieved, in regards to prior experiences listed above ([Section V.C.d](#));
- Description of challenges present with rate-setting and how bidder addresses each challenge ([Section V.C.e](#));
- Number of years performing the service ([Section V.C.f](#));
- All analysis, findings and/or recommendations are to be in line with current statutory/actuary as it applies to each SOW ([Section V.C.j](#)).

VI.A.3.b Proposed Development Approach

- Methodology for performing the service ([Section V.C.b](#))

VI.A.3.c Technical Considerations

- Any requirements to be provided by the Department ([Section V.C.g](#))

VI.A.3.d Detailed Project Work Plan

- Process, staffing and timeframe ([Section V.C.a](#));
- An estimated timeline for completion of services ([Section V.C.h](#))

VI.A.3.e Deliverables and due dates

Understanding of the Project Requirements

The Milliman project staff included with this response has a thorough understanding of CMS requirements regarding 1915(b) waiver applications and renewals. We routinely update 1915(b) waivers for a number of states. Our role in the development of these waivers includes modifying the applicable CMS 1915(b) Appendix D workbook along with language in the application narrative.

We have worked with a number of states to implement a new waiver as well as amending current waivers. States have traditionally utilized the 1915(b) option to waive a beneficiary's choice by mandating managed care enrollment.

Milliman understands the State of Nebraska has a 1915(b) waiver, which authorizes the operation of the Nebraska Medicaid Managed Care Program. The waiver authorizes mental health and substance abuse services for managed care clients statewide in addition to primary care services for Children with Special Health Care Needs and the American Indian/Alaskan Native population in select areas of the state. The waiver was most recently approved with an effective date of July 1, 2017 and is set to expire on June 30, 2019.

Milliman will provide technical and professional advice in the development of the 1915(b) waiver materials along with follow-up discussions with CMS, if necessary. We will be able to assist in the development of new waivers, waiver renewals and amendments to waivers during the active waiver period. We are familiar with the process for renewal and recognize the need to have a renewal every 2 years. Milliman has also assisted states in transitioning 1915(b) waivers from a 2-year period to a 5-year by adding a Medicaid and Medicare dual eligible population to the Medicaid Eligibility Groups (MEGs).

Milliman has extensive experience in working with other states on developing, monitoring, and renewing 1915(b) waiver applications as well as other waiver filings. We have extensive experience in working with states for 1915(b), 1915(c), and 1115 waivers. We have performed these services over the course of our relationships with state Medicaid agencies for over 15 years. We have been heavily involved in the initial filings as well as quarterly monitoring, renewals and amendments. Our assistance has been part of the data analysis, technical assistance and waiver form completion.

Milliman has also performed these services for the following:

- State of Michigan, Department of Health and Human Services;
- State of Indiana, Office of Medicaid Policy & Programming;
- State of Illinois, Department of Healthcare and Family Services;
- State of Ohio, Department of Medicaid; and
- State of South Carolina, Department of Health and Human Services.

Milliman has helped to provide significant savings to the states listed above in instituting and maintaining the respective waivers. Milliman has actively participated in meetings and phone calls with CMS on numerous occasions in regard to assisting the states in getting these waiver applications submitted and approved. Milliman continually monitors the emerging experience with the approved waiver filings to ensure compliance.

Additionally, with Milliman's successful experience in other states, using a multi-disciplinary team of actuaries, policy consultants, and clinicians (doctors, nurses, and pharmacists), we can provide the comprehensive support needed to help DHHS move initiatives forward. We can provide you with a robust set of options, help you make a decision as to how to proceed, and provide regulatory, communication, and actuarial support with the implementation.

We can suggest an implementation strategy (for example an 1115 waiver or 1915(i)) assist with drafting state plan amendments or administrative rules, and provide updated fiscal impact estimates at any stage of the process.

The following section showcases our ability to leverage our extensive experience to fully and efficiently support 1915(b) waiver submissions, while providing DHHS with a full array of options to address any challenge.

Key Successes and Challenges

Milliman has helped a number of state Medicaid agencies with successful 1915(b) waiver submissions. We highlight a few specific examples below, to demonstrate our contributions to the success. At the same time, we recognize that unusual challenges may arise. For each challenge, we also provide a description of how we work to avoid these situations and mitigate the impact, should they occur.

Success: A smooth and efficient 1915(b) renewal process

The process of developing and submitting a 1915(b) waiver application is intended to follow a similar methodology based on prescribed instructions from CMS. However, each waiver application brings with it different nuances that result in a variety of changes across programs. Our ultimate goal is to assist our state clients in creating a smooth and straightforward process that proves successful with minimal questions and timely approval. The State of Michigan, which has operated the managed care program under 1915(b) waiver authority for many years, provides a good example of an effective and efficient process.

State of Michigan – Department of Health and Human Services

Milliman has worked with the State of Michigan since 1997 on various programs and projects. We have assisted in the maintenance and submission of numerous waivers over the course of our relationship. The specific 1915(b) waivers that we have worked on include the following:

- Comprehensive health plan: A 5-year waiver covering the Low-income family, medically complex children, Blind, Aged, and Disabled adults and children, and Medicaid-Medicare dually eligible populations. This waiver includes both managed care payment and FFS wrap-around expenditures covering approximately 1.3 million lives.
- MI Choice waiver program: The 1915(b) portion of this waiver reflects coverage of the 1915(c) waiver services under a managed care program for 5 years.
- MI Health Link: We assisted the state in developing the 5-year waiver for the Medicaid-Medicare dual demonstration population that was implemented in calendar year 2015.
- Healthy Kids Dental: We routinely provide renewals and amendments for the waiver covering the managed care kids dental program that is on a 2-year basis.

Ohio provides a second example of a state in which a number of 1915(b) renewals are managed smoothly and efficiently.

State of Ohio – Department of Medicaid

Milliman has worked with the State of Ohio since 2015 to maintain and renew the following 1915(b) waivers:

- Ohio Special Needs Children: A 2-year waiver covering the SSI children, SSI CHIP, MAGI children and MAGI CHIP population. This work has included an amendment and a renewal.
- Ohio's Integrated Care Delivery System (ICDS) Demonstration: This work encompasses the 1915(b) portion of the 5-year waiver for the Medicaid-Medicare dual demonstration population referred to as the MyCare Ohio program.
- Recovery Management Services: This waiver provides coverage for recovery management services, including coordinating all services received by an individual and assisting the individual in gaining access to needed Medicaid State Plan and 1915(i) services, as well as medical, social, educational, and other resources, regardless of funding source.

Challenge: Estimating adverse selection affecting opt-out members

State of Illinois - Department of Healthcare and Family Services

Milliman has assisted the State of Illinois in the maintenance and submission of a few waivers over the course of our relationship. We recently assisted the state with a 1915(b) waiver submission for the Managed Long-Term Supports and Services program. This program began in July 2016 and provides coverage of nursing facility and HCBS waiver services on members which opt-out of the Medicare-Medicaid Financial Alignment Initiative (FAI) in particular areas of the state.

For the cost neutrality portion of the submission, we projected costs for members who opt out of the FAI. Because the program was new, actual program experience was not available, and it was unclear which members would choose to opt out and how that would affect their costs. We projected costs in a manner that, when tested retrospectively, would be likely to meet cost effectiveness, while making sure the methodology was fully transparent to all parties.

Success: Leveraging existing county funding for mental health services

State of Indiana – Family and Social Services Administration

Milliman has worked with the State of Indiana for over 15 years and assisted in several 1915(b) waiver applications. Although some of these waivers have been replaced with an 1115 waiver, three remain under 1915(b) waiver authority. The oldest of the three, the Medicaid Rehabilitation Option waiver, was used to convert a fully state funded mental health services program to a Medicaid program, eligible for federal matching funding. Prior to the conversion to Medicaid, funding raised by each county been allocated to a local Community Mental Health Center (CMHC). To guarantee that funding raised by a county is retained locally, the program operates under a selective contracting waiver which allows supportive funding to be allocated individually to several dozen CMHCs.

- **Medicaid Rehabilitation Option (MRO) waiver** – This waiver is designed to assist in the rehabilitation of a consumer's optimum functional ability through use of MRO services in an individual or group setting in the community. Based on the covered members, this waiver was approved for 5 years.

Success: Maintaining enhanced behavioral health services after a 1634 transition

The State of Indiana transitioned from 209(b) to 1634 status in 2015. As part of the transition, the state was permitted to end the spend down program for higher income disabled members. To mitigate the impact of the transition on spend down members, the state adjusted the full Medicaid aged and disabled eligibility income threshold to 100% of federal poverty guidelines, and raised Medicare Savings Program eligibility to 180% of poverty guidelines. However, analysis showed that these measures would not reach all of the disabled members with serious mental illness currently using enhanced behavioral health services beyond those covered by Medicare. To maintain access to services, Milliman assisted the state with developing 1915(i) state plan HCBS programs to target these members, combined with a 1915(b) selective contracting waiver to utilize existing MRO funding.

- **Adult Mental Health Habilitation and Behavioral Healthcare Coordination Services:** These two 1915(i) programs also operate under 1915(b) authority. It is designed to cover coordination of healthcare services for individuals who meet the needs defined in the waiver along with habilitation of a mental disability and maintenance of an individual's best possible functional level. Based on the covered members, this waiver was approved for 5 years.

Advised on combining
1915(i) state plan HCBS
programs with 1915(b)
selective contracting waivers

Success: Enrolling foster and adoption assistance children in managed care

The last of the State of Indiana's three 1915(b) waivers allows foster and adoption assistance to enroll in managed care. This supports a higher level of care coordination and oversight than is currently present in the general fee-for-service program.

- Hoosier Care Connect: The Hoosier Care Connect managed care program for disabled members and foster children uses 1915(b) authority to enroll foster and adoption assistance children.

Success: Supporting home visits for pregnant women

State of South Carolina – Department of Health and Human Services

Milliman has worked with the State of South Carolina since 2008 and assisted in developing and implementing the South Carolina Enhanced Prenatal and Postpartum Home Visitation Pilot Project. This program is a 2-year waiver covering enhanced services for pregnant women with home visits. We assisted in the development of the program structure and submitting the 1915(b) application to CMS.

As with any submission to CMS, there come different aspects that may create challenges along the way. Through our team-approached and streamlined process we are able to minimize questions from CMS and respond quickly to guarantee timely approval of the waivers.

Regulations and Actuarial Standards of Practice

Milliman understands the requirements necessary to maintain a 1915(b) waiver program. We follow current CMS regulations and requirements, as outlined in technical assistance. We understand that information submitted for new waivers differs from submission materials need for renewals and amendments. We also are familiar with the process of transitioning 1915(b) waivers from a 2-year period to a 5-year by adding a Medicaid and Medicare dual eligible population to the MEGs.

When developing projections for 1915(b) submissions, we are bound by applicable Actuarial Standards of Practice (ASOP), including but not limited to: ASOP No. 12, Risk Classification, ASOP No. 23, Data Quality, and ASOP No. 41, Actuarial Communications.

After the 1915(b) filing has been submitted, if necessary, we assist our state clients in responding to questions from CMS. We are committed to providing CMS and the state with technically accurate, robust, and prompt responses to CMS questions in order to expedite approval in an effective manner.

When state clients modify their programs, we are available to advise on the authority options, and provide pros and cons on whether 1915(b) authority, 1115 authority, or even 1932(a) state plan authority may best meet a state's overall programmatic needs under a managed care delivery system.

For each proposed program innovation, we help clients understand the advantages and disadvantages of 1915(b) authority relative to 1115 waiver or state plan authority.

Proposed Development Approach

The general approach in performing a renewal or initial development of a 1915(b) waiver application is to gather base experience data and project future experience based on potential changes to the program to report to CMS. The information that is required by CMS to perform these tasks is defined by the Cost Effectiveness workbook and preprint narrative templates. Milliman has extensive experience working with both of these items. We will work closely with DHHS to not only ensure compliance with the waiver filing, but further determine the most appropriate mechanism to provide flexibility and ideal arrangement.

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Based on the populations covered under Nebraska's Medicaid Managed Care Program waiver, Milliman will work with DHHS to access the appropriate base experience to be categorized as the retrospective period information to test prior cost effectiveness. Based on information Milliman has gathered from working on other projects for DHHS as well as national data, Milliman will develop trends for both enrollment and claims experience. The projected claims experience will be input as the prospective period information for purposes of the waiver filing. At the request of DHHS, Milliman will provide assistance in responding to the written portion of the waiver filing.

Steps for waiver renewal



Milliman's approach to waiver assistance will be consistent with the approaches we have utilized across other state Medicaid clients to produce successful approvals from CMS. The basic steps for cost effectiveness development will be the historical (retrospective period) data, developing the trend and program changes, and utilizing this information to develop the cost effectiveness materials.

Technical Considerations

Throughout the process of creating the 1915(b) waiver filing, there are several technical considerations that need to be made. The following provides a list of items that Milliman will consider in developing a waiver renewal, amendment, or initial filing:

- Medicaid Eligibility Groups (MEGs) that are included in the waiver filing;
- Identifying the proper retrospective period for purposes of the waiver filing;
- Defining the prospective period(s) to be assigned to the waiver;
- Policy or program changes that will impact the enrollment and claims experience of the affected populations; and
- Updates to the templates from previous submissions to CMS.

Additional information that will be utilized to elaborate on requested information included in the written portion of the waiver filing.

Detailed Project Work Plan

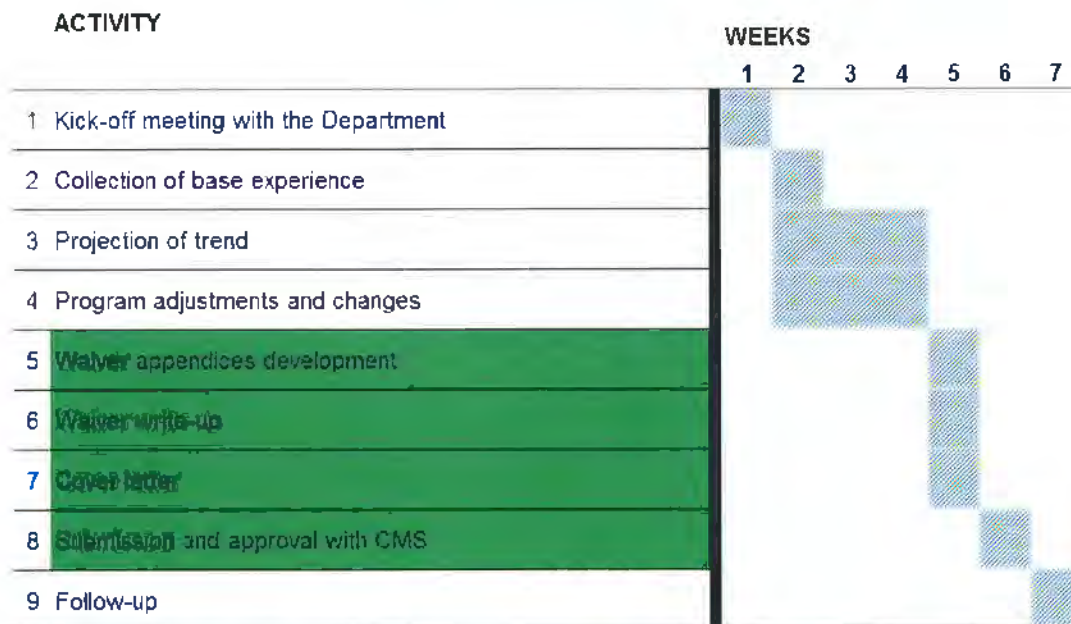
The following provides our proposed project work plan for assisting the Department in the development of 1915(b) waiver applications.

Project Flow and Timeline

1915 (b) Waiver

1915 (b) Waiver - Project Work Plan

 Plan Duration



Step 1: Kick-off meeting with the Department (Week 1)

Milliman will meet with the Department to discuss the current waiver and any potential amendments or renewal. We will assist in the structuring of the filings and work with the Department to identify the appropriate timing and data needs.

Step 2: Collection of base experience (Week 2)

Milliman will collect from the Department the historical managed care, fee-for-service wraparound, and other related costs to be reported in the standard CMS waiver filing workbooks. Milliman will also collect the historical enrollment and administrative costs associated with the waiver for the included populations. This information is reported as the retrospective periods for purposes of the waiver filing. Milliman will work with the Department to ensure that information gathered from historical periods is consistent with information that is reported to CMS on a quarterly basis via the CMS-64 reports. The experience and enrollment will be collected based on the different Medicaid Eligibility Groups (MEGs) that are included under each waiver filing.

Step 3: Projection of trend (Weeks 2-4)

Milliman will review the historical experience to develop both enrollment and expenditure trends. These trends will be used to project the future periods that are the subject of the cost effectiveness waiver filing. The future periods are identified as the prospective periods for purposes of the waiver filing.

Step 4: Program adjustments and changes (Weeks 2-4)

Milliman will work with the Department to identify potential plan or program changes that may affect future experience. These adjustments will be incorporated into the waiver filings, whether for an amendment or renewal.

Step 5: Waiver appendices development (Week 5)

Milliman has extensive experience working with the development of cost effectiveness filings under 1915(b), as well as 1915(c) and 1115 waivers. We are familiar with the structure of the required appendix materials. The most recent version of the Department's waiver submission combined with any revisions to the template made by CMS will be used as the format for any waiver renewals or amendments. The provided base experience data will be used for the retrospective years and prospective periods will be based on the projected future experience. Milliman will also work with the Department on potentially expanding the range of the waiver renewal period allowed by the passage of the Affordable Care Act.

Step 6: Waiver write-up (Week 5)

Milliman will work with the Department to complete the write-up portion of the 1915(b) waiver submission. The write-up contains several appendices including the Appendix D (Cost Effectiveness demonstration). Milliman anticipates that the Department will complete certain portions of the write-up and Milliman will review along with the development of the Appendix D materials.

Step 7: Cover letter (Week 5)

Milliman will provide a cover letter detailing the steps taken for each step of the waiver filing process and development of the materials, along with the materials that the Department will be submitting to CMS.

Step 8: Submission and approval with CMS (Week 6)

Milliman will work with the Department to ensure the proper materials are provided for submission and subsequent approval of the cost effectiveness waiver by CMS. Milliman understands the need to provide these materials timely so they may be submitted to CMS four months in advance of the renewal dates.

Step 9: Follow-up (Week 7)

Milliman will work with the Department to respond to potential CMS questions and requests throughout the approval process as well as be available for phone calls and meetings as requested.

Staffing

The team of consultants and analysts proposed under this scope of work have extensive experience with 1915(b) waiver submissions, in addition to a broad array of experience across Medicaid managed care programs and the healthcare industry. The organizational structure outlined below shows the primary staff that will be dedicated to providing 1915(b) waiver actuarial and consulting services to the Department.

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The breadth and depth of the expertise of these individuals underscores our commitment to providing the highest quality actuarial and consulting services to the State of Nebraska. **While the services performed under this RFP will be performed by the staff in the Indianapolis office, we have countless resources available to access the intellectual capital generated by our global firm.**

Primary Consulting Actuary

- Robert M. Damler, FSA, MAAA – Principal and Consulting Actuary.

Project Managers

- Christopher T. Pettit, FSA, MAAA – Principal and Consulting Actuary

Actuarial Support

- Jeremy A. Cunningham, FSA, MAAA – Consulting Actuary.
- Jaime M. Fedeler – Actuarial Healthcare Data Analyst.

Resumes for each of the proposed team members are included in Appendix 6.

Deliverables and Due Dates

For purposes of a waiver renewal, Milliman will provide a data request summarizing the information needed to report the base experience to be utilized in the renewal application along with the most recent submitted and approved version of the 1915(b) waiver and any specific program changes that will affect the renewal period. Based on the information available to Milliman to develop enrollment and expenditure trends, Milliman may request additional data. After all data is provided, Milliman will need approximately two to three weeks to develop the appendix materials to be submitted with CMS.

Milliman will prepare a preliminary version to share with the Department for its review. During this time, Milliman will work with the Department to complete the written portion of the waiver application. Following review and comments from the Department, Milliman will finalize the appendix materials and ensure completed information is ready for submission to CMS. Milliman anticipates that this step will require one to two additional weeks to provide the initial draft to be submitted to CMS.

The timeline following submission to CMS will depend upon the response time from CMS and questions or comments that will impact the waiver's approval.

SOW 4 – Program of All-Inclusive Care for the Elderly (PACE) Rate Setting

The contractor shall, upon the Department's request, calculate a PACE capitation rate for a fee-for-service equivalent. The rate is designed to result in cost savings relative to expenditures that would otherwise be paid for a comparable nursing facility eligible population not enrolled under the PACE program. Written reports providing detail of determining the capitation rate and recommendation of the Upper Payment Limit rate to be proposed to PACE providers by region will be required with this activity.

Proposals should include details of experience in the calculation of (PACE) capitation rates.

A Note on the Response Structure

Section V.C of the RFP indicates that the information that should be provided for each proposed service. Additionally, Section VI.A.3 outlines the required structure for the Technical Proposal. Therefore, we have structured our response as follows, to address the requested information:

VI.A.3.a Understanding of the Project Requirements

- Prior experience performing this service for other states or companies of similar size and Medicaid Managed Care enrollment numbers to the State of Nebraska (Section V.C.c);
- Successes achieved, in regards to prior experiences listed above (Section V.C.d);
- Description of challenges present with rate-setting and how bidder addresses each challenge (Section V.C.e);
- Number of years performing the service (Section V.C.f);
- All analysis, findings and/or recommendations are to be in line with current statutory/actuary as it applies to each SOW (Section V.C.j).

VI.A.3.b Proposed Development Approach

- Methodology for performing the service (Section V.C.b)

VI.A.3.c Technical Considerations

- Any requirements to be provided by the Department (Section V.C.g)

VI.A.3.d Detailed Project Work Plan

- Process, staffing and timeframe (Section V.C.a);
- An estimated timeline for completion of services (Section V.C.h)

VI.A.3.e Deliverables and due dates

Understanding of the Project Requirements

The Milliman project staff included with this response are knowledgeable in the regulations and guidelines established for setting capitation rates for PACE populations, and understand how to develop rates that are both cost effective and sustainable. SOW 1, Capitation Rate Setting, outlines our experience in general capitation rate topics; many of these techniques are generally applicable to PACE capitation rate setting. Our consultants additionally have extensive knowledge of the special considerations necessary in developing PACE capitation rates and other long-term care and home and community-based service (HCBS) programs.

We typically set the PACE capitation rate for our state clients outlined in the corporate overview (to the extent they have a PACE program). In some cases, state clients prefer to set the capitation rates with their

staff and we perform a technical review of the work. We are experienced in any PACE rate setting arrangement DHHS prefers.

The following section showcases our ability to leverage our extensive experience to fully and efficiently support capitation rate development for the PACE program, while providing DHHS with a full array of options to address any challenge.

Key Successes and Challenges

PACE programs are unique within the Medicaid managed care arena. These programs are comprised of a number of small "brick and mortar" sites, and even taking into account multiple sites, often are only available over a limited geographic area based on PACE provider availability. They are limited to persons age 55 or older, and may be one of multiple long term services and supports (LTSS) Medicaid managed care options in the state. We have assisted state clients with initiating, operationalizing, and sustaining their PACE programs by developing actuarially sound PACE capitation rates and providing financial consulting on the program's performance relative to other state programs. The following list highlights some of the key challenges we have worked with our state clients to resolve alongside with successes achieving a successful PACE program.

Please also see the Technical Considerations section for a discussion of other challenges overcome, viewed from a technical perspective.

Challenge: Initiating a new state PACE program

The State of Indiana started its PACE program in state fiscal year 2015. The first years of implementation of any managed care program are often the most challenging for all stakeholders. The PACE program requires provider investment to manage setup costs and initial regulatory filings while nurturing pathways to build membership to a sustainable level. We assisted the State of Indiana and its PACE providers to start a successful PACE program by developing actuarially sound PACE capitation rates and working through operational issues in starting the program as well. For example, the executive leadership of PACE organizations often has limited experience in managing financial risk, especially with newer PACE programs, so working to educate stakeholders on the capitation rate setting process was a critical element of the initiation of the PACE program.

Additionally, we helped the State decide how the populations should be stratified for capitation rate payment purposes, determine appropriate savings targets relative to the amount that would otherwise have been paid, HCBS / institutional membership blend targets, and how the patient liability amounts should be collected and reflected in the PACE capitation rates. We worked through these issues with key Indiana PACE stakeholders to ensure all parties were comfortable with the PACE capitation rate development for the initiation of the program.

Success: Sustainable and cost effective rates over the long term

After PACE programs have reached a critical mass of members, we assist states in maintaining well-functioning PACE programs. The goal is to develop rates that are sustainable - allowing PACE providers sufficient funding to remain in business - while also encouraging economy and cost effectiveness. South Carolina's PACE program has been established for over 25 years, and is a good example of a successful and well-maintained program. We have developed capitation rates for the PACE program during our entire contract with the state. Assumptions developed for PACE capitation rate setting are also used in other analyses we perform for the state, such as the budget forecasting and dual demonstration program capitation rate development. This ensures consistency and is also an efficient process that allows for reduced administrative costs for this mature program.

Sustainable and
cost-effective rates

Success: Effective and efficient review of PACE rates developed by the state

The State of Michigan develops PACE capitation rates with internal staff from their actuarial department. We have worked with Michigan to ensure compliance with CMS PACE regulations in their PACE rate development, respond to CMS questions on the PACE rate development, as well as performed a technical review of their calculations. While this arrangement is different from how we assist many other states with their PACE capitation rate development, our flexibility allows us to meet the state's needs for their specific staffing situation and provide the highest value to our clients.

Regulations and Actuarial Standards of Practice

Milliman understands the requirements necessary to develop the PACE capitation rates as defined in this SOW. We routinely develop PACE UPL amounts and corresponding PACE capitation rates for our state clients, and in doing so follow current CMS regulations and requirements. We follow the CMS PACE Medicaid Capitation Rate Setting Guide, released December 2015. This guide outlines rate setting considerations and requirements for documentation when developing PACE capitation rates. Specific PACE capitation rate development considerations and technical details are outlined in the Proposed Rate Development section of this response.

While an actuary is not required to certify the PACE capitation rates, CMS encourages an actuarial certification within this guide. When issuing an actuarial certification for the PACE capitation rates, we are also bound by the Actuarial Standards of Practice (ASOP) applicable to Medicaid capitation rate setting, as well as all other ASOPs. Please see SOW #1 for our experience and adherence to Medicaid capitation rate setting ASOPs.

After the PACE rates are certified, if necessary, we assist our state clients in responding to questions from CMS on the rate certification. We are committed to providing CMS and the state with technically accurate, robust, and prompt responses to CMS questions so that the PACE rates may be approved and implemented in a timely fashion.

Finally, Milliman is actively involved in PACE industry thought-leadership and non-binding PACE rate setting guidance. For example, Milliman contributed to the workgroup that produced the September 2016 PACE Medicaid Rate Setting Guide produced by the National PACE Association.

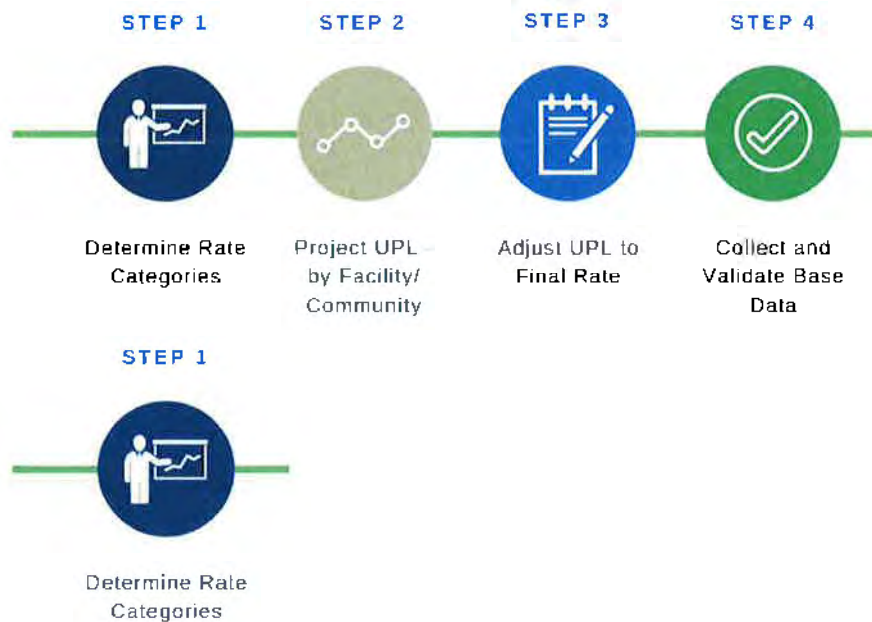
Two of the nine consultants who worked with the National PACE Association on 2016 Pace rate setting guidance were Milliman actuaries.

Proposed Development Approach

The PACE capitation rates shall be structured to identify and adequately provide for the special needs of specific populations. The rates will provide adequate compensation for the services and risk, while limiting DHHS' costs and risks. Federal regulations specify that each state must set a prospective monthly capitation rate that meets the following requirements:

- Must be less than the amount that would otherwise have been paid in the state plan if the participants were not enrolled in the PACE program;
- Must take into account the comparative frailty of the PACE participants; and
- Must be a fixed amount regardless of changes in the participant's health status during the contract period.

The PACE capitation rates can be renegotiated on an annual basis but must be rebased after no more than three years. We work with our state clients to determine an appropriate rate effective period for their PACE program's specific needs.



Rate Categories

Milliman will develop UPL amounts based on historical fee-for-service data for Medicaid enrollees ages 55 and over who are eligible for nursing facility placement. The overall eligible population is generally stratified into rate categories, or rate cells, based on certain rating characteristics that may have an influence on expected member costs. To reflect these inherent population differences, we will follow guidelines outlined in ASOP #12, Risk Classification, and consider stratifying the PACE UPL amounts by:

- **Medicare eligibility:** Developing separate rate categories for those with Medicare eligibility is an almost universal practice. Medicare pays a substantial portion of the costs for enrollees with Medicare eligibility, greatly reducing the cost to Medicaid. We will compare the cost profiles of Medicaid-only individuals compared with dual eligibles receiving full Medicare benefits. We could also review costs for those receiving Medicare Part B only benefits.
- **Medicaid eligibility:** Most dual eligible enrollees are eligible for full Medicaid benefits, but Qualified Medicare Beneficiaries are eligible for Medicare premiums and cost sharing only (and are not eligible for Medicaid benefits). We will review whether stratification of the UPL amounts by Medicaid eligibility is necessary.
- **Age/gender:** We will evaluate the impact of age and gender and the PACE eligible population to determine whether the PACE UPL amounts should be adjusted for a member's age and/or gender. We often find a stratification is warranted to separate the population ages 55 through 65 from the over age 65 population.
- **Geographic region:** We will consider the cost impact for members living in urban versus rural areas. We can also estimate the relative cost for each existing PACE provider's geographic location (typically defined by county).

Development of separate rate categories, each with a different fixed payment amount, allows for more accurate projection of costs.



UPL Development

After the appropriate risk classification characteristics are chosen, we will develop separate UPLs for nursing home residents and HCBS waiver participants. We will project the base fee-for-service data to the rate period for these populations. As Nebraska develops its long term care managed care program, we will integrate the capitation rates from this program into the UPL development.

The UPL development is generally consistent with the capitation rate development process outlined in SOW #1, with the following notable exceptions:

- **Managed Care Adjustments:** The UPL development represents the best estimate for the amount that would otherwise been paid, and therefore no managed care adjustment will be applied, at the context of a risk-based health plan managed care adjustment. To the extent the state has implemented managed care policies within their fee-for-service program, these policies will be reviewed and reflected within the UPL development.
- **Administrative Cost:** Any administrative cost adjustment will be based on historical and projected State of Nebraska administrative cost information. The administrative cost incurred by the PACE organization cannot be considered in the PACE UPL development.

Please see SOW #1 for an in-depth discussion of our capitation rate development methodologies and processes. SOW #1 outlines the following processes necessary for the UPL development, including base data development, base data completion, trend adjustments, and program or policy adjustments.



Adjusting UPL to Final PACE Rates

Once a UPL has been developed, we will blend the UPLs for nursing home residents and HCBS waiver participants by the target institutional / HCBS mix to calculate an overall UPL for each risk classification cohort. Blending of the UPL across institutional and HCBS members provides incentive for the PACE organizations to serve their members in the most efficient setting of care.

The final PACE capitation rates will be developed by applying a savings adjustment to the UPL. This adjustment ensures that the PACE capitation rates will meet the CMS requirement that the rates are

less than the amount that would have otherwise been paid under the state plan. This savings amount will be determined with the following considerations:

- State policy and program objectives;
- Types of populations covered by the PACE program (e.g., types of 1915(c) waivers);
- PACE stakeholders' input;
- CMS guidance;
- Historical PACE rate development norms; and
- Considerations of interdependent UPL development assumptions.

The patient liability amounts will be appropriately reflected within or excluded from the final PACE capitation rates depending on the State's patient liability collection procedures for the PACE program. The total amount received by the PACE provider will be inclusive of any patient liability amounts, which will either be directly collected by the PACE provider or included within the PACE capitation rates.



Stakeholder Review and Feedback

Milliman will submit initial, revised, and final PACE UPL and capitation rate reports. Our report will include a UPL and capitation rate exhibit supporting PACE UPL and rate calculation sheets; the final UPL and PACE capitation rates; and a description of Milliman's PACE UPL and capitation rate development methodology. The report will document the precise adjustment factors utilized in adjusting the base data to a UPL and PACE capitation rates, and will contain all material required by CMS's December 2015 PACE Medicaid Capitation Rate Setting Guide. Milliman takes pride in providing technical reports that can be understood by a wide audience base.

Milliman will also provide DHHS with appropriate presentation material to be used to discuss the PACE UPL and capitation rates with the PACE providers and other key PACE stakeholders. Milliman's presentation material is designed to document the capitation rate development in a transparent manner. Milliman's presentation material will consist of a Microsoft PowerPoint presentation and accompanying material if necessary. The slides will document every aspect of the rate development process from the data summarization and historical data review to assumption selection and final adjustments. The presentation will document the step-by-step process used to develop the capitation rates in a manner that promotes understanding from all parties involved.

Technical Considerations

While the PACE UPL development and capitation rate setting has many similarities to traditional Medicaid capitation rate setting, the unique aspects of the PACE program require careful thought and consideration when developing the PACE capitation rates.

We have outlined the following issues and considerations that we will analyze and work through with the state during the PACE UPL and capitation rate development process.

- Target HCBS / institutional membership mix: PACE capitation rates are highly sensitive to the blend of HCBS and institutionalized membership utilized in the capitation rate development. The membership mix may be based on a proxy population, the actual PACE enrollee experience, or an adjusted mix based on pre-defined targets. The membership mix utilized should reflect an achievable target that holds PACE providers accountable to program goals of serving members in home and community based settings. We can offer our extensive experience developing both PACE and other managed Medicaid LTSS membership mix targets when assisting the state of Nebraska in their PACE rate development.

Target
HCBS/Institutional
membership mix
should reflect an
achievable target.

- PACE rate savings assumptions: An important consideration in the PACE capitation rate development is the upper payment limit (UPL) savings adjustment. CMS requires that the PACE capitation rates are less than the amount that would otherwise have been paid, or UPL. This is generally achieved in PACE capitation rate development with an explicit savings adjustment.

We work closely with our state clients in developing a savings adjustment that is reasonable and attainable for the PACE providers, especially with consideration of other capitation rate development assumptions. For example, states may also choose to increase the UPL savings as an alternative method to explicitly adjusting the target HCBS and institutional membership mix. We work with our state clients to utilize the savings mechanisms that best meet their program goals.

- Relationship to other managed LTSS programs: Over the last decade, the use of managed care for Medicaid LTSS has increased exponentially, both through expansion of PACE programs and other forms of managed care. Careful consideration is needed to coordinate PACE, dual demonstration, and managed LTSS programs that serve overlapping membership. States are currently working through challenges of how key program processes, ranging from member enrollment to rate development, should be operationalized. We have extensive experience working with states that only operate PACE programs and with states that operate an extensive array of managed LTSS program. Key considerations specific to the rate development process are outlined in our proposed development approach.

- Program data collection: As states increase their managed care efforts for LTSS programs, increased analysis of the performance, both from financial and quality perspectives, is being required of PACE programs. We have assisted states in identifying additional opportunities to enhance their PACE data collection processes, including encounter and cost reporting. Because PACE providers are often locally focused and often do not have the resources that a national organization would have, it is important to strategically identify the critical data elements that will need to be collected to monitor and continuously improve the PACE program.

PACE data used to monitor
the program may also help
providers identify best
practices.

- Frequency of rate updates: In adherence to the CMS PACE rate setting guidance released in December 2015, the PACE UPL amounts must be rebased at least every three years. We frequently work with states to develop a plan for updating the PACE rates in accordance to the program goals. For example, larger programs or programs in which the stakeholders are not in agreement on appropriate capitation rates may choose to rebase the PACE UPL and capitation rates annually. Alternatively, certain programs with stakeholders that are satisfied with the current capitation rates or are focusing on reducing administrative costs may choose less frequent updates to the UPL and capitation rate amounts.

Detailed Project Work Plan

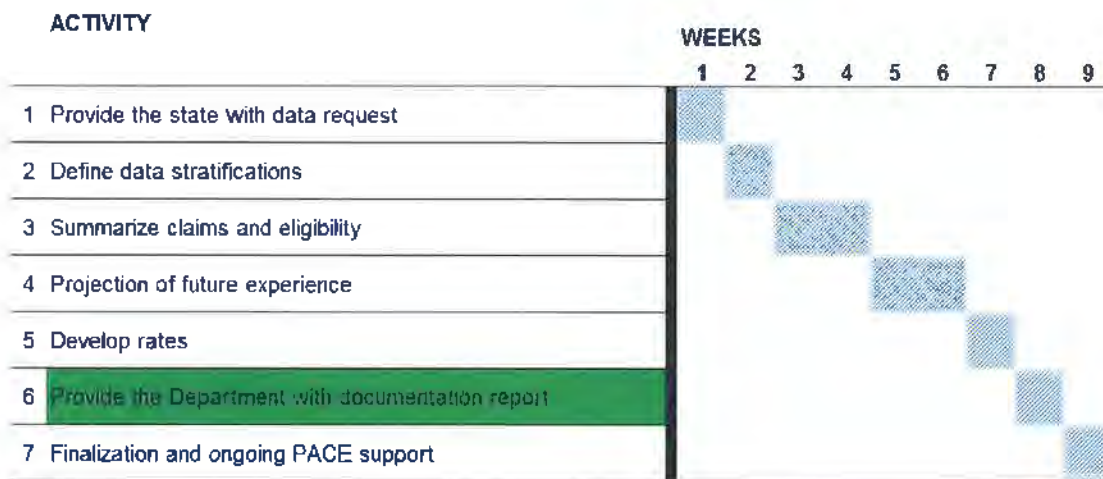
The following provides our proposed project work plan for assisting the state of Nebraska in the development of PACE capitation rates.

Project Flow and Timeline

Program All-Inclusive Care for the Elderly (PACE)

PACE Rate Setting - Project Work Plan

 Plan Duration



Step 1: Provide the Department with data request (Week 1)

Milliman will produce a data request letter to send to the State of Nebraska in order to collect information necessary to perform the PACE capitation rate development. This request will include effective dates, claims and eligibility data, and potential program or policy changes.

Step 2: Define data stratifications (Week 2)

Milliman will identify the different eligibility and area groupings for purposes of setting different PACE rates, as discussed in the Proposed Development Approach. The prior PACE rate setting stratifications will be reviewed for reasonableness, and any proposed adjustments will be discussed with the state.

Step 3: Summarize claims and eligibility (Weeks 3-4)

Once Milliman has received the requested information, we will summarize the provided base data to establish historical experience as the basis for future costs. Milliman will develop utilization per 1,000, cost per service, and per member per month costs for the provided data. Based on a review of the data, Milliman will apply appropriate non-claim adjustments and completion factors to create the base period experience. We will review three years of data and choose an appropriate base period to smooth any observed fluctuations.

Step 4: Projection of future experience (Weeks 5-6)

Milliman will review the historical experience and develop historical trends from the summarized data. Milliman will also review trends used for other state of Nebraska projects and incorporate as necessary. Milliman will review the known program, eligibility, reimbursement changes and other items that have impacted the PACE program since the end of the base period data. These changes will be applied to the base data to develop UPL estimates.

Step 5: Develop rates (Week 7)

Following the development of the UPL, Milliman will adjust the UPL to the final PACE rates as discussed in the Proposed Development Approach, which will include blending of the institutional and HCBS members and a savings adjustment.

Step 6: Provide the Department with documentation report (Week 8)

Milliman will provide a written report to the Department that documents the process, assumptions, and proposed UPL and PACE capitation rates.

Step 7: Finalization and ongoing PACE support (Week 9)

Following the delivery of the PACE documentation report, we will work with the state of Nebraska to make any adjustment to the methodology and report as necessary to finalize the PACE capitation rates. We will also work with the state to develop presentation materials to communicate the proposed PACE capitation rates with key stakeholders. We will continue to assist the state's PACE program throughout the year for questions on the PACE rate development methodology from CMS and other interested parties.

Staffing

The team of consultants and analysts proposed under this scope of work have extensive experience with developing PACE capitation rates, in addition to a broad array of experience across Medicaid managed care programs and the healthcare industry. The organizational structure outlined below shows the primary staff that will be dedicated to providing PACE actuarial and consulting services to the Department. The breadth and depth of the expertise of these individuals underscores our commitment to providing the highest quality actuarial and consulting services to the State of Nebraska. **While the services performed under this RFP will be performed by the staff in the Indianapolis office, we have countless resources available to access the intellectual capital generated by our global firm.**

Primary Consulting Actuary

- Robert M. Damler, FSA, MAAA – Principal and Consulting Actuary.

Project Manager

- Christopher T. Pettit, FSA, MAAA – Principal and Consulting Actuary.

Actuarial Support

- Colin R. Gray, FSA, MAAA – Actuary; and
- Jaime M. Fedeler – Actuarial Healthcare Data Analyst.

Resumes for each of the proposed team members are included in Appendix 6.

Deliverables and Due Dates

As outlined above, we anticipate that major project deliverables will include the PACE Medicaid capitation rate development report and presentation materials necessary for the state to present the PACE Medicaid capitation rates to PACE stakeholders. The PACE capitation rates may be developed within eight weeks of initiation, assuming appropriate flow of communications. Following the initial PACE rate development, finalizing the PACE capitation rates and CMS approval will depend on the review process of the state of Nebraska's key stakeholders and CMS.

**SOW 5 – 1115 Waiver
Development and Submission**

SOW 5: 1115 Waiver Development and Submission

The contractor will assist with current and new programs developed and operating under the 1115 demonstrations, 1115 renewals, and/or amendments. The 1115 waiver is for, but not limited to, the delivery of the opioid use disorder and substance use disorder (OUD/SUD) services. The contractor shall assist the Department in the design and submission of 1115 demonstrations that meet the criteria of CMS' OUD/SUD initiative. The 1115 demonstration application must also meet 42 CFR 431.412 requirements.

A Note on the Response Structure

Section V.C of the RFP indicates that the information that should be provided for each proposed service. Additionally, Section VI.A.3 outlines the required structure for the Technical Proposal. Therefore, we have structured our response as follows, to address the requested information:

VI.A.3.a Understanding of the Project Requirements

- Prior experience performing this service for other states or companies of similar size and Medicaid Managed Care enrollment numbers to the State of Nebraska ([Section V.C.c](#));
- Successes achieved, in regards to prior experiences listed above ([Section V.C.d](#));
- Description of challenges present with rate-setting and how bidder addresses each challenge ([Section V.C.e](#));
- Number of years performing the service ([Section V.C.f](#));
- All analysis, findings and/or recommendations are to be in line with current statutory/actuary as it applies to each SOW ([Section V.C.j](#)).

VI.A.3.b Proposed Development Approach

- Methodology for performing the service ([Section V.C.b](#))

VI.A.3.c Technical Considerations

- Any requirements to be provided by the Department ([Section V.C.g](#))

VI.A.3.d Detailed Project Work Plan

- Process, staffing and timeframe ([Section V.C.a](#));
- An estimated timeline for completion of services ([Section V.C.h](#))

VI.A.3.e Deliverables and due dates

Understanding of the Project Requirements

Several key staff in this proposal worked with the states of Alaska, Indiana, Iowa, Kentucky, Michigan, Nebraska, and Ohio on Section 1115 demonstration waiver (1115 waiver) submissions. Additionally, Rob Damler and Christopher Pettit authored a paper on how 1115 waivers were utilized in two states where this vehicle was utilized to expand Medicaid programs⁹. The following table summarizes Milliman's experience in this area.

⁹ <http://www.milliman.com/uploadedFiles/insight/2015/medicaid-expansion.pdf>

State	Years of Experience
Alaska	2 years of experience
Indiana	12 years of experience
Kentucky	2 years of experience
Michigan	4 years of experience
Nebraska	1 year of experience
Ohio	1 year of experience

Below are some highlights of our experience in this area.

- **Alaska:** Milliman helped Alaska design an expansion strategy, combined with a comprehensive package of reforms. The reforms build on a foundation of enhanced primary care, improved access to behavioral health and substance use disorder (SUD) services, and an update to Alaska's health information infrastructure. Payment reforms would shift the delivery system from paying for volume to paying for value.

In addition to integrated care services, one of the key additions in the 1115 Waiver was an enhanced SUD program. The SUD program was developed using ASAM criteria, and adds IMDs, long-term residential treatment facilities other than IMDs, medication-assisted treatment, and other enhanced services. Both the payment and delivery system reforms are proposed as part of a Medicaid 1115 waiver, but have the potential to improve care across multiple markets.

- **Indiana:** The Healthy Indiana Plan (HIP) may be the most innovative waiver approved to date. It was the first approved 1115 waiver to support shared responsibility by incorporating member contributions, a high deductible consumer-driven health plan paired with a POWER account (similar to a health savings account), and a number of incentives designed to reward members for adopting healthy behaviors and making value conscious decisions. These include no-cost preventive care, \$25 charges for non-emergency use of the emergency department, and the opportunity to reduce the next year's premiums by avoiding unnecessary care.

HIP was designed to provide extra support for medically frail individuals with income up to 138% of the federal poverty limit (FPL). These individuals are identified efficiently, often using claims data, and are provided with any necessary help such as enhanced care coordination or mental health and substance abuse services. Enrolling these members in HIP and managing their complex conditions reduced pressure these high cost individuals would otherwise have placed on Indiana's federally facilitated marketplace (FFM).

State policy makers have been able to leverage HIP to stabilize premiums on Indiana's FFM; average annual premiums in Indiana have been relatively stable: \$5,300 in 2015, \$5,000 in 2016, and \$5,200 in 2017. During 2015, many HIV positive individuals receiving care through the Ryan White program were transitioned to HIP. Soon after, Indiana suffered an HIV outbreak, and affected eligible individuals were also transitioned to HIP. HIP also enrolls recently incarcerated individuals and supports many individuals with behavioral health or substance abuse disorders.

In Indiana, we helped design and implement the initial Healthy Indiana Plan (HIP), effective January 1, 2008. In the summer of 2014, we supported the drafting of Indiana's HIP 2.0 proposal to extend the Healthy Indiana Plan to a broader low-income population under a Section 1115 demonstration. This proposal was approved by CMS in January 2015.

We also helped Indiana with the HIP waiver extension, which was approved by CMS in January 2018. The most significant changes included the addition of a SUD IMD program and work requirements. The SUD program was developed using ASAM criteria, and adds IMDs, long-term residential treatment facilities other than IMDs, opioid treatment programs, and other enhanced services. The budget neutrality only reflects the IMD and long-term residential treatment programs, as other enhanced services do not require 1115 waiver approval and may be implemented through state plan amendment authority.

- **Kentucky:** We provide ongoing assistance to the Commonwealth on the Kentucky HEALTH 1115 demonstration waiver (KY HEALTH). We were engaged to develop the budget neutrality response for the Section 1115 demonstration waiver application. In this role, we provide guidance and subject matter expertise related to budgetary impacts of proposed KY HEALTH policy options. We produced the required budget neutrality worksheet and corresponding narrative that was included in the waiver. In January 2018, CMS approved the KY HEALTH demonstration.
- **Michigan:** The State implemented the ACA's Medicaid expansion by amending a previously approved 1115 waiver. The Section 1115 Healthy Michigan demonstration waiver assesses copayments on all members, regardless of income level, based on their previous six months of claims experience. Certain beneficiaries are still excluded from the copay requirement (e.g., pregnant women), in compliance with Medicaid regulations; however, others can reduce their cost sharing responsibility through the completion of healthy behaviors. An additional layer of member cost-sharing was introduced for those over the 100 percent federal poverty level. Members with income above this level are required to contribute 2% of income to a health savings-like account.

We developed all of the related actuarial analyses for the 1115 waiver submission including the capitation rates for the projected population and estimates of the percentage of individuals that may be impacted by the cost-sharing requirements. In addition, our analysis of the estimated financial impact of the required copayments reflected the portion of copayments that may go uncollected, as Healthy Michigan eligibility cannot be terminated for failure to make a copayment. Healthy Michigan was approved by CMS and currently has more than 650,000 enrollees.

In addition, we supported the state in the transition of their behavioral health 1915 (b/c) Waiver managed care program to an 1115 demonstration Waiver. We provided budget impacts of policy options and developed the budget neutrality response for the Section 1115 demonstration waiver application. One of the key additions in the 1115 Waiver was an enhanced SUD program following ASAM criteria, including SUD IMD facilities.

- **Nebraska:** Proposed legislation in Nebraska (LB 887) involved several design elements integrating markets and supporting beneficiary independence. These components included a premium support program for individuals with access to ESI, FFM coverage for individuals between 100% FPL and 138% FPL, and monthly contributions of 2% of income for those with income at or above 50% FPL. The legislation also adopted value-based payments, patient-centered medical homes, and identification and support for super-utilizers. LB 887 failed to pass during the 2014 legislative session and was indefinitely postponed. We also provided analyses for LB 472. The bill did not pass out of committee.

The following section showcases our ability to leverage our extensive 1115 waiver experience to fully and efficiently support submissions, while providing DHHS with a full array of options to address any challenge.

Key Successes and Challenges

We guide our clients throughout the 1115 waiver submission and monitoring process. Our successful experience in other states uses a multi-disciplinary team of actuaries, policy consultants, and clinicians (doctors, nurses, and pharmacists) to provide the comprehensive support needed to help the Department move initiatives forward.

Milliman can suggest an implementation strategy, assist with drafting 1115 demonstration waiver applications, and provide updated fiscal impact estimates at any stage of the process. We highlight a few specific examples below, to demonstrate our contributions to success. At the same time, we recognize that unusual challenges may arise. For each challenge, we also provide a description of how we work to avoid these situations and mitigate the impact, should they occur.

Success: Demonstrations testing comprehensive reform

In the past few years, CMS has demonstrated new flexibility in granting states approval to implement Section 1115 demonstrations, allowing features not previously permitted. We have helped states use 1115 waivers to not only expand coverage, but to enact comprehensive Medicaid reform. We have helped states design new programs that stretch the boundaries of federal flexibility, incorporating private market principles to design benefits and cost-sharing which create high quality, cost-effective, and efficient programs. These programs have introduced new policies that create incentives to encourage positive behaviors amongst participants and consequences to deter undesired behaviors all within the Medicaid framework.

We have become a trusted advisor to states by helping design and implement multiple Section 1115 demonstration waiver applications that have received CMS approval, including:

- The State of Indiana's 1115 waiver filing for Healthy Indiana Plan (HIP 2.0), which extended the Healthy Indiana Plan to the Medicaid expansion population (approved by CMS in January 2015, and approved for extension in January 2018). The extension also provides for enhanced options for treatment of SUD across all populations;
- The State of Kentucky's recently submitted Kentucky HEALTH 1115 demonstration waiver (KY HEALTH) (approved by CMS in January 2018); and
- The State of Michigan's Healthy Michigan Plan, which provided coverage to the Medicaid expansion population (approved by CMS in December 2014). An enhanced SUD program was added to the waiver under the most recent approval.

We have become a trusted advisor to states wishing to incorporate private market principles in benefit design.

In all of these states, we provided guidance and subject matter expertise related to budgetary impacts of proposed policy options and produced the required budget neutrality worksheet and corresponding narrative to be included in the waiver.

Success: Enhanced substance abuse services and more flexibility to use IMDs

In the updated Medicaid managed care regulations, CMS provided states with the unprecedented option to make limited use of Institutions of Mental Disease (IMDs) with federal matching funding. In combination with the current high demand for substance use disorder treatment, many states are seeking additional flexibility to design programs to address their specific needs, we have helped states add a range of new benefits for their Medicaid populations such as opioid treatment programs and enhanced assessments and service coordination. Most of the 1115 waiver submissions request authority to enhance services that are difficult to authorize under the state plan, most commonly expanding SUD treatment options in IMDs and other lower intensity residential settings, or adding social services that help members find housing and other supports.

We have used 1115 waiver authority to enhance SUD supports in many states

Regulations and Actuarial Standards of Practice

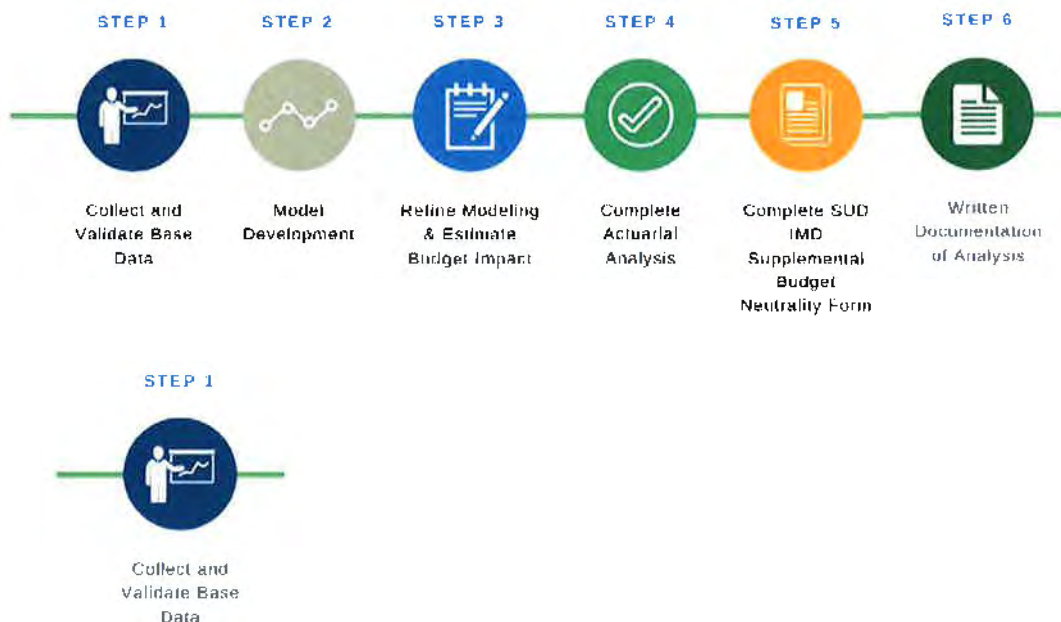
Milliman understands CMS requirements related to budget neutrality for Section 1115 demonstration programs. As part of our work with other states, we have had the opportunity to participate on CMS

technical assistance (TA) calls, ask questions, raise issues that CMS might not have previously considered, and receive templates and guidance from CMS. For example, we received prototype SUD/IMD budget neutrality templates from CMS in the context of multiple state submissions, providing an excellent opportunity to understand CMS' underlying principles and objectives.

While an accredited actuary is not required to prepare budget neutrality documentation, the project is an excellent fit for an actuarial skill set. Actuaries are trained in the delicate skills of projection and assumption development, and in selecting the appropriate data to use for analyses. These tasks require experience and actuarial judgement, in which we are guided and bound by Actuarial Standards of Practice (ASOP), including on topics such as data quality, Medicaid managed care capitation rate development, risk adjustment, risk classification, credibility procedures, and actuarial communications.

Proposed Development Approach

The following describes our detailed process for successfully completing each phase of the 1115 waiver process.



Compile baseline data required for preparation of the 1115

Compiling the baseline data and validating that this experience is a complete and accurate representation of the program is essential to the overall project success because this information will serve as the foundation for all other analyses supporting the 1115 waiver application.

All actuarial analyses rely on complete and accurate healthcare claims, eligibility, and administrative data. Upon completing our data collection and validation, we will review the data quality of all information warehoused by Milliman on behalf of DHHS. We will acquire a full understanding of the data available to us, working with the DHHS data team to evaluate each data component.

Following the initial task of data transfer and validation, we will use the experience data to develop actuarial cost models for the claims experience. Actuarial models are the cornerstone of healthcare data analytics. These summaries illustrate claims experience in a format that allows analysis by specific category of service, normalized for the size of the population, in order to make the data comparable

between sources. For example, Medicaid behavioral health pharmacy utilization (or any other service category) could be compared with other states or between two different cohorts of the Nebraska Medicaid population. Actuarial models are built to summarize the following information: member months, utilization rates per 1,000 members, cost per unit of service, and per member per month (PMPM) claim costs.

A set of actuarial models will be developed separately for each DHHS Medicaid eligibility group (MEG). Each of these populations is unique and will be treated separately, though we will compare information among the various programs to validate relativities in verifying reasonability of the experience data.

The budget neutrality form of the Section 1115 demonstration waiver application generally requires five full years of experience data. We will gather this information and review the data for changes over time and verify reasonability of the data received. In addition to reviewing annual cost models as described above, we would review monthly actuarial cost model metrics by population and major category of service for consistency on a month-to-month basis. The populations and major categories of service will be defined by the splits utilized in the proposed payment methodologies to be utilized in the 1115 waiver.

The development of actuarial cost models will be an ongoing process throughout the project lifespan. As changes to the potential payment methodologies are proposed, refinements to the actuarial cost models may need to be made and re-presented to the development teams.



Model development in collaboration with 1115 Waiver development teams

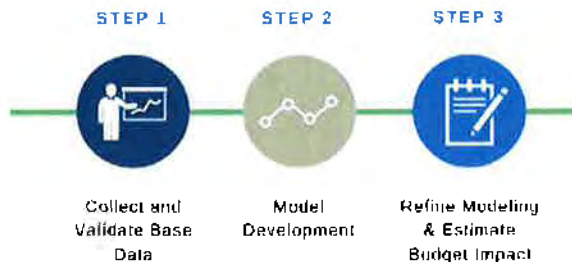
The development of an 1115 Waiver requires collaboration across many teams. We have extensive experience in providing consulting support and analytics to ensure that key policy makers can make informed decisions. Milliman will build a strong foundation of understanding of the current program, its structure, benefits offered, and populations served. It is important that we understand the history of the program, perceptions of the program held by various stakeholders, and components of the program that DHHS would like to address or investigate.

We will work with the development teams to fully understand each of the proposed policy and program changes, including but not limited to the following:

- the populations or sub-populations that would be affected;
- the exposure basis used to develop the projection (e.g., per member, per recipient, per unit, per episode, etc.);
- the new benefits or changes to payment structures; and
- any other new policy or program changes that need to be modeled.

As we prepare to perform the modeling, we will discuss with DHHS whether Nebraska requires additional fiscal impact estimates beyond those required by CMS as part of budget neutrality. For example, when implementing a comprehensive substance use disorder (SUD) treatment program, many of the proposed policy and program changes may not require 1115 waiver authority, but could be authorized under the current state plan or a state plan amendment. The 1115 waiver authority may only be needed for the IMD or residential treatment portion of the proposed program. Other components

of a proposed SUD program that do not require 1115 waiver authority could include enhanced case management, methadone-based opioid treatment programs, or new assessments intended to determine ASAM criteria or level of need. Because these program changes do not require 1115 waiver approval, CMS will not wish to see the fiscal impact of non-IMD components in budget neutrality exhibits, but the state may wish to understand the estimated cost. Other details that are not required under budget neutrality, but are often of interest to the state may include an estimate of state share portion of program cost and additional administrative cost estimates.



Refine modeling and estimate budget impact

After gaining an understanding of proposed program details, we may need to refine the actuarial cost models initially developed. This may require refining population and/or service definitions. We may also need to develop estimated utilization and costs for any new proposed services. If transition to a value-based payment structure is contemplated as part of an effective program, estimates may be developed to reflect these changes as well. We will work closely with the policy team to reconcile estimates to state expectations.

If required under the proposed program, we will work with DHHS to develop incentive payments, outcomes-based milestone payments, and administrative expense estimates. Outcome-based payments must be appropriate relative to the value created, either in cost savings or quality. Administrative payments should be appropriate relative to the value created by the overall program.

After we have modeled the proposed policy and program changes, we will provide the estimated budgetary impact. This may include several scenarios to understand which combination of populations, criteria, services, and reimbursement will be possible with the appropriated budget.

Throughout the development of 1115 waiver, we will support the development teams in the following manner:

- We will remain active in the process, participating in meetings for the development teams.
- We will present the analysis and consult with the development teams so that they understand the financial impacts of multiple scenarios.
- We will provide further analysis, explanation, and recommendations as necessary.
- We will respond to any questions in a timely manner and develop written analyses when requested to advance the development teams' understanding of the impact from each potential payment methodology being discussed.



Complete the actuarial analysis required for the 1115 budget neutrality projections

We will utilize the following steps to complete the 1115 budget neutrality template:

1. Summarize historical experience (5 years)

Summarizing and understanding the historical experience utilized in the 1115 demonstration is essential. Our process to summarize historical experience includes:

- Validation of baseline data
- Development of actuarial cost models
- Providing a report of the baseline experience to the 1115 Waiver development teams

Populations and categories of service used in the actuarial cost models should be selected for consistency with proposed policy and program changes.

2. Development of trend rates without and with waiver

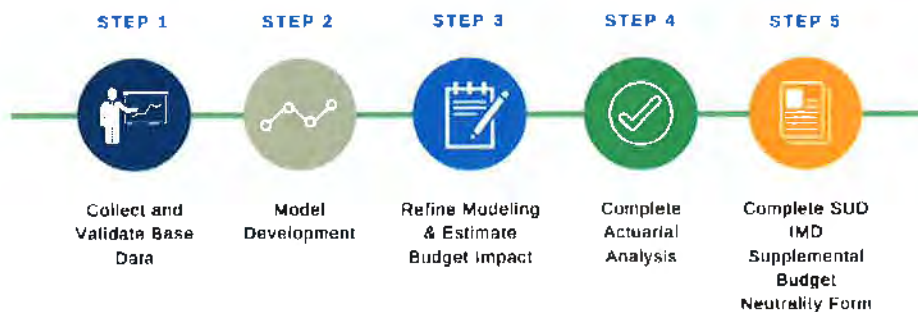
Selection of Medicaid unit cost and utilization trends used in developing rates and projecting expenditures relies heavily on actuarial judgment, supported by historical data analysis, state-specific program and fee fluctuations, national Medicaid information, and information from similar Medicaid managed care programs in other states. Certain populations and services require special attention in developing trend rates. We have extensive experience developing trend rates for all the population types and benefits covered by Nebraska's Medicaid program, as well as benefits that may become covered under future initiatives.

3. Modeling new populations or services

We have extensive experience developing the cost and utilization estimates from new populations or services. In our experience, this has been a collaborative process between the state program team, the actuarial team, and other key stakeholders. Often, this process involves multiple iterations of the development cycle provided below.



Developing estimates for new program expenditures usually requires a combination of historical state program data and information from other sources. For substance abuse programs, this might include published reports from the Substance Abuse and Mental Health Services Administration (SAMHSA) or the National Institute of Mental Health (NIMH). We have often also received useful information from state clinicians and used state non-Medicaid program data.



Complete the SUD IMD supplemental budget neutrality form

CMS is now requiring states to submit a supplemental budget neutrality form for 1115 Waivers where institutions for mental disease (IMD) are included as a new eligible facility to treat beneficiaries with a substance abuse disorder (SUD). This supplemental budget neutrality form is intended to capture the number of months Medicaid beneficiaries receive SUD treatment via an IMD facility as well as the corresponding cost to deliver the services.

We have extensive experience working with states to understand historical utilization of IMD facilities covered by Medicaid, grant funding, or other funding. Utilization of these facilities will be covered under Medicaid under the 1115 Waiver. This includes modeling the expansion of facilities projected to be IMD under the Waiver as well as projecting IMD usage and cost. Additionally, we have experience completing the SUD IMD supplemental budget neutrality form for an 1115 Waiver.



Written documentation of analysis

As with all actuarial analyses, results must be clearly documented to support transparency and be appropriate for the intended audience to understand. In addition to results, the report must disclose data used, development of assumptions, and the methodology utilized to achieve the results, including the steps, adjustments, and formulas utilized to summarize the baseline experience data. Our reports will adhere to the actuarial standard of practice (ASOP) No. 41, *Actuarial Communications*, as adopted by the Actuarial Standards Board. We are committed to providing the highest quality documentation of the analyses performed so that all stakeholders can not only understand the work but also use that information to make key business decisions.

Technical Considerations

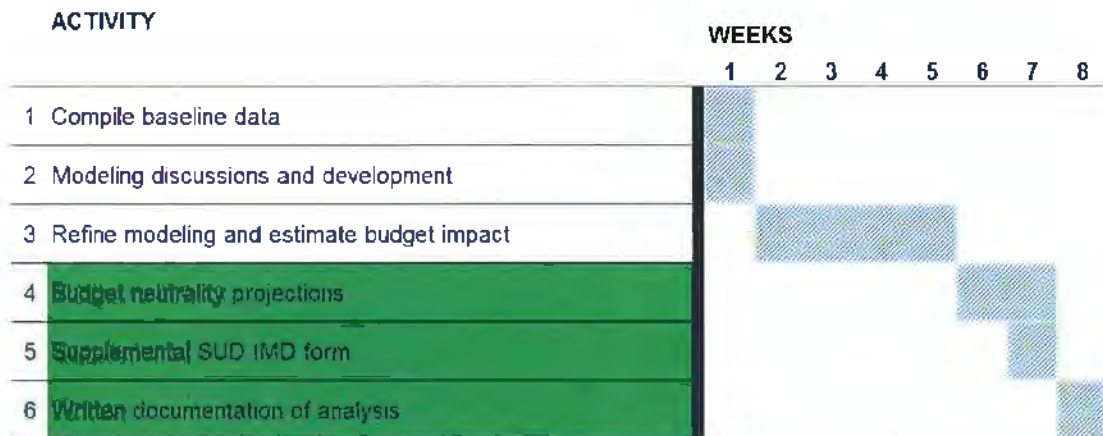
We anticipate the Department will provide policy leadership and historical data to be used in analyses. As part of policy leadership, we will request to understand the goals of the program, desired timeline, and a proposed course of action, in sufficient detail for modeling. Milliman could assist the Department with analyses that may help determine program details, and if desired, we could provide options for implementation. Historical data is needed for the budget neutrality demonstration and other analyses. For budget neutrality purposes, five years of recent Medicaid claims and enrollment data are required.

Detailed Project Work Plan

The following provides our proposed project work plan for assisting the state of Nebraska in the development of 1115 waiver budget neutrality exhibits.

*Project Flow and Timeline***1115 Waiver***1115 Waiver Development - Project Work Plan*

Plan Duration



We have allocated four weeks for Step 3; however, in less complex cases, and where there are no concerns about the net budget impact, this step may require only 2 weeks. Multiple iterations of policy and program adjustments are often required to develop a model and budget impact that is acceptable to all stakeholders.

Step 1: Compile baseline data (Week 1)

Milliman will produce a data request letter to send to the state of Nebraska in order to collect five years of historical information needed for the budget neutrality demonstration. This request will include effective dates, claims and eligibility data, and potential program or policy changes.

Step 2: Modeling discussions and development (Week 1)

Milliman will review the draft waiver submission, and discuss proposed 1115 policy and program changes with the state development teams. We will develop a detailed work plan, including proposed methodology for projecting enrollment, utilization, or cost changes, as well as any new services.

The discussion will also cover alternative scenarios or sensitivity testing the state would like to model. We will also discuss budget information the state needs that may extend beyond CMS 1115 waiver budget neutrality requirements, such as related program changes that do not require 1115 waiver authority or information on administrative costs of the state share of program change costs.

Step 3: Refine modeling and estimate budget impact (Weeks 2-5)

Once we have received the requested information, we will summarize the provided base data to establish historical experience as the basis for future costs. Milliman will develop utilization per 1,000, cost per service, and per member per month costs for the provided data. Based on a review of the data, Milliman will apply appropriate adjustments and completion factors to create the base period experience. Trend factors with and without waiver will be developed and applied separately to enrollment, utilization, and cost per service.

Policy and program changes will be modeled in the with waiver projections. This may be done under several scenarios, with fiscal impact information provided. Results will be shared with the state, discussed, and compared with expectations.

Especially with regard to new services or program changes, it is not unusual to require a second round of modeling. This may involve a few new scenarios, updates to assumptions, and/or changes to program parameters.

Step 4: Budget neutrality projections (Weeks 6-7)

After the final scenario is selected and approved, it will be used to prepare budget neutrality projections for the 1115 waiver submission. These projections are usually shared with CMS prior to formal submission, in order ask questions and to be sure CMS has no concerns. CMS will require changes to trends that may exceed the President's budget trend, and is generally forthcoming about asking questions and providing informal guidance.

Step 5: Supplemental SUD IMD form (Week 7)

As budget neutrality projections are being developed, we will also develop projections for SUD IMD utilization and cost. We will ensure these conform to CMS guidelines, for example are limited to populations aged 21 through 64, and include all expenditures (not just IMD expenditures) during the month the recipient uses an IMD. We will work with the Department to make sure projection assumptions are appropriate for the State. This may include, for example, estimation of unmet demand for services that may already be available through inpatient psychiatric facilities with limited beds, or demand and provider supply for new services that may become available under the waiver.

These projections may also be shared with CMS prior to formal submission.

Step 6: Written documentation of analysis (Week 8)

Milliman will provide a written report to the Department that documents the process, assumptions, and data used to develop budget neutrality projections and exhibits.

Following the delivery of the report, we will work with the Department to make any requested adjustments to the methodology and report through the life of the waiver. We are also available to assist with quarterly monitoring of budget neutrality.

Staffing

The team of consultants and analysts proposed under this scope of work have extensive experience with developing 1115 demonstration submission, in addition to a broad array of experience across Medicaid managed care programs and the healthcare industry. The organizational structure outlined below shows the primary staff that will be dedicated to providing 1115 waiver actuarial and consulting services to the Department. The breadth and depth of the expertise of these individuals underscores our commitment to providing the highest quality actuarial and consulting services to the State of Nebraska. **While the services performed under this RFP will be performed by the staff in the Indianapolis office, we have countless resources available to access the intellectual capital generated by our global firm.**

Primary Consulting Actuary

- Robert M. Damler, FSA, MAAA – Principal and Consulting Actuary.

Project Manager

- Christopher T. Pettit, FSA, MAAA – Principal and Consulting Actuary.

Actuarial Support

- Jeremy A. Cunningham, FSA, MAAA – Consulting Actuary; and
- Jaime M. Fedeler – Actuarial Healthcare Data Analyst.

Resumes for each of the proposed team members are included in Appendix 6.

Deliverables and Due Dates

As outlined above, we anticipate the primary project deliverable will be the 1115 waiver budget neutrality exhibits and documentation required by CMS, along with related fiscal impact estimates for the state. These may be developed within eight weeks of receipt of historical data, based on proposed program parameters. We will also work with the state to update projections as needed in the course of internal state discussions or negotiations with CMS.

SOW 6: Dental Capitation Rate Setting

The purpose of this SOW is to secure Actuarial and Consulting Services to set a rate range of high/mid/low full risk capitation rates based on factual data and trends in pricing and certified as such by the actuary for the Dental Benefits Managed Care program.

The capitation rate setting activity can be expected to occur each state fiscal year and may be additionally required due to changes resulting in Federal and/or State requirements, program changes or changes in coverage.

Activities related to capitation rate setting include but are not limited to:

- a. *Capitation Rate Methodology Development and Determination*
- b. *Develop Dental Benefit Manager (DBM) cohorts and capitation rates, using a variety of parameters, including but not limited to, recipients' age, gender, category of eligibility, level of care, and geographic location;*
- c. *Develop a risk adjustment methodology; and*
- d. *Develop capitation rates that are actuarially sound.*
1. *Rate Data Analysis and Manipulation:*
 - a. *Analyze the financial statement data of managed care plans with focus on relevant issues affecting capitation rate development;*
 - b. *Analyze any programmatic changes that will be effective in the state fiscal year and utilize the data to calculate adjustment factors to be applied to the existing capitation rate ranges, as applicable;*
 - c. *Analyze dental service utilization and cost profile patterns by category of service for all DBM rating cohorts;*
 - d. *Provide technical assistance in the evaluation of individual DBMs, including areas such as IBNR claims adjustments, administrative overhead, care management overhead, and appropriateness of dental costs incurred; and*
 - e. *Analyze inflation, economic, and health related trends;*
2. *Interim Reporting and Other Deliverables for Rate Setting Functions:*
 - a. *Participate in periodic meetings with Department staff to discuss the parameters, priorities, methodology, timelines, and ongoing results of capitation rate development in each rate cycle;*
 - b. *Provide documents and data, as directed by Department staff, to discuss at these meetings;*
 - c. *Provide project management staff and project/timeline updates for all tasks associated with the capitation rate setting process;*
 - d. *Work collaboratively with Department staff to improve the accuracy and efficiency of the existing data sources and new data sources used for capitation rate development;*
 - e. *Work collaboratively with Department staff and other Department vendors to improve the accuracy and efficiency of capitation rate development methodologies;*
 - f. *Provide the Department with exhibits, reports, and calculations in the format(s) specified by the Department, including all formulae, databases, data sets, analyses, and documents relevant to the capitation rate setting process;*
 - g. *Develop work plans for rates to be determined including milestones for completion;*
 - h. *Meet work plan milestones and timelines as agreed upon with the Department,*
 - i. *Provide staff training in methodologies used to develop rates; and*
 - j. *Develop or assist in development of rate methodology for any new program(s) that may be implemented during the contract period;*
3. *Dental Capitation Rate Finalization:*
 - a. *Produce an actuarial memorandum that provides a detailed description of the methodology for developing the capitation rates along with all actuarial assumptions made and all other data, and materials used in the development of rates;*
 - b. *Certify that the rates comply with all requirements for managed care rate setting as described in the Balanced Budget Act (BBA) of 1997 including attestations of actuarial soundness and certification of plan rates in accordance to the BBA;*
 - c. *Provide actuarial certification as to the soundness of the rates along with all associated exhibits supporting the development of capitation rates*

- d. Provide necessary certification to meet the requirements of the CMS rate setting consultation guide;
- e. Prepare all presentation material, attend and participate in DBM meetings as requested to promote approved recommendations.
- f. Attend, participate, and provide support in the Department's rate setting discussions and meetings with CMS.
- g. Submit final rates and final rate exhibits 150 days or 5 months prior to their effective date.

A Note on the Response Structure

Section V.C of the RFP indicates that the information that should be provided for each proposed service. Additionally, Section VI.A.3 outlines the required structure for the Technical Proposal. Therefore, we have structured our response as follows, to address the requested information:

VI.A.3.a Understanding of the Project Requirements

- Prior experience performing this service for other states or companies of similar size and Medicaid Managed Care enrollment numbers to the State of Nebraska (Section V.C.c).
- Successes achieved, in regards to prior experiences listed above (Section V.C.d);
- Description of challenges present with rate-setting and how bidder addresses each challenge (Section V.C.e);
- Number of years performing the service (Section V.C.f);
- All analysis, findings and/or recommendations are to be in line with current statutory/actuary as it applies to each SOW (Section V.C.j).

VI.A.3.b Proposed Development Approach

- Methodology for performing the service (Section V.C.b)

VI.A.3.c Technical Considerations

- Any requirements to be provided by the Department (Section V.C.g)

VI.A.3.d Detailed Project Work Plan

- Process, staffing and timeframe (Section V.C.a);
- An estimated timeline for completion of services (Section V.C.h)

VI.A.3.e Deliverables and due dates

Understanding of the Project Requirements

Milliman has extensive experience establishing capitation rates for managed care dental programs and fully understands the dental capitation rate setting process and all the requirements entailed therein. **The Milliman Medicaid Consulting Group has been developing capitation rates for several Medicaid managed care dental programs over the course of our state agency contracts.** While dental services are not covered by the managed care program for all of our state Medicaid agency clients, we have performed all of the dental capitation rate activities outlined in this scope of work for each of the state Medicaid agency clients where we are the certifying actuary and dental services are covered by a managed care program.

The Indianapolis office is currently the state's actuary for five Medicaid agencies (Illinois, Indiana, Michigan, Ohio, and South Carolina). Each of these states cover some portion of their dental benefit for certain populations in their managed care program, although each state is unique in its approach to its strategy for managed care coverage of the dental benefit. For example, we have worked with state clients who integrate their dental managed care benefit with the medical managed care program and other state clients that offer coverage through a separate dental managed care program similar to the approach in Nebraska. In addition

to these Medicaid clients, the Milliman Indianapolis office provides actuarial consulting services to a wide array of healthcare organizations including DBMs. Although there are many qualified actuarial firms, we feel that no firm can match the combination of our experience and client service.

Although dental services are often a covered service, the coverage of dental services through a managed care program is not often the same across states. Some of the differing characteristics of the managed care programs for dental services revolves around the members eligible to receive those services (children versus adults) and the types of services covered in the managed care benefit (all-inclusive versus preventive/diagnostic). Our extensive experience with Medicaid programs as a whole enables us to take a comprehensive view of the managed care and fee-for-service delivery systems and consider any relationships between these care delivery sources when developing the managed care capitation rate.

Specific to dental managed care capitation rate setting, we will leverage our experience with various state Medicaid programs to provide the State of Nebraska with a high quality and efficient work product to reflect the best practices of dental managed care programs across state Medicaid agencies related to the following goals for managed care programs (the triple aim):

- Reducing costs for delivering necessary dental care to enrollees;
- Assuring access for enrollees to Medicaid covered dental services; and
- Maintaining quality of dental care with an emphasis on prevention.

Each of the requirements for this scope of work are listed below along with our experience. We also provide consulting services to dental managed care organizations who operate outside of the states where we are the certifying actuary. This insight helps us to understand the financial considerations and operations of the DBMs that do participate in the managed care program for which we establish capitation rates.

Key Successes and Challenges

Milliman has helped a number of state Medicaid agencies achieve success through its dental capitation rate setting consulting services. We highlight a few specific examples below to demonstrate how our approach will contribute to the success of the State of Nebraska's Medicaid program. At the same time, we recognize that dental capitation rate development is a complex task, and we also provide some examples of challenges that may arise during the process. For each challenge, we also provide a description of how we work to avoid these situations and mitigate the impact, should they occur.

Success: Dental Capitation Rate Development

The dental programs that Milliman has assisted its state clients with include established dental managed care programs, programs converting fee-for-service dental benefits to managed care, and programs introducing a new dental benefit under managed care. We have additionally supported our states in providing strategic implementations of dental managed care, such as covering the dental benefit for pregnant women as a part of a maternity kick payment. Because dental is an optional Medicaid benefit for adults, our state clients have very different goals and approaches to dental services coverage. Over the course of our relationship with these states, our capitation rate development analyses have supported the state-specific goals and policies.

As discussed in our response to SOW 1 (Capitation Rate Setting) our capitation rate certification reports are comprehensive and focus on documentation transparency. In the same way that it is critical to document the development of key assumptions, data adjustments, and other factors in the rate setting process for acute medical services, similar transparency must be attributed to the dental capitation rate development process as well. Although dental benefits often require less scrutiny due to the smaller variances in member cost and lower utilization and constitute a smaller component of the overall managed care program, the importance placed upon the certification process of these benefits is no less intensive than our process for the larger managed care program. Based on our regular communication with CMS officials and participation in leading industry events, we are familiar with the documentation requirements for key assumptions in the rate setting process. Furthermore, we have been committed to a level of transparency in our documentation reports that are structured according to the applicable Medicaid Managed Care

Rate Development Guide such that the implementation of the CMS/OACT review process has resulted in a minimal number of questions prior to dental capitation rate approval. The rate certification reports developed for managed care dental benefits mirrors that of the reports discussed in response to SOW 1 (Capitation Rate Setting).

Another component of the capitation rate documentation process is that we also provide the rate certification report that is delivered to CMS to the participating DBM(s). This gesture fosters a mutually beneficial relationship between the Department and the participating DBM(s) and makes the DBM(s) comfortable with the dental capitation rate setting process. Therefore, not only does our transparent rate development process satisfy CMS requirements, it allows the DBM to fully understand the methodologies and assumptions utilized in the rate development process.

Success: Fee Schedule Development

Coverage of dental benefits is highly dependent upon the fee schedule that is established in the state. Changes in the prescribed fees can have a material impact on the adequacy of the network and ultimate utilization of the benefit. Generally speaking, a lower established fee schedule will result in fewer dental providers accepting Medicaid patients and a low utilization of the dental benefit. Increases to the fee schedule, in particular on preventive and diagnostic services, can lead to a higher penetration for Medicaid beneficiaries and greater access to additional services.

Coverage of dental benefits is highly dependent upon the fee schedule that is established in the state.

We have worked with several of our state Medicaid clients to understand the dental fee schedule and assist in making adjustments to either induce additional utilization or influence practice patterns to alleviate excessive utilization of higher cost services. The fee schedule can be viewed as a lever to allow for adjustments in the managed care dental program. In particular, we have assisted in combining fee schedules for multiple dental programs operating in a state where separate fee schedules had been developed for adult members covered under different eligibility programs. Identifying an equilibrium between the two helped to create more consistent utilization across the populations and assist in correcting problems that were occurring in both programs.

Success: Regulatory Compliance – Waiver Applications

As previously discussed, each state has unique objectives and approaches to dental benefit managed care coverage. We have worked with states in their Medicaid waiver applications to obtain approval to provide the dental benefit in a manner that meets program goals. We have assisted states with completing 1915(b) cost effectiveness waivers to include their dental benefit in managed care (along with other services) as well as the budget neutrality section of 1115 innovation waivers for states to implement new and innovative dental benefit designs. We have assisted states with both the initial application and renewal for 1915(b) and 1115 waivers. Our significant experience in these waiver application and renewals allows us to assist state clients in identifying potential stumbling blocks early in the waiver application process and therefore efficiently obtain waiver approval from CMS.

Challenge: Population Differences

A particular challenge with dental managed care programs is developing proper dental managed care cohorts for purposes of capitation rate payments. In programs like Nebraska's where most populations are covered under the dental managed care program, there may not be a similar alignment of utilization and cost across cohorts as there would be with acute care services. Often times, the development of capitation rates for a dental benefit may consist of multiple populations being combined as one's morbidity may not be a significant variable in establishing differences in dental costs. While certain populations, such as long term care populations, may have materially different cost profiles for medical services, their utilization of dental services may not differ materially from a normal adult. Therefore, it is critical to establish appropriate and reasonable cohorts on which to establish the capitation rates.

Challenge: Durational Analyses

Consistent with acute care medical services, there is potential for pent-up demand when new members, or even new populations, are granted access to the dental benefit. After an initial lag period to allow members to find an accepted dental provider and schedule an appointment, there may be a large upswing in services that can last 6-12 months as follow-up appointments are made and restorative or extraction services are provided. Following this period of increased demand for services, there is often a convergence back to the ultimate utilization. It is critical to identify these changes and be able to anticipate when the turns in utilization will occur.

We have extensive experience working with Medicaid dental programs to help understand this issue and to price for the ebbs and flows accordingly in the rate development process.

Challenge: Valuation of Programmatic Changes

Because dental benefits are optional for adults, we often see dental benefits introduced and terminated as a covered Medicaid benefit depending on our state client's budgetary considerations. Alternatively, states may introduce or remove an annual dental benefit maximum (as in the case of Nebraska). Therefore, capitation rates for dental benefits need be set without robust historical dental claims data specific to the state Medicaid program. We routinely work with our state clients to identify appropriate data sources for capitation rate development to evaluate programmatic changes including but not limited to:

- Introduction/removal of certain dental procedures;
- Introduction/removal of certain populations to the dental managed care program;
- Introduction/removal of dental benefit maximums;
- Evaluation of sensitivity of definitions of medically necessary;
- Changes in access to primary or specialty dental providers;
- Changes in dental fee schedules;
- Evaluation of quality withhold metrics; and
- Implementation or adjustment to dental minimum MLR or risk corridor programs.

To the extent available information from the Department is not appropriate for valuing programmatic changes, we will leverage internal nationwide Medicaid and commercial data sets to develop estimates of the any programmatic changes to the dental managed care program.

Challenge: Minimizing Work Product Errors

Consistent with the oversight that was discussed in our response to SOW 1 (Capitation Rate Setting), we maintain the same level of review in our work across all components of our client's programs. This includes the required levels of peer review and qualifications to send and communicate results.

Regulations and Actuarial Standards of Practice

All CMS regulations and Actuarial Standards of Practices that are applicable to medical benefit capitation rate setting are likewise applicable to dental benefit capitation rate setting. Please see SOW 1 for our discussion of our adherence to and understanding of applicable regulations and Actuarial Standards of Practice. As the approach to developing capitation rates for dental benefits is consistent across these programs, the regulations we adhere to are critical in ensuring appropriate documentation.

In particular, the passage of the CMS regulations in April 2016 removed the certification of rate ranges beginning with contract periods on or after July 1, 2017. Thus, while we will assist the State of Nebraska in developing a range of rates for the dental program, the ultimate rates will be certified as a single set of actuarially sound rates.

Proposed Development Approach

Milliman's Medicaid capitation rate setting methodology for dental benefits follows a standard underlying process, but is customized to each client and population based on local characteristics, DBM market, benefits, and program maturity. Our experience in dental benefit Medicaid rate setting includes coverage of numerous populations for both children and adults. This work has provided us the ability to benchmark DBM managed care efficiency on a population specific basis. Additionally, the proposed Milliman Nebraska Medicaid team has extensive experience in creating capitation rates for new and innovative dental managed care programs.

The RFP outlines three specific main tasks to be performed under SOW 6: Dental Capitation Rate Setting:

1. Rate Data Analysis and Manipulation
2. Interim Reporting and Other Deliverables for Rate Setting Functions
3. Capitation Rate Finalization

This section outlines our proposed development approach for each of these tasks.

1. *Rate Data Analysis and Manipulation*

Our process for developing capitation rates is thorough and in compliance with Actuarial Standards of Practice.

The following graphic outlines the general process that we follow to develop actuarially sound Medicaid dental managed care capitation rates across numerous programs and populations. The general process for developing dental capitation rates is similar to the process outlined in SOW 1, beginning with the dental program's current or rebased base rates and culminating in the final dental capitation rate through the application of material program adjustments. For details on the development of rebased dental capitation rates, please see the response to SOW 7.

We carefully review and document each step of the analysis to allow for a transparent rate development process that fosters the relationship between the State and the contracted DBM. At the conclusion of the feedback cycle with the DBM, we prepare the final rate certification report for submission to CMS for review and approval.



STEP 1



Prospective
Program and
Policy
Adjustments

1. Prospective Program and Policy Adjustments

We will apply adjustments to the base data to normalize for policy or program changes that have occurred or are expected to occur after the base experience period that will impact dental utilization and costs during the rate period. Examples of key types of policy or program changes and relevant considerations for each adjustment include the following.

Provider reimbursement policy changes: We estimate the impact of provider reimbursement changes that occur after the base period by completing a repricing analysis on all base data to the updated fee schedule for the impacted category of service. In addition, utilization adjustments are considered if the reimbursement change is anticipated to have an impact on member or provider behavior during the contract period.

Program changes: Program changes cover a wide variety of services and benefits. Examples of program changes include but are not limited to:

- Removal of benefit limits;
- Expansion or reduction of services;
- Legislative mandates;
- Elimination or reduction of cost sharing; and
- Utilization management changes.

Our analysis is program-specific and may include a review of fee-for-service data or benchmark data, among other analyses.

Population changes: A review of population changes can be a crucial aspect of the capitation rate setting process. In collaboration with the Department, we will review past enrollment processing patterns during the base experience period and compare with current and projected enrollment patterns that may impact the contract period. Given the immaturity of the dental managed care program in Nebraska, it is important to review the population shifts over time and identify changes that could have an impact on rate setting.

Fiscal impact analysis: Prior to implementation, we routinely assist states by providing estimates of the impact of policy and program changes on the estimated dental expenditures. We provide the impact to capitation expenditures as well as to the Medicaid program as a whole. In addition, we typically prepare total impact and state share impact estimates.



2. Managed Care Efficiency Adjustments

Upon review of DBM encounter data and financial report data, we will identify opportunities for potential cost savings. These savings could be placing higher emphasis on utilization of preventive and diagnostic services, or identifying methods to limit the use of higher cost or even emergency services. Such opportunities will be identified by reviewing key service categories to quantify potential managed care efficiencies to control costs and improve dental outcomes. We will also use our experience with developing managed care capitation rates for other Medicaid programs to benchmark experience in Nebraska relative to other states.

The potential for managed care savings must consider the current delivery system's opportunities and limitations in order to determine what is achievable. Achievable savings should be assessed with the following by considering the opportunities that DBMs have to actually enforce prescribed changes and whether the program places any constraints on the activities of the DBMs.

We will work collaboratively with the Department to understand the goals of the dental managed care program as it relates to controlling dental care costs and managing quality of care. Measurement of the progress of the DBM in managing dental care is generally performed through detailed review of the change in dental service utilization over time.

Dental managed care programs generally have a heavy focus on improvement of access to preventive dental services, and it is important to consider the expectations of the dental managed care program when developing prospective dental capitation rates. For example, if the program is expected to result in increased utilization of preventive care services and corresponding reductions in restorative dental services, then these managed care impacts should be considered in the projection of the dental service costs in the rating period.

Impact to Rate Development Process

In order for risk-based managed care to truly reflect a "pay-for-performance" arrangement with the contracted DBM, capitation rates should be developed to reflect achievable levels of utilization and cost efficiency while supporting a high quality of care delivery. A capitation rate development methodology that does not make adjustments to historical experience to reflect any performance deficiencies amongst the contracted DBM would limit the Department's ability to incent future improvement. Through careful review of the dental managed care experience, we will provide the Department with a rate setting process that will:

- Identify deficiencies and achievements in DBM performance during historical experience periods using established data-driven methodologies;
- Document support for managed care efficiency adjustments to the base experience used in the capitation rate development by linking adjustments to specific performance measures; and
- Assist the Department with establishing incentives and contractual measures for DBM performance during future rate periods based on performance benchmarks.



3. Non-Benefit Costs

Non-benefit costs are one of the components of capitation rate setting that is most highly scrutinized by stakeholders. From the Department's perspective, non-benefit expenses reflect program dollars that are not spent on the direct services for Medicaid beneficiaries. From the DBM's perspective, non-benefit expenses reflect the cost of administering a Medicaid managed care dental plan including administrative staffing, basic operational needs, and innovative care management solutions. Non-benefit costs must also allow for a reasonable return on invested capital and risk borne by the DBM. Due to the smaller amount associated with the dental capitation rates, as compared to acute care medical services, the non-benefit expense allowance represents a much smaller dollar amount on a per member per month basis. Thus, while the percentage adjustment may be similar across the two different programs, the amount being paid to the DBMs for performing similar tasks is a lot smaller.

Non-benefit expenses must be managed in a manner that illustrates prudent use of program dollars while providing reasonable allowance for the DBM to provide comprehensive care management to promote positive outcomes for Medicaid beneficiaries in Nebraska. To evaluate the reasonability of non-benefit expenses, we will review the key administrative requirements under the DBM contract and how those requirements have changed from prior rate periods. We will also request detailed reporting on administrative costs from the DBM as part of a DBM survey request.

DBMs that are for-profit entities are subject to a Health Insurance Providers Fee under Section 9010 of the ACA. Under Actuarial Standard of Practice (ASOP) No. 49, actuaries are required to reflect this fee in the capitation rates, and since it is non-deductible for corporate tax purposes, the rates must also reflect the tax impact of the fee. This tax may be reflected either retrospectively or prospectively, depending on the state's preference. Although prospective implementation may be simpler administratively, we will often recommend retrospective implementation in order to minimize the risk of overpayment.

In the process of establishing fair and appropriate rates for the managed care populations in Nebraska, we aim to support the Department in its efforts to increase the efficiency of the Medicaid delivery system. Providing meaningful review and suggestions requires a blend of actuarial and clinical expertise that Milliman is well-positioned to provide. The firm has a proud history of actuaries and clinicians working together and has the expertise – and credibility with the DBMs – to both identify issues and to assist the Department in developing strategies to address them in a responsible and sustainable manner.



4. Final Base Capitation Rate

The application of all retrospective and prospective base data adjustments and non-benefit expense assumptions form the basis of the final base capitation rate. We will work with the Department to develop any withhold amounts, incentive amounts, or risk sharing provisions (discussed further below) to help meet program goals. A capitation rate development documentation report will be provided to stakeholders designated by the Department to facilitate the capitation rate review process. We take pride in the transparency of our dental capitation rate development documentation reports, which will illustrate all factors and calculations applied to the historical base data to develop the final prospective capitation rates.

2. Interim Reporting and Other Deliverables for Rate Setting Functions

In keeping with our commitment to a customized approach and transparent dental capitation rate development analysis, we work with our state Medicaid agency clients to establish deliverables that demonstrate the achievement of key milestones in the dental capitation rate development. The following graphic provides a summary of these interim deliverables, which are aligned with the capitation rate development process, and occur alongside the frequent status meetings we have with the Department:



Interim Deliverable 1: Information Request to the Department

- This sets the stage for the ongoing communication loop with the state during the rate development process
- Provides the opportunity for us to know if there are any changes
- Because of our continuous monitoring of managed care program and ongoing discussions with the state, this information request is generally limited to anticipated changes (e.g., eligibility/benefit carve-ins)
- Smooth transition from monitoring to capitation rate development activities

Interim Deliverable 2: DBM Survey

- Similar to requesting information from the state, we request information from the participating DBMs to help provide additional insight into the data sources we use for the analysis, and to aid in the overall capitation rate development process
- We treat this information with the utmost confidentiality, as we understand that the DBMs are providing proprietary information in many cases.

Interim Deliverable 3: DBM-Specific Base Data Validation Report

- Data validation is a critical component of the process – this is where we spend a considerable amount of time
- Provides plans the opportunity to review the encounter data we have received and perform their own validation activities
- We document the main criteria used to stratify the base data cost models into capitation rate cell, region, and service category groupings
- Main components of the report: Documentation of base data development, capitation rate cell assignment, and service class assignment

Interim Deliverable 4: Capitation Rate Base Data & Methodology Report

- This report documents the formation of the base data that will be utilized as the foundation for the rate development process
- We also outline the capitation rate development process in the methodology report, which is consistent with the proposed development approach documented above.
- We generally provide this report first to the state (at least a week before it is ready for distribution to the DBMs) and schedule time to walk through the report with the state
- Provides the state with ample time to review with us and internally
- Gives the DBMs a summary of the combination of all plans' data

Interim Deliverable 5: Draft Capitation Rate Report

- This report documents the full capitation rate development process, from base data to final capitation rates. Both narrative and quantitative exhibits are provided
- We quantify the impact of every material adjustment at the capitation rate cell level
- Report structure follows the Medicaid Managed Care Consultation Guide
- Consistent with timing of the base data and methodology report, we generally provide this report first to the state (at least a week before it is ready for distribution to the DBMs) and schedule time to walk through the report with the state

Interim Deliverable 6: Draft Capitation Rate Presentation

- In-person presentation to the health plans to walk through the full development of the capitation rate
- We walk through each major capitation rate adjustment and the key assumptions underlying the development of these adjustment factors
- Provides a forum for the health plans to ask questions during the discussion

Interim Deliverable 7: Responses to DBM Feedback

- If the state is agreeable, the DBMs are generally provided with an opportunity after the draft rate presentation to submit questions and/or comments in writing within a specified timeframe. We typically respond to these health plan questions in writing.
- During this time, we also finalize with the state any key programmatic changes anticipated during the contract period
- The completion of this deliverable leads to the preparation of the final capitation rate certification report, which is discussed in the next section

3. *Capitation Rate Finalization*

Following issuance of the interim deliverables described above, we will work with the Department to finalize the rates and submit the certification report to CMS for review and approval. The final deliverables represent the culmination of the rate setting process. As there is generally not a risk adjustment process for dental capitation rates, this step in the process involves back and forth with CMS. If CMS requests further information, we will provide clarifications or supplemental analyses to obtain approval as quickly as possible.



Capitation Rate Finalization Step 1: Final Rate Certification Report

Our certification process is consistent with that detailed in our response to SOW 1. We document the development of the capitation rates for each rate cell and index against the Medicaid Managed Care Consultation Guide published annually by CMS. Our adherence to the guide facilitates the CMS review and approval process, and our reports have been referred to as the gold standard within the industry. We will be actively engaged in the documentation and review process, through participating in calls and meetings as needed and preparation of further analysis, explanation, and recommendations, and we will respond to any questions in a timely manner.

The final certification report represents a documented assurance to the Department, the federal government, and stakeholders that the capitation rate setting process fully follows federal guidelines, including the following assurances:

- The rates have been developed in accordance with generally accepted actuarial principles and practices.
- The capitation rates provide for all reasonable, appropriate, and attainable costs that are required under terms of the contract and for the operation of the DBM for the time period and population covered under the terms of the contract.
- The rate development reflects compliance with all laws, regulations, and other guidance for the Medicaid program, including but not limited to eligibility, benefits, financing, any applicable waiver or demonstration requirements, and program integrity.
- The final capitation rates must be reasonable, and the documentation must be sufficient to demonstrate that the rates comply with applicable law.

From our experience in certifying Medicaid capitation rates in several other states, we are aware of the increasing scrutiny CMS has placed in reviewing submitted actuarial rate certifications. CMS produces an annual Medicaid Managed Care Rate Development Guide, which outlines the information it expects to receive in an actuarial certification report. The following tables summarize the areas of the rate setting process for which CMS has placed increased scrutiny in the rate setting guide and other regulations, and the methodologies we will employ to ensure that our rate setting process for the Department's managed care programs continue to be fully compliant with regulatory standards.

RATE SETTING COMPONENT: DATA

CMS REQUIREMENT

Types of data used;
Document any concerns the actuary had with the data;
Describe any changes in the source base data from the prior rate setting period

MILLIMAN METHODOLOGIES

We have a pre-defined evaluation process to review capitation rate setting data for incompleteness or omissions. This process, along with any data issues that are encountered during the rate setting process, will be documented in our certification letters, along with being verbally communicated to CMS, DBMs, and DHHS personnel.

RATE SETTING COMPONENT: PROJECTED BENEFIT COSTS

CMS REQUIREMENT

Changes in covered benefits, including impact to rates

Trend assumptions by service category, with breakdowns by utilization and unit price

Managed care adjustments

MILLIMAN METHODOLOGIES

To the extent a benefit change is made, we will develop estimates of the estimated cost impact at the service category and rate cell level. Such adjustments will be documented in our rate certification letter.

Trend rates for projected benefit costs will be developed by service category and rate cell, and will be split between utilization and service cost trend. Our documentation of trend rate development will disclose data sources, base time periods, and actuarial projection techniques.

Our managed care adjustment methodology utilizes an objective approach to identify potential areas for efficiency and our assumptions reflect the expectation for the DBMs to reasonably achieve the targets in alignment with the Department's goals for the managed care program. These adjustments are documented in our rate certification letters and associated data books.

RATE SETTING COMPONENT: NON-BENEFIT COSTS**CMS REQUIREMENT**

Description of administrative and care management costs, as well as provisions for cost of capital, risk and contingency margin, underwriting margin, profit margin

MILLIMAN METHODOLOGIES

Dating back to calendar year 2008, we have maintained a database of financial statements for Medicaid MCOs and DBMs. This data provides benchmark information on administrative costs, underwriting margins, medical loss ratios, and risk-based capital levels for Medicaid DBMs, and will be used to evaluate the adequacy and reasonableness of current and projected capitation rates, along with underlying assumptions concerning non-benefit costs. We will also evaluate changes in the administrative requirements for DBMs, changes in DBM enrollment, and other factors that should inform assumptions for administrative costs.

Taxes, fees and assessments

Any taxes, fees, or assessments included in the rates will be documented in a clear and transparent manner. In particular, the ACA's health insurer fee will be incorporated into the capitation rates as appropriate, as the aggregate national fee amount and an insurer's share of the aggregate fee will change on an annual basis. Additionally, as Medicaid health plans have entered the commercial market through the public insurance exchanges, they may become newly subject to the fee if their commercial premium revenue represents more than 20% of their total premium revenue.

RATE SETTING COMPONENT: RISK AND CONTRACTUAL PROVISIONS**CMS REQUIREMENT**

Risk adjustment processes

MILLIMAN METHODOLOGIES

The risk adjustment process will be fully exposed in rate setting certification letters, including the process employed to ensure no data quality issues existed prior to implementing risk adjustment.

Risk mitigation programs

Risk mitigation programs including risk corridors, minimum medical loss ratios, or reinsurance programs will be documented, along with a rationale for why these programs are necessary to limit volatility in DBM expenditures or ensure DHHS purchasing-value.

Incentive or withhold amounts

A description of any incentive or withhold amounts will be included in the certification letter. In the course of the development of any incentive payments to the MCOs, we will work with DHHS to ensure that such incentive payments do not exceed 5% of total MCO revenue to ensure actuarial soundness as required by federal regulations.

RATE SETTING COMPONENT: MEDICAID EXPANSION POPULATIONS (IF APPLICABLE)**CMS REQUIREMENT**

Adjustments for acuity, pent-up demand, and adverse selection;

Identify and changes in data sources;

Describe any risk mitigation strategies

MILLIMAN METHODOLOGIES

We have developed Medicaid expansion rates in several states. The development of these rates was particularly challenging initially, as there were many unknowns concerning enrollment rates and morbidity levels of the eligible population. It is also likely that the utilization and cost patterns of the Medicaid expansion population will be changing as the program matures. We will perform a detailed evaluation of assumptions used in prior rate setting periods to determine if specific assumptions should be modified or removed from the rate setting process. Financial results for each participating DBM will also be evaluated to ensure underwriting and administrative costs are reasonable in relation to industry norms.



Capitation Rate Finalization Step 2: Responses to CMS Questions

After the documentation of capitation rates is submitted to the Department for distribution to CMS and the DBMs, we continue to provide support to the Department in preparing responses to any applicable questions that CMS may ask during their review of the certified capitation rates and accompanying documentation. As a testament to our transparency and thoughtful consideration of each assumption during the capitation rate development analysis, the CMS review process contains only a handful of questions in many cases and rarely continues into a second round of questions.

Technical Considerations

Throughout the process of developing actuarially sound capitation rates, there are several technical considerations that need to be made. The following provides a list of items that Milliman will consider in developing dental capitation rates for the Department:

Rate Data Analysis and Manipulation

- Payment rates should be sufficiently differentiated into actuarial cost models to reflect known variation in per capita costs related to age, gender, and Medicaid eligibility category;
- Appropriate levels of managed care plan administrative costs should be included in the rates, with consideration of Nebraska state laws regarding limitations.
- Consider constraints of local delivery system and DBM policies in establishing dental managed care efficiency targets.
- Methodology changes in the withhold arrangement should be evaluated to assess the amount of the withhold that is reasonably achievable in the context of the capitation rate development.
- Programmatic changes in the Medicaid program between the data and contract periods should be reflected in the rates.

Interim Reporting and Other Deliverables for Rate Setting Functions

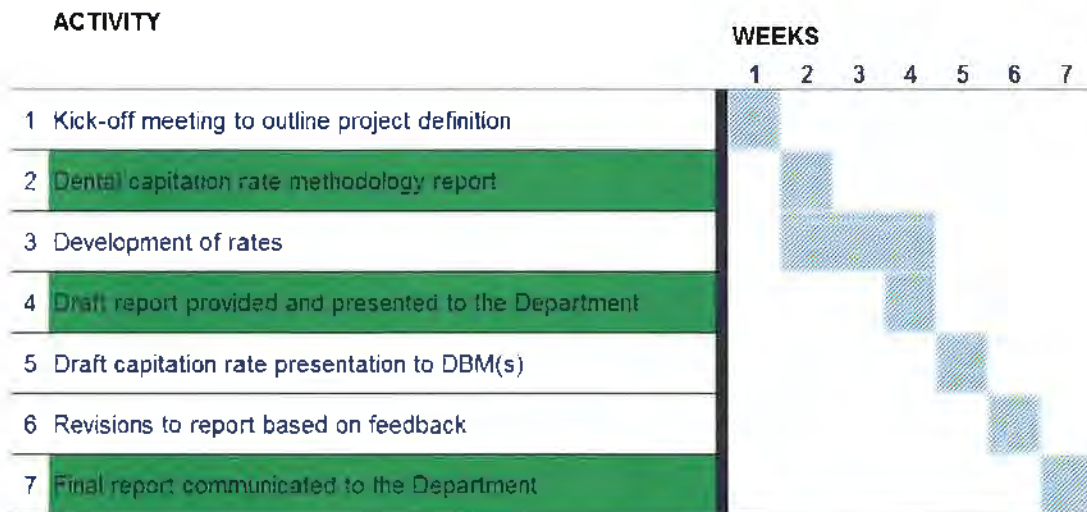
- Effective data visualizations through charts, exhibits, and tables should be utilized in presenting dental capitation rate development methodologies and results.
- It is often helpful to provide DBMs with certain components early in the process, for example base period data summaries (data book), proposed adjustments, assumptions, and planned treatment of policy and program changes. This supports transparency, allows the DBM to voice any concerns earlier in the process, and avoids last minute surprises and delays.
- Providing fiscal impact estimates for proposed program and policy changes early in the process can assist with acquiring the necessary approvals to finalize policy decisions.
- In internal discussions with the State, we will disclose assumptions that have material opportunity for variation around a best estimate (most commonly trend assumptions or managed care efficiency assumptions) and provide an estimate of the sensitivity of the rates to these assumptions. This is information that previously would have been provided as a rate range.
- Frequent touchpoint meetings with the Department should be established to discuss current rate development analytics and anticipated program changes for the capitation rate contract year.

Capitation Rate Finalization

- Documentation should follow the instructions and layout of the CMS Medicaid Managed Care Rate Development Guide.
- Discussion material should include a comparison to prior year rates to allow evaluation of the adequacy of the rates in relation to the DBM prior year financial performance.
- To facilitate an understanding of the rate development process, we typically illustrate reconciliation of the base period data to the final rates, including each material adjustment that was made and the impact of that adjustment on the capitation rates.
- Presentation material for the DBM meeting should provide detailed descriptions of all actuarial assumptions and rate development methodologies to facilitate transparency in the rate development process.
- To the extent applicable, performance withholds should be structured in a manner that incentivizes DBM performance in alignment with program goals. We typically assist our state clients in developing achievable goals for the DBMs based on historical program data.
- Risk corridors and minimum MLR thresholds must be carefully reviewed when implemented in stand-alone managed dental programs, as the non-benefit expense requirements are generally greater than a medical managed care program, as a percentage of revenue.

Detailed Project Work Plan

We have found it is ideal to provide approximately seven weeks for the annual dental capitation rate setting process. Our typical timeline is outlined below. When finalizing the actual timeline with the Department we will do so in a manner such that the final rates are submitted 150 days or 5 months in advance of the effective date. Items highlighted in green shading represent deliverables to the Department. Also, we have found it ideal to set up bi-weekly or weekly check-in and status calls with our state Medicaid agency clients to keep them informed of every step of the process.

*Project Flow and Timeline***Nebraska Medicaid Dental Rate Setting***Dental Capitation Rate Setting - Project Work Plan*
 Plan Duration
**Step 1: Kick-off meeting to outline project definition (Week 1)**

Milliman will meet with the Department to initiate the project. During the kick-off meeting we will discuss expectations for project outcomes and establish guidelines for the workflow process and timeline. This meeting is also an opportunity for the Department and Milliman to take a step back from operations to consider strategic modifications to the reimbursement structure for the dental benefit. The discussion may include adjustments to methodology, covered populations, restructuring of populations or services, or any other structural changes to enhance value of the dental benefit.

After the discussion has led to agreement on the scope for the capitation rate setting project, responsibilities will be clarified and the timeline may be adjusted. To the extent that no major changes are envisioned, the timeline may be condensed. However, when major changes are contemplated, it may be appropriate to allow additional time to inform the DBM and allow for feedback.

Milliman anticipates that most elements of the project will be defined up-front when possible, with interim deliverables and timeframes agreed upon in advance. However, sometimes a change is needed midstream. In these instances, Milliman will work collaboratively with the Department to adjust the processes or direction.

Immediately following the kick-off meeting with Milliman, the Department may wish to have an informational meeting with the DBM to discuss any changes to the reimbursement structure or methodology. Milliman will be available to support, as desired by the Department.

Step 2: Dental capitation rate methodology report (Week 2)

This report documents the main steps of the dental capitation rate development process. We deliver this report to the Department at least a week before distribution to the DBM(s) to allow ample time for Department review and for us to walk through the report with the Department.

Step 3: Development of rates (Weeks 2-4)

Following the summarization of data into an actuarial model, we review utilization experience to further confirm the completeness of the data. The data will be assessed for reliability, accuracy and completeness, and compared with prior data and national norms expected for a comparable population. The encounter data will be compared with financial reports provided by the DBM and checked for consistency. This review will assist Milliman in identifying the experience that will be included or excluded in the rate setting process.

The next step in setting capitation rates is the development and application of adjustments. These often include completion adjustments (for incurred but not reported claims), data smoothing, DBM contracting adjustments, and adjustments to reflect anticipated levels of care management. We will develop a range of managed care adjustments (from high to low) for purposes of the capitation rate calculations.

In addition, we will adjust the experience data for policy and program changes. Often program or policy changes are implemented part way through the base data experience period. In such cases, we will adjust the data to fully reflect the current program. Future program changes may also be anticipated due to normal changes in the Medicaid environment as well as external mandates, such as the Affordable Care Act. We will make appropriate adjustments to reflect cost estimates for enacted changes. Examples of program changes that could potentially impact the Department over the course of this contract include population expansion, fee schedule changes, administrative cost changes, and additional covered services.

We will also analyze historical utilization and cost per service trends in the base period data and more current available data provided by the Department. This will be compared with observed trend rates in other states' Medicaid managed care programs. This will also be compared with general medical inflation and other economic trends, as appropriate.

The final capitation rates will be developed by adjusting per member per month costs to reflect administration, profit, and contingency margins. To determine appropriate margins, we will examine DBM financial statements and compare these to financial statements from other Medicaid DBMs. To facilitate this process, Milliman's Indianapolis office maintains a database that summarizes financial metrics from the annual statements of Medicaid DBMs filing a NAIC annual statement. These metrics include values such as the Medical Loss Ratio, Administrative Loss Ratio, and Underwriting Ratio.

Step 4: Draft report provided and presented to the Department (Week 4)

Milliman will develop a draft report to be shared with the Department in advance of the final rate certification letter for submission to CMS. The draft report will provide full documentation of the rate development. This will include appendices illustrating actuarial cost models for each rate cell, and trend and other adjustments applied to the base data for each rate cell. The body of the document will discuss the data, assumptions, and methodology used to develop each adjustment to the rates. Milliman will provide the draft report in a format consistent with the final certification documentation that will be submitted to CMS.

Step 5: Draft capitation rate presentation to DBM(s) (Week 5)

Milliman will prepare a presentation to present the draft capitation rates to the DBMs. The Department will review the presentation and arrange for the meeting, while Milliman will take the lead in delivering the draft capitation rate results and explaining the main underlying assumptions.

Step 6: Revisions to report based on feedback (Week 6)

Milliman will assist the Department in responding to DBM questions, including any written questions that may be submitted after the meeting. Should the Department and Milliman wish to make any additional adjustments to the rates based on DBM feedback, Milliman will reflect those revisions in the final report.

Step 7: Final report communicated to the Department (Weeks 7+)

The final report, including actuarial certification for submission to CMS, will be delivered to the Department. Prior to release of the final report, internal Milliman peer review will be performed by an experienced managed care actuarial consultant who was not involved in the capitation rate setting process. This provides one last check to ensure the documented actuarially sound capitation rates fully meet all statutory and regulatory requirements, as well as all actuarial standards of practice.

Milliman's commitment to the project does not end with the final actuarial report. We are dedicated to providing the Department with any assistance that may facilitate receiving approval from all parties and implementing the rates. For example, Milliman is available to respond to questions or assist in follow-up discussions with CMS or the DBM. Milliman often assists states with aspects of contracting that are related to the rates, such as development of contract not to exceed values or reviewing contract language to ensure it is consistent with the development of the rates. We are also available to assist Department staff or the fiscal agent with implementation of the rates, or in any other capacity that the Department may request. For example, the fiscal agent needs to know the new rates to enter into the payment system, but may not be interested in the actuarially sound capitation rates. To minimize the chance of payment error, Milliman could provide the fiscal agent with a special packet including exhibits illustrating the actual new rates payable to each entity, less any performance withholds.

Staffing

In recognition of the broad array of services requested in this RFP, we have prepared a team of consultants and analysts that have a broad array of experience across Medicaid managed care programs and the healthcare industry. The organizational structure outlined below shows the primary staff that will be dedicated to providing actuarial and consulting services to the Department. The breadth and depth of the expertise of these individuals underscores our commitment to providing the highest quality actuarial and consulting services to the State of Nebraska. **While the services performed under this RFP will be performed by the staff in the Indianapolis office, we have countless resources available to access the intellectual capital generated by our global firm.**

Primary Consulting Actuary

- Robert M. Damler, FSA, MAAA – Principal and Consulting Actuary.

Project Manager

- Christopher T. Pettit, FSA, MAAA – Principal and Consulting Actuary;

Actuarial Support

- Colin R. Gray, FSA, MAAA – Actuary; and
- Jaime M. Fedeler – Actuarial Healthcare Data Analyst.

Data & Technical Support Analysts

- Matthew J. Brunzman – Healthcare Data Analyst; and
- Oksana V. Owens – Healthcare Data Analyst.

Resumes for each of the proposed team members are included in Appendix 6.

Deliverables and Due Dates

Milliman is committed to providing the highest quality actuarial consulting services in a timely and professional manner. We will assist the Department in meeting all of its commitments and believe Milliman is the best vendor for the Department for providing actuarial and consulting services related to the development of Medicaid dental capitation rates in the State of Nebraska.

We are committed to following the tentative timeline for Calendar Year 2020 capitation rate setting as outlined in the grid and key milestones listed in the previous section. In addition to completion of stated tasks, Milliman believes in establishing timelines to permit the Department an opportunity to review major deliverables and provide valuable feedback into the process. Sufficient time will be allotted to implement requested revisions/changes based on the Department's review of the deliverables. The timeline has been designed to allow for the final rates to be submitted 150 days or 5 months in advance of the effective date.

SOW 7 – Dental Capitation Rate Rebasing

The purpose of this SOW is to secure Actuarial and Consulting Services to rebase full risk capitation rates for the Dental Benefit Managed Care program. The rebasing process includes analysis of updated data and adjustments to trends. The rebasing activity will occur at least once per contract period.

Activities related to capitation rate rebasing include but are not limited to:

- a. Analyze different types of rate methodologies and models used by governmental and commercial entities upon request;*
- b. Analyze paid claims (both fee-for-service and managed care, managed care financial statement data, and managed care encounter data with a specific focus on developing a rate range of high/target/low full risk capitation rates;*
- c. Analyze rate cell alternatives for identification of various groupings for the population (e.g. age, gender, eligibility);*
- d. Assess compliance of rate methodologies and applications with Federal and State laws, rules, and regulations regarding reimbursement and budget-related issues;*
- e. Provide documentation and training for Department staff on new capitation rate-setting methodologies and procedures. Documentation and training shall be easily understood, allowing the Department to implement and manage the execution of new capitation rate-setting methodologies;*
- f. Provide an actuarial certification as to the soundness of the rates the contractor develops; and*
- g. Prepare all presentation material and attend and participate in DBM meetings as requested to promote approved recommendations.*

A Note on the Response Structure

Section V.C of the RFP indicates that the information that should be provided for each proposed service. Additionally, Section VI.A.3 outlines the required structure for the Technical Proposal. Therefore, we have structured our response as follows, to address the requested information:

VI.A.3.a Understanding of the Project Requirements

- Prior experience performing this service for other states or companies of similar size and Medicaid Managed Care enrollment numbers to the State of Nebraska ([Section V.C.c](#));
- Successes achieved, in regards to prior experiences listed above ([Section V.C.d](#));
- Description of challenges present with rate-setting and how bidder addresses each challenge ([Section V.C.e](#));
- Number of years performing the service ([Section V.C.f](#));
- All analysis, findings and/or recommendations are to be in line with current statutory/actuary as it applies to each SOW ([Section V.C.j](#)).

VI.A.3.b Proposed Development Approach

- Methodology for performing the service ([Section V.C.b](#))

VI.A.3.c Technical Considerations

- Any requirements to be provided by the Department ([Section V.C.g](#))

VI.A.3.d Detailed Project Work Plan

- Process, staffing and timeframe ([Section V.C.a](#));
- An estimated timeline for completion of services ([Section V.C.h](#))

VI.A.3.e Deliverables and due dates

Understanding of the Project Requirements

In addition to medical capitation rates, Milliman provides the same level of industry-leading services for dental programs. This response is largely consistent with that of SOW 2 to illustrate the similar degree of diligence applied to dental capitation rate rebasing.

As with the dental capitation rate setting, Milliman's goal would be to act as the state's trusted advisor. Milliman will work with the Department to gain an understanding of the program, its structure, and goals that the state seeks to achieve through providing the dental benefit. It is important to understand the history of the dental program and the reasoning behind its current format. Understanding the reasons behind the program can assist us in helping guide and the program to meet its anticipated goals. Each state has a unique method to approach Medicaid dental services and Milliman is committed to working with the Department to enhance the value of the program and meet its specific goals.

The dental capitation rate rebasing would include a full update of the base period data used to develop the actuarially sound rates and a review of the program's history. In addition, the rebasing could address changes to the rate structure, such as populations and services covered, the manner in which the rate cells are defined, if there specific services excluded from the managed care contract, the dental network in the state, the incentive structure, assumptions, data used to develop assumptions, methodology, or any changes the Department or Milliman may bring up for consideration.

Milliman works with state Medicaid clients to reevaluate and discuss the existing dental capitation rate structure at regular intervals. Rebasing is generally performed at the beginning of the contract period and then updated annually to provide a full update of the base data used to set the rates.

We have performed all of the items noted above for our state clients over the past 20 years. Although many states do not operate similar managed care dental benefit programs, we apply the same concepts and processes to rebasing dental capitation rates as we do for the larger medical services contracts. Our services include:

- Analyzing rate methodologies to determine the appropriate method to help establish the actuarially sound rates for the dental benefit
- Analyzing paid claims for dental services and ensuring appropriate experience is included
- Analyzing rate cell alternatives to assess whether the current structure is appropriate
- Assessing compliance of rate methodologies to ensure regulations and requirements are being met
- Providing documentation and training to the Department to ensure understanding of the materials
- Providing an actuarial certification to be provided to CMS for approval
- Preparing presentation materials to share with key stakeholders

Key Successes and Challenges

A key component to dental capitation rate rebasing is the ability to process large amounts of data in an effective and efficient manner. Milliman is well equipped to receive, load, and analyze all data provided by the Department. The following section contains a summary of client work consistent with the capitation rate rebasing activities outlined under SOW 7.

Success: Electronic Data Files

Milliman routinely receives and accepts large data sets from client servers to our Indianapolis office, including Medicaid eligibility, Medicaid capitation payments, Medicaid fee-for-service claims, and Medicaid managed care encounter data. Given the rapid transition of how dental benefits are often covered by our state clients, it is important to be able to understand and utilize all forms of data in dental capitation rate development and for general dental program data analysis. Milliman is accustomed to receiving dental benefit information both as a part of the encounter extract from the medical managed care program as well as a separate extract for stand-alone dental managed care

programs. Milliman also maintains Commercial and Medicaid databases along with internal analytic tools that allow our consultants to efficiently obtain information for a representative sample of the national scope of dental benefits.

Milliman has experience in assisting states with development of an encounter data monitoring report to reconcile submitted encounter data with actual experience of DBMs. Generally, Milliman designs an Encounter Quality Initiative (EQI) report customized to each state Medicaid client that compares plan membership, utilization per thousand, and per member per month metrics by service category for summarized encounters and plan reported financial summaries. These data comparison reports can be tied to financial incentive measures for the plans, with the goal of promoting complete and accurate encounter data which can be used for rate setting and other purposes.

Success: State of Michigan – Department of Community Health

Milliman has worked with the State of Michigan, Department of Health and Human Services since 1997 to perform risk-based capitation rate setting for all of the managed care programs operating in the state. Dating back to state fiscal year 2009, we have assisted the state in developing capitation rates for the Healthy Kids Dental program covering over 1 million lives on a statewide basis. Utilizing historically reported encounter data, we have established age-specific rate cells to accommodate the growing population under the managed care dental program. Upon inception of the Healthy Michigan program in April 2014, we assisted in the implementation of an adult managed care dental benefit specific to expansion members. During the course of this population's ramp-up, we performed durational analyses and multiple rebasing projects to maintain adequate rates in the program.

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Success: State of Ohio – Department of Medicaid

Milliman has worked with the State of Ohio, Department of Medicaid since 2015 to perform capitation rate setting and associated analyses for all populations covered under a risk-based Medicaid managed care program in the state. This includes Ohio's Medicaid Managed Care (MMC) program and the MyCare Ohio (MyCare) program. MyCare is Ohio's dual demonstration program that includes dental coverage, excluding orthodontia. Dental services are included as state plan services provided as part of the capitation rates. We have assisted Ohio in rebasing its capitation rates for both the MMC and MyCare programs to account for changes in dental benefits.

Success: State of Indiana – Family and Social Services Administration

Milliman has worked with the State of Indiana, Family and Social Services Administration to perform capitation rate setting for all populations covered under a risk-based Medicaid managed care programs in the state. The managed care programs were expanded to include dental services effective 2015. Our work with dental services included analysis to evaluate the program's preventive service utilization against other programs and recommended best practices. The capitation rates were adjusted to reflect service limitations under the alternative benefit plan (ABP) provided to expansion members, and evaluated for the potential impact of implementing an aggregate \$1,000 annual expenditure cap. We also performed a reimbursement study, comparing reimbursement under Indiana's program with commercial reimbursement and with Medicaid reimbursement in other states. We also gathered reimbursement recommendations from CMS and other sources.

Success: State of Illinois - Department of Healthcare and Family Services

Milliman has worked with the State of Illinois, Department of Healthcare and Family Services (HFS), to perform capitation rate setting and associated analyses for all populations covered under a risk-based Medicaid managed care program in the state. This includes the HealthChoices program and

the Medicare-Medicaid Alignment Initiative (MMAI) program. Dental services, with varying covered services between populations, are covered under the capitation rates. We are currently developing rate adjustments for the provision of a comprehensive dental benefit for the State's adult populations.

Challenge: Monitoring Data Quality

One of the most common and significant challenges of the capitation rate rebasing process is the availability of timely, accurate, and complete data. With the Department's managed dental program starting within the last 12 months, we anticipate there may still be significant data quality issues with this program. We will work with the Department to outline and collect the required experience data necessary for developing actuarially sound dental capitation rates.

We frequently work with our state clients to initiate and operationalize encounter data warehouses for new managed care programs, including new dental managed care programs. We often are key contributors to our states' encounter improvement workgroups and initiatives. Our contributions typically include an extensive review of DBM Medicaid data including but not limited to:

- DBM statutory financial statements;
- DBM reconciliation reports; and
- Claim level encounter data.

We frequently work with our state clients to initiate and operationalize encounter data warehouses for new managed care programs, including new dental managed care programs.

We will review each of the reported sources of financial information for reasonableness and to affirm the financial information is consistent across different reported sources. Examples of components included in our systematic data review include but are not limited to:

- Unit cost outliers;
- Utilization outliers;
- Systematic or specific under- or over-reporting;
- Duplication of claims or eligibility data;
- Consistency in reported experience over time;
- Consistency in unit definition among contracting providers;
- Comparison of reported financial data across reports;
- Review of incurred but not reported (IBNR) provisions for reasonableness;
- Review of sub-capitated payment arrangements; and,
- Comparison to external benchmarks.

In addition to currently available reported information, we will provide a survey to be completed by the DBM to provide supplemental financial and contextual information. We will review DBM responses to better understand DBM data structure and limitations. As we review the reported information, we will collaborate closely with the Department to follow up with the DBM as we identify potential areas of concern.

We understand that the collection of accurate data is critical to the continued success of the Nebraska Medicaid managed care program. If significant data issues arise during the data collection and review process, we will identify and quantify adjustments necessary to account for missing, underreported, duplicated, or otherwise inaccurate data elements. To address encounter data issues, we use the following process:

- **Define data issue.** We will draft communication to be shared first with the Department and then the DBM identifying the observed encounter data issue. The communication will document the services, populations, regions, and the time period impacted by the issue.

- **Confirmation from DBM of data issue.** We will seek confirmation of the data issue from the DBM. To the extent the DBM does not observe the same data issue, this may be an indication of encounter data transfer issue between the Department and the DBM.
- **Request revised or re-submitted encounter data.** After the DBM has acknowledged the identified encounter data issue, we will request the DBM, if possible, resubmit corrected encounter data to the Department.
- **Mitigation strategy.** For many instances where there are known encounter data issues, it may not be possible for the DBM to correct the issue by resubmitting data. Therefore, it will be necessary to seek alternative data sources from the DBM to allow us to appropriately adjust the encounter data for usage in the capitation rate development process. Alternative data sources may include financial reports, provider invoices, and other pieces of financial information.
- **Documentation in rate certification.** Consistent with standards in the CMS Medicaid Managed Care Rate Development Guide, we will document all material adjustments made to the DBM encounter data in our rate certification.

As evident in the final Medicaid managed care rule, CMS has raised its standard for the reporting of quality encounter data by states, including withholding federal Medicaid funding if a state fails to correct data issues. As demonstrated in our white paper on the encounter data standards¹⁰, we are prepared to help the Department and their DBM improve encounter data quality.

Regulations and Actuarial Standards of Practice

All CMS regulations and Actuarial Standards of Practices that are applicable to medical benefit capitation rate rebasing are likewise applicable to dental benefit capitation rate rebasing. Please see SOW 2 for our discussion of our adherence to and understanding of applicable regulations and Actuarial Standards of Practice. As the approach to rebasing capitation rates for dental benefits is consistent across these programs, the regulations we adhere to are critical in ensuring appropriate documentation.

In particular, the passage of the CMS regulations in April 2016 removed the certification of rate ranges beginning with contract periods on or after July 1, 2017. Thus, while we will assist the State of Nebraska in developing a range of rates for the dental program, the ultimate rates will be certified as a single set of actuarially sound rates.

Proposed Development Approach

Dental capitation rate rebasing contains three key components, which can be summarized under the following process.



¹⁰ <http://us.milliman.com/insight/2016/Encounter-data-standards-Implications-for-state-Medicaid-agencies-and-managed-care-entities-from-final-Medicaid-managed-care-rule/>

STEP 1

Base Data
Summarization*1. Base Data Summarization*

Consistent with our approach described in SOW 1, the first step of identifying and summarizing the base data affects all of the subsequent steps in the process. Successfully developing appropriate dental capitation rates hinges on the quality of the data and ensuring that the appropriate information is identified in our data gathering process. Given the importance of accurate base data, this is where we spend a significant amount of time and effort. The comprehensive methodology that follows is indicative of our in-depth approach and unrelenting attention to detail. Milliman consultants apply our industry-leading best practices and cutting-edge software tools to maximize the utility of available data sources so that the developed rates are as accurate as possible. In particular, we ensure that claims for dental services are appropriately being coded to the correct program and reflect the services covered under the state's dental benefit.

It is critical to consider multiple sources of information when establishing dental managed care capitation rates. Using Medicaid data sources required for the capitation rate development, including DBM encounter data and applicable DBM financial data, we summarize historical experience by population, rating region (if applicable), rate cell, class of service, and other appropriate groupings within actuarial cost models. Historical experience will be adjusted for any known data quality issues that we have discovered during the course of the rigorous data review process.

While the ultimate goal is to have DBM encounter data complete enough to be fully used in rate setting, it is anticipated that encounter data may need to be supplemented by DBM cost report data, to create a blended base experience for the rate development process for established managed care programs. Given the recent implementation of Nebraska's dental managed care program, FFS data may serve as the base experience in the rate development process. Over the course of our rate setting processes in multiple states, we have found significant value in requesting managed care organizations to provide additional information outside of the encounter data process to ensure we are utilizing the all available resources to establish actuarially sound capitation rates. Therefore, we will work with the Department to conduct a survey of the DBMs to allow us to collect additional sources of data to confirm reasonability and accuracy of the encounter data that we are using to establish capitation rates.

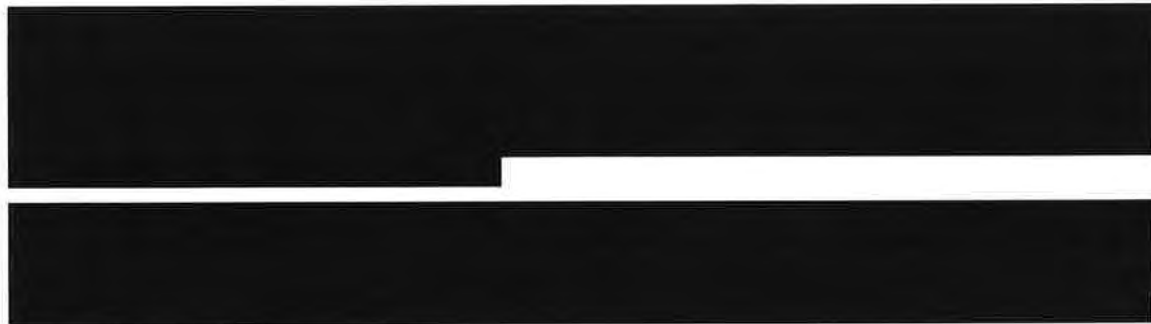
For established dental managed care programs, the weighting between cost report and encounter data will be dependent on our review of data quality in each source. Additionally, for certain service categories, one data source may prove more credible than the other. For example, if a service category had poor encounter data reporting by the DBM, we would consider utilizing available and applicable DBM financial data for that specific service category.

The base data summarization serves as the building block for establishing fair and appropriate rates. The base data acknowledges historical experience for the DBM operating within each of Nebraska's managed Medicaid programs.

Following the initial task of data collection and summarization, we will use the experience data to develop actuarial cost models for the historical claims experience. Actuarial models are the cornerstone of healthcare data analytics. They illustrate claims experience in a format that allows analysis by specific categories of service normalized for the size of the population in order to make the data comparable to other sources, such as Medicaid utilization for particular categories in other states or for comparison between two different cohorts of the Nebraska Medicaid population. Actuarial models are built to summarize the following information: member months, utilization rates per 1,000, cost per unit

of service, and per member per month (PMPM) claim costs. The actuarial model methodology has been utilized by Milliman actuaries for more than 50 years, and during that time we have developed standard service category groupings to best illustrate experience for various populations. Our standard categories employ analytical methodologies and algorithms to group dental claims experience in categories of service that create homogeneous groupings of services. The groupings or categories of service are modeled to allow for a comparison of the actuarial metrics of the model by population cohort and categories of service. For example, by expanding a generally classified "Specialty" or "Tier III" category into additional category of services, we are able to analyze prosthodontic services, endodontic services, periodontics services, restorative services, and other categories of service by meaningful utilization and cost statistics. Two to four full years of experience data are optimal for understanding potential changes over time and verifying reasonability of the data received.

In addition to reviewing annual cost models as described above, we will review monthly actuarial cost model metrics by population and major category of service for consistency on a month-to-month basis. Often an actuarial cost model for a plan may illustrate a plan that may be having difficulty reporting encounter data for one or several months, while the remaining months appear credible. If the encounter data were only viewed on a 12 month basis, these problems could be overlooked.



2. *Base Data (Historical) Adjustments*

After thoroughly analyzing the data and working with the DBM to maximize data accuracy, it is still necessary to perform certain adjustments. These adjustments may include further refinements to the data quality or attempts to update the historical experience to a consistent basis usable for rate setting. Examples of key types of base data adjustments and relevant considerations for this step include:

Incomplete Data: The base data will be adjusted for incurred but not paid (IBNP) claims using standard actuarial techniques. The data will have some amount of payments beyond the incurred period; however, there is likely to be an amount that is missing due to the date that the data extract is created. We develop completion factors at the major population and category of service level. The service level granularity depends on whether certain dental services complete at a different rate within each major service category. Estimating IBNP for dental services is especially influenced by the number of business days or school days (for children) in a month, which is considered in our dental IBNP modeling. Generally speaking, the completion pattern for dental claims is faster than most medical services, but slower than for pharmacy claims.

Credibility Smoothing: During the course of rate setting, we must balance the need for analyzing the data at high degrees of granularity with the need for maintaining an appropriate sample size for drawing reasonable conclusions. In cases where the data is categorized very finely, we will consider applying credibility smoothing techniques as necessary. For example, it would be prudent to do so in the case of rate cells or regions without adequate enrollment, or new services or programs that do not yet demonstrate sufficiently stable experience. This is often achieved by blending the known data with appropriate similar supplemental sources or prior assumptions.

Population Adjustments: Sometimes the historical membership records do not align with the anticipated future enrollment. This could be due to shifting demographics, eligibility redeterminations, retroactive eligibility considerations, or other potential reasons. In these cases, typical methodologies we will use include member morbidity analysis to project population dental acuity changes and analysis of comparable precedents. For example, dental services are especially subject to pent-up demand in situations where members may be without dental coverage for periods of time. Our wealth of Medicaid experience, as well as our relationships with consultants working across the entire spectrum of the healthcare industry, provides us with useful examples of potentially related situations that have occurred in other programs and states.

Retrospective Policy and Program Adjustments: Additionally, utilization and cost during the base experience period may need to be adjusted for policy and program changes that occurred during the course of the experience period. For example, a dental fee schedule change may have occurred midway through the experience period. While this reimbursement change would be reflected in the second half of the base experience period, it would not be reflected in the first half of the period. In this example, we will develop an adjustment factor to normalize the base experience to be on a consistent basis with the contract period which the data is underscoring.

Other adjustments may be necessary for information that cannot be reflected in the encounter data. Such information includes third-party liability (TPL) recoveries, uncollected copayments, provider bonuses and settlements paid outside the DBM MMIS, and fraud & abuse recoveries.



3. *Trend Rate Development*

Selection of Medicaid unit cost and utilization trends used in developing dental capitation rates relies heavily on actuarial judgment, supported by historical data analysis, state-specific program and reimbursement fluctuations, national Medicaid information, and information from similar Medicaid managed care programs in other states. Certain populations and services require special attention in developing dental trend rates.

We have extensive experience setting dental capitation rates and trend rates for all the population types covered by the DBM in Nebraska. Examples of the special trend considerations are as follows:

- Maturity of Managed Dental Program:** With the managed dental program starting within the last 12 months, it is likely that not enough stable benefit cost experience has materialized for purposes of trend development. The initial months of a new managed care program generally result in volatile claims experience for the DBM as members learn the new program. We will review the emerging managed dental experience in conjunction with nationwide Medicaid dental trends to develop a robust trend estimate for the Department's program.

- **Provider Access:** Dental provider access is especially important for understanding and projecting dental trend rates. The addition or removal of key Medicaid dental providers can have a material impact on dental trend rates. We will utilize our DBM data request to understand any potential issues related to provider access for purposes of the dental capitation rate development process.

In addition to our detailed data analysis, we will review the previously applied dental program trend rates, trend rates used in other states' similar Medicaid programs, and industry reports on nationwide dental trend rates.

Adjustments for Population and Program Changes

We believe in a transparent rate development process, and thus believe rate assumptions used in managed care rate development should purely reflect dental inflation. Historical cost experience can be impacted by a number of factors outside of dental inflation, including:

- Fee schedule changes;
- Age/gender mix differences;
- Legislative mandates;
- Changes in covered services;
- Population changes; and
- Seasonality.

We adjust the base data to normalize for these changes that have occurred during the base experience period and other factors that may occur on a prospective basis. These adjustments are documented in our rate certification so that stakeholders can understand the incremental effect of each adjustment to the final capitation rates. These adjustments to the data ensure comparisons across time periods are normalized to the same base experience in terms of the above listed factors.

Trend Analysis Techniques

Traditionally trend development techniques may rely on performing a time series regression on historical experience from a single rate cell / service category combination. The challenge with this approach is that trend rates may be based on too granular of data and may be excessively influenced by historical volatility. Conversely, trend rates may be established by rolling up several rate cells or service category combinations to produce a more credible or stable trend calculation. This second approach, while limiting the impact of historical volatility, may not fully capture unique utilization or cost characteristics within a given rate cell/service category combination. Our approach, defined in statistical terms as a hierarchical trend analysis, balances the two approaches to produce trend calculations that are not overtly swayed by historical volatility, but are still influenced by historical experience at the rate cell / service category level.

Technical Considerations

When rebasing the dental capitated rates, we will rely on data and other information to be provided by the Department. Milliman will assist the Department's data team with understanding its data needs for completing dental capitation rate rebasing activities. Data needs will include managed care encounter data and fee-for-service data for non-managed care populations and services.

- The appropriate source of data for the population to be covered by the managed care program should be used for the analysis. The data must be assessed for appropriateness based on a comprehensive data validation process and supplemented by financial and contextual survey information provided by each DBM.
- Following receipt of the required data and information, we will perform a data validation and review of the information provided to help with issues such as:
 - Inconsistencies in how data was formatted and entered;
 - Relational integrity problems between components of the data;

- Data volume consistency issues;
- Duplicate data;
- Reconciliation of different data formats pulled together from multiple sources; and
- Reasonableness of the metrics created by the system

Our data validation process ensures common formatting errors are identified and resolved early in the data loading process. Any exceptions are automatically captured and stored in detail and summary tables. Threshold levels have been established for all quality metrics, as well as for claims and eligibility file join rates.

To measure the completeness of encounter data, we will include quality checks to compare encounter data statistics to fee-for-service and other benchmarks to verify reasonability. We will review encounter data to ensure that all services have been captured and utilization appears reasonable by category. We will also compare data to dental capitation rates or other available benchmarks to assess reasonableness.

- Monthly actuarial cost model metrics must be reviewed to identify inconsistencies throughout the base data period that should be appropriately accounted for in the development of the base data
- Where rate cells have relatively small numbers of individuals, cost neutral data smoothing techniques should be used;
- Data sets must be analyzed for completeness by forming lag triangles by paid and incurred month and applying traditional actuarial techniques to develop appropriate estimates of incurred but not paid liability.
- Evaluation and assessment of benchmarks should be considered in capitation rate development. Medicaid fee-for-service (FFS) payment rates per unit of service are one of several appropriate benchmarks that may be reasonable in evaluating reimbursement and contracting levels.
- Contracted reimbursement rates for the DBM must be benchmarked against each other to evaluate reasonably achievable efficiency targets.
- When FFS data are used for the calculations, differences in expected utilization rates between FFS and managed care programs should be accounted for.
- Acuity-related dental trends should be normalized for reimbursement adjustments and changing populations to extract underlying trend rates to be used in analysis of projected trend assumptions.

Detailed Project Work Plan

Our typical capitation rate rebasing timeline is outlined below. Items highlighted in green shading represent deliverables to the Department. Also, we have found it ideal to set up bi-weekly or weekly check-in and status calls with our state Medicaid agency clients to keep them informed of every step of the process.

Nebraska Medicaid Dental Rate Rebasing

Dental Capitation Rate Rebasing - Project Work Plan

Plan Duration

ACTIVITY	WEEKS																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1 Preliminary meeting to discuss potential changes																	
2 Collection of data for analysis																	
3 Base data validation																	
4 Analysis and development of rate setting recommendations																	
5 Interim analysis results presented to the Department																	
6 Discussion of interim analysis results and decisions on changes																	
7 Development of dental capitation rates																	
8 Development of dental capitation rates																	
9 DBM review and recommendations																	
10 Base data summaries for capitation rate development																	
11 DBM review and recommendations																	
12 DBM review and recommendations																	
13 DBM review and recommendations																	
14 Draft capitation rate presentation to DBMs																	
15 Review feedback from DBMs and finalize program & policy changes from the Department																	
16 Finalize capitation rates and submit to the Department																	

Step 1: Preliminary meeting to discuss potential changes (Week 1)

Milliman and DHHS will have an initial meeting to discuss the rebasing project. In addition to a full update to the base data, the rebasing could include other changes to the reimbursement structure. This meeting would be an opportunity for Milliman and the Department to discuss changes being considered to the reimbursement structure.

Prior to this meeting, Milliman would perform a review of the current methodology and models. At the meeting, Milliman would make recommendations related to the appropriateness of rate cell definitions, recommended updates to assumptions or methodology, and any type of change to the benefit structure that may add value to the program.

Milliman will also provide the Department with updated information on current laws and regulations and how those may impact the rates to be paid to managed care entities. This will include future regulation changes and the applicability of those changes in relation to the programs covered by the Department.

The Department would also bring up other changes for discussion, such as changes related to other policy or program changes under consideration, alternative models or methodologies, administrative considerations, or issues raised by legislators, advocates, or other stakeholders. When the state is considering truly significant changes, such as progressive dental benefits or expansion of orthodontic coverage, the discussion would have started well in advance of the official rebasing process in order to allow for full analysis, discussion with legislators, and negotiation with providers and CMS. With all of the preliminary work done, this meeting would focus more on how to integrate the new program into the process. However, when the state would like to consider simpler changes, such as a minor change in eligibility or benefits, this meeting would be an appropriate forum to request Milliman estimate the fiscal impact of the change and number of individuals affected, or any other information needed to allow the Department to make a final decision on whether to implement the change.

Milliman and the Department would discuss all proposed changes and decide which ideas merit implementation or further study. For each item to be included in the analysis, the Department and Milliman would determine the scope and structure for the deliverable, clarify responsibilities, and develop an approximate timeline.

Step 2: Collection of analysis data (Weeks 2-3)

Milliman will request data needed to complete the analyses. In most cases this will include fee for service claims, encounter claims, and eligibility data, often in the same format as the data that will be used for the final rebasing, but from a slightly earlier time period. Milliman will check the data for reasonableness and consistency with prior period data and adjust the data for unpaid claims. Data from outside sources may also be needed, depending on the specific analysis being performed. This may include census data, benchmarking data, data from internal Milliman sources, and other sources.

Step 3: Base Data Validation (Weeks 4-6)

During this time, we perform the detailed data validation activities and build the initial data summaries. Milliman will perform reasonability checks on the data to ensure there is no missing data or a material level of unpaid claims. We will also make sure we are able to identify populations in order to allocate enrollment and claims to the appropriate rate cell and also in order to exclude any populations that should be carved out. Similarly, we will reconcile to ensure we are properly identifying category of service, both in order to appropriately allocate expenditures by category of service, and also to make sure we are excluding services that are not covered or carved out.

Step 4: Analysis and development of rate setting recommendations (Weeks 4-6)

Milliman will analyze each proposed change to the dental capitation rate structure or methodology. Summarized results will be prepared in the same format as the final analysis report. For most of the issues analyzed, projections under the current program will be compared with projections after the proposed change. In general, the comparisons will illustrate cost and number of affected individuals, but may include other relevant information, depending on the issue being considered. For example, an analysis of implementing progressive benefits might include several scenarios, and in addition to fiscal impact, would also address outcomes such as access to coverage or variability within each rate cell.

In addition to exhibits illustrating the results of the analysis, Milliman will prepare documentation including background notes and clarify key assumptions, data sources, methodology, and any other information that may be helpful to the Department and support informed decision making.

Step 5: Interim analysis results presented to the Department (Week 7)

Milliman will provide the Department with interim results in order to receive feedback and suggestions. As appropriate based on the complexity of the analysis, conference calls or meetings may be scheduled to allow for questions and more in-depth discussion.

Milliman is committed to making the analysis transparent to the Department to ensure a full understanding of the expected impact and potential risk associated with each proposed change to the rate structure.

Step 6: Discussion of analysis results and decisions on changes (Weeks 8-9)

The Department will meet with Milliman to discuss the analysis and make final decisions on what changes to implement in the rebased dental capitation rates. The other proposals may be rejected or tabled for further consideration at a later date. Following the meeting, Milliman will finalize the analysis report, and document decisions made on each proposal.

As a companion document, Milliman will prepare documentation addressing any changes that may be needed to administrative procedures. Milliman will also prepare a presentation for affected Department staff, to allow for questions, training, and discussion.

Step 7: Final report to the Department documenting capitation rate structure and methodology (Week 10)

We deliver the final analysis document to Department and set up a meeting to initiate the implementation portion of the project. During this meeting, we will discuss timing and expectations for the dental capitation rate development analysis incorporating any changes to the reimbursement structure and methodology. Although the work to be done and changes to be made for a rebasing are normally much more comprehensive, the preliminary analysis performed in Steps 1 through 6 will assist with defining the changes to be implemented.

Milliman anticipates that most elements of the project will be defined during this meeting, with interim deliverables and timeframes agreed upon in advance. However, sometimes a change is needed midstream. In these instances, Milliman will work collaboratively with the Department to adjust the processes or direction.

The Department may wish to set up an informational meeting with the DBMs to discuss any changes to the reimbursement structure or methodology. Milliman will be available to support, as desired by the Department.

Step 8: Development of dental capitation rates (Weeks 10-17)

This project phase encompasses the rate development process using rebased capitation rate data. Steps 9 through 16 below outline the various activities taking place during this time. The culmination of this process is the delivery of the actuarial rate certification for the dental managed care program.

Step 9: DBM survey and expected return (Weeks 10-12)

As noted in the Proposed Development Approach section, we request information from the DBMs to help provide additional insight into the data sources we use for the analysis, and to aid in the overall capitation rate development process. Because the information requested from the DBMs is less than that from the medical services health plans, we can expect a quicker turnaround in three weeks for the completed surveys.

We treat this information with the utmost confidentiality, as we understand that the health plans are providing proprietary information in many cases.

Step 10: Base data summaries for capitation rate development (Week 10-11)

Milliman will collect updated fee-for-service claims, encounter claims, and eligibility data from the Department. The base time period used for the capitation rate development could include multiple years. It also should be fairly recent, but not so recent as to be substantially incomplete. In addition, Milliman normally tries to develop a base time period that corresponds to available financial data, such as the most recent year reported on statutory insurance filings.

As noted in Step 3, Milliman will perform reasonability checks on the data to ensure there is no missing data or a material level of unpaid claims. We will also make sure we are able to identify

populations in order to allocate enrollment and claims to the appropriate rate cell and also in order to exclude any populations that should be carved out. Similarly, we will reconcile to ensure we are properly identifying category of service, both in order to appropriately allocate expenditures by category of service, and also to make sure we are excluding services that are not covered or carved out.

Milliman will also collect financial statement data, insurance filings, and cost reports from the managed care entities. This information will be compared with plan-specific data summaries created from the base data.

Step 11: DBM-specific data validation report (Weeks 11-12)

The culmination of the base data validation process is to prepare dental plan-specific base data summaries by capitation rate cell and region for distribution to the respective DBMs. This report provides them the opportunity to review the encounter data we have received and perform their own validation activities.

Within this report, we document the main criteria used to stratify the base data cost models into capitation rate cell, region, and service category groupings.

A main advantage of providing the dental plan-specific summaries is that from the first major step of the process, we get buy-in from the DBMs, recognizing that they are essential stakeholders in the capitation rate development analysis.

We plan to deliver the report to the Department for distribution to participating DBM(s) during Week 11 to document the main criteria used to stratify the base data cost models into capitation rate cell and class of service, with an expected turnaround time for the DBM(s) to respond with any comments or concerns regarding their respective data the following week. We also anticipate that the DBM(s) can use the information presented in the report to assist them with completing their surveys which are also due during Week 12.

Step 12: Meeting with DBMs to promote approved recommendations, base data & rate methodology (Week 13)

We anticipate delivering an in-person presentation to the DBMs to walk through the full development of the capitation rate. We will address and describe each major capitation rate adjustment and the key assumptions underlying the development of these adjustment factors. Additionally, the presentation will cover any approved changes to the reimbursement structure and rate development methodology.

We believe that this meeting continues to support transparency in the process and provides a forum for the DBMs to ask questions during the discussion. Finally, if the Department is agreeable, the DBMs may submit additional questions in writing related to the rate development, for the Department's and Milliman's consideration.

Milliman will draft the presentation to present the proposed rates to the DBMs. The Department will review the presentation and arrange for the meeting, while Milliman will take the lead in explaining and promoting all reimbursement structure or methodology changes to the DBMs.

Step 13: Draft capitation rate report provided and presented to the Department (Week 14)

Milliman will develop a draft report to be shared with the Department in advance of the final dental rate certification letter for submission to CMS. The draft report will provide full documentation of the rate development. This will include appendices illustrating the data summaries and actuarial cost models for each rate cell, and trend and other adjustments applied to the base data for each rate cell. The body of the document will discuss the data, assumptions, and methodology used to develop each adjustment to the rates. Milliman will provide the draft report in a format consistent with the final certification documentation that will be submitted to CMS.

Following an appropriate timeframe for review by the Department, Milliman will solicit feedback on the proposed rates. Milliman will edit the draft report and rate calculations as appropriate.

Step 14: Draft capitation rate presentation to DBMs (Week 15)

Milliman will prepare a presentation to present the draft capitation rates to the DBMs. The Department will review the presentation and arrange for the meeting, while Milliman will take the lead in delivering the draft capitation rate results and explaining the main underlying assumptions.

Step 15: Review feedback from DBMs and finalize program & policy changes from the Department (Week 16)

Milliman will assist the Department in responding to DBM questions, including any written questions that may be submitted after the meeting. Should the Department and Milliman wish to make any additional adjustments to the rates based on DBM feedback, Milliman will reflect those revisions in the final report.

Step 16: Final capitation rate certification report communicated to the Department (Weeks 17+)

The final report, including actuarial certification for submission to CMS, will be delivered to the Department in Week 17. Prior to release of the final report, internal Milliman peer review will be performed by an experienced managed care actuarial consultant who was not involved in the capitation rate setting process. This provides one last check to ensure the documented actuarially sound capitation rates fully meet all statutory and regulatory requirements, as well as all actuarial standards of practice.

Milliman's commitment to the project does not end with the final actuarial report. We are dedicated to providing the Department with any assistance that may facilitate receiving approval from all parties and implementing the rates. For example, Milliman is available to respond to questions or assist in follow-up discussions with CMS or the MCOs. Milliman often assists states with aspects of contracting that are related to the rates, such as development of contract not to exceed values or reviewing contract language to ensure it is consistent with the development of the rates. We are also available to assist the Department staff or the fiscal agent with implementation of the rates, or in any other capacity that the Department may request. For example, the fiscal agent needs to know the new rates to enter into the payment system, but may not be interested in the actuarially sound capitation rates. To minimize the chance of payment error, Milliman could provide the fiscal agent with a special packet including exhibits illustrating the actual new rates payable to each entity, less any performance withholds.

Staffing

In recognition of the broad array of services requested in this RFP, we have prepared a team of consultants and analysts that have a broad array of experience across Medicaid managed care programs and the healthcare industry. The organizational structure outlined below shows the primary staff that will be dedicated to providing actuarial and consulting services to the Department. The breadth and depth of the expertise of these individuals underscores our commitment to providing the highest quality actuarial and consulting services to the State of Nebraska. While the services performed under this RFP will be performed by the staff in the Indianapolis office, we have countless resources available to access the intellectual capital generated by our global firm.

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Primary Consulting Actuary

- Robert M. Damler, FSA, MAAA – Principal and Consulting Actuary.

Project Manager

- Christopher T. Pettit, FSA, MAAA – Principal and Consulting Actuary;

Actuarial Support

- Colin R. Gray, FSA, MAAA – Actuary; and
- Jaime M. Fedeler – Actuarial Healthcare Data Analyst.

Data & Technical Support Analysts

- Matthew J. Brunsman – Healthcare Data Analyst; and
- Oksana V. Owens – Healthcare Data Analyst.

Resumes for each of the proposed team members are included in Appendix 6.

Deliverables and Due Dates

Based on the project work plan outlined above, the intended deliverables for this project would include interim results, data summaries, a draft report, and a finalized rate certification. These items would be delivered over the course of the project timeline as identified above.

The final report will provide a detailed description of our methodology used for developing the dental capitation rates and provide an actuarial certification as to the soundness of the rates we develop. Additionally, we will prepare presentation material, attend and participate in meetings with managed care organizations as requested to assist with promoting the approved recommendations.

SOW 8 – Special Projects

The Department may request the contractor, subject to mutual agreement by both parties, to engage in special consulting projects related to Medicaid.

The bidder should provide the hourly rate for each Staff position used to complete special consulting projects. Please identify any additional Staff titles and their appropriate rates, which bidder believes may be used to complete said projects.

A project plan will be prepared for each project, which may include, but is not limited to, project identification number, project statement, deliverables, milestones, due date(s), and projected hours. Should the Department and the contractor agree to changes in the project plan, the original hours may be adjusted during the execution of the project. The amount paid to contractor will be based on the lower of the actual billed hours or the hours specified in contractor's most recently approved project plan, multiplied by the applicable hourly billable rate(s), as submitted. The Department is interested in proposals that provide well-organized, comprehensive, and technically sound business solutions.

Special Project activities may include but are not limited to:

- a. Contractor will provide the Department with financial analysis and actuarial consultation to assist the Department in the Request for Proposal process as the Department implements new managed care programs;*
- b. Provide detailed analysis and develop recommendations for potential modifications, improvements or enhancements to existing managed care plans and programs, in compliance with current State statute and Federal requirements;*
- c. Participate in the annual review of performance evaluations of managed care plans and provide analysis and recommendations; and*
- d. Managed Care encounter validation activities.*

The specific Scope of Work listed above is not intended to be all-inclusive and will be determined at the sole discretion of the Department, based on projected needs. Contractor will be required to provide an hourly rate per specific position.

All special consulting project costs must be based upon the hourly rates.

As outlined in the Corporate Overview Section, Milliman is well positioned to assist the State of Nebraska with completing the special projects identified in the RFP or any additional special projects that may be identified during the term of the contract. The Milliman Medicaid Consulting Group is an actuarial consulting group for 20 state Medicaid agencies with more than 100 actuarial consultants working with the various agencies. We have more than 30 Medicaid consultants who are Fellows of the Society of Actuaries and Members of the American Academy of Actuaries. An individual that has attained their Fellowship has received the highest designation of the Society of Actuaries, which encompasses mathematical, financial, and operational issues associated with health insurance and social insurance programs. Nearly all of these consultants have more than 10 years of consulting experience in government programs, specifically state Medicaid consulting.

Milliman Medicaid Consulting Group actuarial consultants are located in four Milliman offices (Indianapolis, Milwaukee, Seattle, and San Francisco), and regularly collaborate and share information. This collaboration has led to the development of the Medicaid best practice modules, which are also outlined in the Corporate Overview. The best practice modules

The Milliman Medicaid Consulting Group is an actuarial consulting group for 20 state Medicaid agencies with more than 100 actuarial consultants working with the various agencies. We have more than 30 Medicaid consultants who are Fellows of the Society of Actuaries and Members of the American Academy of Actuaries.

encompass many topics related to Medicaid managed care, including: risk adjustment techniques, encounter data and financial information collection and reconciliation, and development of trends, administrative expense assumptions, and managed care efficiencies. The best practice modules encourage inter-office collaboration, discussion, development and evolving.

The Milliman Medicaid Consulting Group provides a network of more than 100 actuaries who may be able to connect the Department with other state Medicaid programs that have recent experience relevant to a newly identified issue or project. While maintaining HIPAA security requirements, other Medicaid programs are often willing to share information and data analytics. We collaborate on research reports, data analytics and web-based presentations for our state Medicaid clients.

The RFP outlined several Special Project activities that may be considered during the term of the contract. We have provided a summary of similar projects that we have performed with various state Medicaid agencies.

- a. *Contractor will provide the Department with financial analysis and actuarial consultation to assist the Department in the Request for Proposal process as the Department implements new managed care programs.*

As outlined in our Corporate Overview, we recently assisted the State of Illinois in the procurement for new health plans for the statewide expansion of the Medicaid managed care program. The RFP was managed by a third-party entity; however, Milliman provided subject matter expertise in establishing the criteria for health plan participation. Milliman was the contracted actuary to perform the certification of the capitation rates. We developed a capitation rate range to allow a competitive bid situation by the health plans. The initial capitation rate range was established in March 2017. The RFP process allowed for the capitation rate range to be updated in October 2017 with emerging experience. However, the health plans were restricted to the point in the rate range that was bid. For example, if the health plan bid the lowest end of the capitation rate range, the health plan would be placed at the lowest end of the updated capitation rate range reflecting the emerging experience.

We provided a data book, full documentation, presentation of the bid rate range to prospective bidders, and follow-up Q&A during the initial RFP bid process. Further, we developed the updated capitation rate range, provided capitation rate certification, presented the updated capitation rates to the awarded bidders, provided follow-up Q&A regarding the updated rate range, and performed individual one-on-one sessions with the health plan executive leadership, including actuaries, to answer questions and provide guidance regarding the final capitation rates. We provided the capitation rate certification that was submitted to CMS.

The Illinois procurement expanded the Medicaid managed care program to a state-wide basis. Seven health plans were awarded new contracts. The total annual Medicaid managed care capitation rates will be \$12 billion, which began on January 1, 2018 with full state-wide expansion occurring on April 1, 2018.

We are currently working through the policy and program changes for calendar year 2018 and will be providing updated capitation rates for July 1, 2018. Additionally, with the open enrollment and auto-assignment processes, we are developing the risk score adjustment factors that will be applied in calendar year 2018. We needed to wait until after all of the open enrollment periods are ended to identify the distribution of the members among the health plans.

In addition to the State of Illinois RFP assistance, the professionals identified for the State of Nebraska consulting staff group have assisted the states of Indiana and Michigan in RFP procurements in the last three to five years. Both of these states added or reduced Medicaid managed care health plans to their program. Indiana recently added a program for disabled members (2015), made significant changes to another program, the Healthy Indiana Plan expansion, and is in the process of carefully reviewing options for serving remaining populations in managed care.

As outlined above, the professionals identified for the State of Nebraska consulting staff group have extensive experience in assisting states with RFP procurements for Medicaid managed care plans. In

addition, we have access to a much broader team of consultants that have assisted in other state Medicaid programs, including most recently the State of Florida procurement.

- b. Provide detailed analysis and develop recommendations for potential modifications, improvements or enhancements to existing managed care plans and programs, in compliance with current State statute and Federal requirements.*

While the State of Nebraska has identified this as a special project, we often consider much of this consulting in our standard day-to-day efforts in working with the state Medicaid agencies. However, to illustrate similar consulting experience as outlined, we were recently hired by the State of Maryland to perform an independent review of the Medicaid managed care program. Specifically, we were requested to review the State statutes and Federal requirements related to capitation rate setting and value based purchasing. We prepared an extensive report providing multiple recommendations related to the various aspects of the Medicaid managed care capitation rate setting.

- c. Participate in the annual review of performance evaluations of managed care plans and provide analysis and recommendations.*

Again, similar to the prior item listed, we consider the review and understanding of the performance evaluations of managed care plans an essential part of the Medicaid managed care rate setting process. The Actuarial Standard of Practice No. 49 related to Medicaid managed care rate setting and CMS managed care regulations requires the actuary to understand the withhold and bonus amounts under the contract. Further, the actuary needs to be able to estimate the amount of the withhold that the health plans are able to receive back under the terms of the contract.

The professionals in the Milliman Medicaid Consulting Group have experience in more than 20 states. We are able to combine this experience and share information regarding withholds and performance measures, which are an important aspect of Medicaid managed care programs. Value based purchasing has become an important aspect of many Medicaid managed care contracts. Balancing the number of incentives and performance measures is an important aspect of receiving participation of the health plans in implementing these programs. The withhold on a per performance measure must be a balance between the amount of funds related to the individual performance measure. Additionally, if there are too many performance measures, the managed care plans may lack direction on how to prioritize their efforts, or may not have a clear understanding the goals and visions of the state Medicaid agency.

- d. Managed Care encounter validation activities.*

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

**Appendix 1 – Financial
Statements**

Report of Independent Auditors and
Consolidated Financial Statements for

Milliman, Inc.

December 31, 2016 and 2015

MOSS ADAMS_{LLP}

Certified Public Accountants | Business Consultants

REPORT OF INDEPENDENT AUDITORS

To the Shareholders of
Milliman, Inc.

Report on the Consolidated Financial Statements

We have audited the accompanying consolidated financial statements of Milliman, Inc., which comprise the consolidated balance sheets as of December 31, 2016 and 2015, and the related consolidated statements of operations, comprehensive income (loss), shareholders' equity, and cash flows for the years then ended, and the related notes to the consolidated financial statements.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Milliman, Inc. as of December 31, 2016 and 2015, and the results of its operations and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Greg Adams LLP

Seattle, Washington
April 28, 2017

MILLIMAN, INC.
CONSOLIDATED BALANCE SHEETS

ASSETS	December 31,	
	2016	2015
CURRENT ASSETS		
Cash and cash equivalents	\$ 30,291,947	\$ 19,616,729
Receivables, net	196,072,949	185,363,291
Prepaid expenses, deposits, and other current assets	18,866,480	13,950,733
Income tax receivable	6,789,000	3,165,000
Total current assets	252,020,376	222,095,753
PROPERTY AND EQUIPMENT, net	28,267,468	32,670,086
INTANGIBLE ASSETS, net	1,972,636	2,657,915
GOODWILL, net	3,429,761	3,999,127
OTHER ASSETS		
Investments	6,062,948	5,947,050
Long-term deposits	3,767,058	3,345,628
Total other assets	9,830,006	9,292,678
	\$ 295,520,247	\$ 270,715,559
LIABILITIES AND SHAREHOLDERS' EQUITY		
CURRENT LIABILITIES		
Accounts payable and accrued liabilities	\$ 81,790,423	\$ 83,948,293
Notes payable under lines of credit and current portion of long-term debt	46,687,187	27,988,395
Current portion of post-termination obligations	466,814	739,623
Deferred revenue	32,733,268	28,656,071
Total current liabilities	161,677,692	141,332,382
NOTES PAYABLE UNDER LINES OF CREDIT AND LONG-TERM DEBT, net of current portion	11,050,120	18,450,752
DEFERRED INCOME TAX LIABILITIES	34,808,000	28,136,000
DEFERRED RENT	10,295,466	9,475,254
POST-TERMINATION OBLIGATIONS, net of current portion	67,656	536,057
Total liabilities	217,898,934	197,930,445
COMMITMENTS AND CONTINGENCIES (Notes 11, 14 and 15)		
SHAREHOLDERS' EQUITY		
Milliman Inc. shareholders' equity		
Common stock, \$40 par value, 20,000 shares authorized, 10,210 and 9,950 shares issued and outstanding	408,400	398,000
Additional paid-in capital	1,633,600	1,592,000
Retained earnings	75,692,368	70,183,275
Accumulated other comprehensive loss	(1,318,917)	(616,079)
Total Milliman, Inc. shareholders' equity	76,415,451	71,557,196
Noncontrolling interest	1,205,862	1,227,918
	77,621,313	72,785,114
	\$ 295,520,247	\$ 270,715,559

MILLIMAN, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS

	Years Ended December 31,	
	2016	2015
OPERATING REVENUES, net of client expenses of \$62,807,041 and \$60,076,556, respectively	\$ 937,617,273	\$ 891,666,183
OPERATING EXPENSES	937,627,228	903,103,043
OPERATING LOSS	(9,955)	(11,436,860)
OTHER LOSS, net	(1,980,622)	(5,811,741)
INCOME FROM EQUITY METHOD INVESTEE	355,211	111,525
LOSS FROM CONTINUING OPERATIONS BEFORE INCOME TAX BENEFIT	(1,635,366)	(17,137,076)
INCOME TAX BENEFIT	968,215	5,470,000
LOSS FROM CONTINUING OPERATIONS	(667,151)	(11,667,076)
DISCONTINUED OPERATIONS (Note 2)		
Income (loss) from operations of discontinued component (including gain on disposal of \$92,268,902 for 2016)	15,282,068	(39,058)
Income tax (expense) benefit	(9,047,720)	12,000
Income (loss) from discontinued operations	6,234,348	(27,058)
NET INCOME (LOSS)	5,567,197	(11,694,134)
LESS LOSS ATTRIBUTABLE TO NONCONTROLLING INTEREST	22,056	102,630
INCOME (LOSS) ATTRIBUTABLE TO MILLIMAN, INC.	\$ 5,589,253	\$ (11,591,504)

MILLIMAN, INC.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

	Years Ended December 31,	
	2016	2015
NET INCOME (LOSS)	\$ 5,567,197	\$ (11,694,134)
OTHER COMPREHENSIVE INCOME (LOSS)		
Share of other comprehensive loss of equity method investee	(12,650)	(11,958)
Foreign currency translation adjustment	(690,188)	923,469
COMPREHENSIVE INCOME (LOSS)	<u>\$ 4,864,359</u>	<u>\$ (10,782,623)</u>

MILLIMAN, INC.
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

	Number of Shares	Common Stock	Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Noncontrolling Interest	Total
BALANCE, December 31, 2014	9,640	\$ 385,600	\$ 1,542,400	\$ 81,853,819	\$ (1,527,590)	\$ 1,330,548	\$ 83,584,777
Net loss	-	-	-	(11,591,504)	-	(102,630)	(11,694,134)
Share of other comprehensive loss of equity method investee	-	-	-	-	(11,958)	-	(11,958)
Foreign currency translation adjustment	-	-	-	-	923,469	-	923,469
Stock issued	750	30,000	120,000	-	-	-	150,000
Stock repurchased	(440)	(17,600)	(70,400)	-	-	-	(88,000)
Dividends paid (\$8 per share)	-	-	-	(79,040)	-	-	(79,040)
BALANCE, December 31, 2015	9,950	398,000	1,592,000	70,183,275	(616,079)	1,227,918	72,785,114
Net income (loss)	-	-	-	5,589,253	-	(22,056)	5,567,197
Share of other comprehensive loss of equity method investee	-	-	-	-	(12,650)	-	(12,650)
Foreign currency translation adjustment	-	-	-	-	(690,188)	-	(690,188)
Stock issued	580	23,200	92,800	-	-	-	116,000
Stock repurchased	(320)	(12,800)	(51,200)	-	-	-	(64,000)
Dividends paid (\$8 per share)	-	-	-	(80,160)	-	-	(80,160)
BALANCE, December 31, 2016	<u>10,210</u>	<u>\$ 408,400</u>	<u>\$ 1,633,600</u>	<u>\$ 75,692,368</u>	<u>\$ (1,318,917)</u>	<u>\$ 1,205,862</u>	<u>\$ 77,621,313</u>

MILLIMAN, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Years Ended December 31,	
	2016	2015
CASH FLOWS FROM OPERATING ACTIVITIES		
Net income (loss)	\$ 5,567,197	\$ (11,694,134)
Adjustments to reconcile net income (loss) to net cash provided by operating activities		
Depreciation and amortization	11,486,443	11,752,963
Deferred income taxes	6,672,000	(7,381,000)
Change in allowance for doubtful accounts	3,500,000	2,000,000
Loss on disposals of property and equipment	177,867	181,279
Income (loss) from operations of discontinued component	(15,282,068)	39,058
Earnings from equity method investee	(355,211)	(111,525)
Cash provided by (used in) changes in operating assets and liabilities		
Receivables	(14,209,658)	(11,583,440)
Prepaid expenses, deposits and other current assets	(4,815,747)	(12,462)
Income taxes receivable/payable	(3,624,000)	3,895,000
Long-term deposits	(421,430)	9,094
Cash disbursements in excess of deposits	-	(22,149,070)
Accounts payable and accrued liabilities	(2,484,640)	2,750,751
Deferred revenue	4,077,197	9,953,240
Post-termination obligations	(741,210)	(945,648)
Deferred rent	820,212	1,105,841
Net cash used in operating activities	<u>(9,633,048)</u>	<u>(22,190,053)</u>
CASH FLOWS FROM INVESTING ACTIVITIES		
Purchases of property and equipment	(5,746,174)	(10,516,839)
Net proceeds received from prior year sale of operating unit	15,282,068	-
Proceeds from disposal of property and equipment	65,898	190,111
Return of capital from equity method investee	226,663	-
Net cash used in investing activities	<u>9,828,455</u>	<u>(10,326,728)</u>
CASH FLOWS FROM FINANCING ACTIVITIES		
Proceeds from notes payable and long-term debt	134,879,921	99,940,672
Payments on notes payable and long-term debt	(123,581,761)	(75,132,960)
Proceeds from issuance of common stock	116,000	150,000
Repurchase of common stock	(64,000)	(88,000)
Dividends paid	(80,160)	(79,040)
Net cash from financing activities	<u>11,270,000</u>	<u>24,790,672</u>
EFFECTS OF FOREIGN CURRENCY TRANSLATION ON CASH	<u>(790,189)</u>	<u>923,469</u>
NET CHANGE IN CASH AND CASH EQUIVALENTS	<u>10,675,218</u>	<u>(6,802,640)</u>
CASH AND CASH EQUIVALENTS		
Beginning of year	<u>19,616,729</u>	<u>26,419,369</u>
End of year	<u>\$ 30,291,947</u>	<u>\$ 19,616,729</u>

See accompanying notes.

MILLIMAN, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1 - Organization and Summary of Significant Accounting Policies

Organization - Milliman, Inc. (the Company) is an international company that provides consulting, actuarial, and allied services, including calculation of insurance risks and premiums in the areas of life insurance, property and casualty insurance, employee benefits, and healthcare. The Company was incorporated in the state of Washington in 1957.

Principles of consolidation - The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries. All material intercompany balances and transactions have been eliminated in consolidation.

Cash and cash equivalents - The Company considers all highly liquid investments purchased with an original maturity of three months or less to be cash equivalents. The Company places its cash in high quality credit institutions. At times, cash balances may exceed Federal Deposit Insurance Corporation (FDIC) insurance limits.

Revenue recognition - Revenue is recorded as services are performed and is presented net of write-offs, estimated unbillable amounts, and expenses incurred on behalf of clients. Services rendered are generally billed on a monthly basis using fee arrangements defined at the inception of the project.

Client receivables and unbilled revenue - Client receivables consist of billed amounts due from clients. Unbilled revenue represents accumulated charges that have not been billed as of year-end. Management determines the allowance for doubtful accounts by identifying troubled accounts and by using historical experience applied to an aging of accounts. Client receivables and unbilled revenue are written off when determined to be uncollectible and recoveries of amounts previously written off are reported as income when received.

Property and equipment - Property and equipment are stated at cost, net of accumulated depreciation and amortization. Leasehold improvements are amortized utilizing the straight-line method over the shorter of the estimated useful life of the asset or respective lease term. The Company provides for depreciation of property and equipment, using the double-declining balance method over the following estimated useful lives:

Computers and electronic equipment	5 years
Telephone equipment	5 years
Office furniture	7 years

Intangible assets - Intangible assets represent customer lists and are amortized over periods from 3 to 20 years from the date of acquisition. The Company evaluates intangible assets annually for potential impairment; no impairment was noted during 2016 or 2015.

Goodwill - The Company adheres to the accounting alternative provided by FASB Accounting Standards Update No. 2014-02, *Intangibles-Goodwill and Other (Topic 350): Accounting for Goodwill (a consensus of the Private Company Council)*.

MILLIMAN, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1 - Organization and Summary of Significant Accounting Policies (continued)

Goodwill represents the difference between the purchase price of an acquired business and the fair value of the identifiable tangible and intangible net assets acquired. Under the accounting alternative, goodwill is amortized on a straight-line basis over ten years and assessed for impairment if an event or circumstances indicate that the fair value of the entity may be less than its carrying amount. A goodwill impairment loss is recognized to the extent the carrying amount of the entity including goodwill exceeds its fair value. There was no impairment of goodwill during 2016 or 2015.

Valuation of long-lived assets - The Company periodically evaluates the carrying value of its long-lived assets, including, but not limited to, property and equipment and other assets. The carrying value of a long-lived asset is considered impaired if its estimated fair value is less than its carrying value. There was no impairment of long-lived assets during 2016 or 2015.

Investments - Investments consist of equity method investments where the Company is considered to have significant influence (generally greater than 20% ownership of the investee's equity), but not control, and are carried at the cost of acquisition plus the Company's equity in undistributed earnings or losses since acquisition.

Claims loss reserve - The Company receives professional liability insurance coverage through policies written directly and through reinsurance arrangements for amounts in excess of a self-insured retention layer. Actual costs for outstanding claims may vary from estimates based on trends of losses for filed claims and claims estimated to be incurred but not yet filed. Estimated losses and costs of these self-insurance programs are accrued, based on management's best estimate of the Company's exposure. The recorded claims loss reserve liability was \$0 and \$3,330,000 at December 31, 2016 and 2015, respectively. This amount is included in accounts payable and accrued liabilities on the consolidated balance sheets (see Note 9).

Deferred revenue - Deferred revenue consists of prepayments of license fees and maintenance contracts and amounts collected from customers in advance of services provided. The revenue is recognized over the contract period, generally up to one year, on a straight-line basis.

Income taxes - The Company is a cash-basis taxpayer and accounts for income taxes using an asset and liability approach that requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the financial statement and tax basis of assets and liabilities at the applicable enacted tax rates. A valuation allowance is provided when it is more likely than not that some portion or all of the deferred tax assets will not be realized. The Company evaluates the realizability of its deferred tax assets by assessing its valuation allowance and by adjusting the amount of such allowance, if necessary.

The Company recognizes the tax benefits from uncertain tax positions only if it is more likely than not that the tax positions will be sustained on examination by the tax authorities, based on the technical merits of the position. The tax benefit is measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement.

MILLIMAN, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1 - Organization and Summary of Significant Accounting Policies (continued)

In November 2015, the FASB issued Accounting Standards Update (ASU) No. 2015-17, *Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes*, to simplify the presentation of deferred income taxes. The amendments in this standard require that deferred tax liabilities and assets be classified as noncurrent in consolidated balance sheet. The current requirement that deferred tax liabilities and assets of a tax-paying component of an entity be offset and presented as a single amount is not affected by the amendments in this standard. The Company has early adopted the new guidance for the year ended December 31, 2016. The Company also applied the guidance retrospectively, therefore, 2015 balances have been reclassified to conform to current year presentation.

Translation of foreign currencies - Assets and liabilities of foreign subsidiaries are translated to U.S. dollars at the year-end exchange rate; income and expenses are translated at the average exchange rates for the year. The related translation adjustments are reflected in the foreign currency translation line of the consolidated statements of shareholders' equity and statements of comprehensive income (loss).

Retained earnings - Included in retained earnings is undistributed capital of active equity principals, net of taxes. Future distributions of retained earnings are dependent upon board approval, future cash collections and are restricted by current debt covenants (see Note 10).

Fair value of financial instruments - Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The carrying amounts of cash and cash equivalents, client receivables, accounts payable, accrued expenses, notes payable under lines of credit and long-term debt approximate their fair values due to the short maturity or liquidity of those instruments or because the instruments are subject to variable interest rates.

Concentration of credit risk - Financial instruments which potentially subject the Company to concentrations of credit risk consist primarily of cash and cash equivalents, client receivables and unbilled revenue. Cash and cash equivalents consist of deposits and money market funds. Concentrations of credit risk with respect to client receivables and unbilled revenue are limited as the Company has a large number of clients that are dispersed across many industries and geographic areas. The Company monitors concentrations of credit risk with respect to accounts receivable by performing credit evaluations on customers and, at times, will request retainers.

Approximately 87% and 86% of the Company's revenues were generated by its United States based operations from a diverse client base during 2016 and 2015, respectively.

Sales and value-added taxes - The Company presents taxes collected from customers and remitted to governmental authorities on a net basis within the consolidated statements of operations.

Use of estimates - The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts in the consolidated financial statements and the accompanying notes. Actual results could differ from those estimates.

MILLIMAN, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1 - Organization and Summary of Significant Accounting Policies (continued)

Recent accounting pronouncements – In February 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2016-02, *Leases*, which provides new guidelines that change the accounting for leasing arrangements. ASU 2016-02 primarily changes the accounting for lessees, requiring lessees to record assets and liabilities on the balance sheet for most leases. This standard is effective for nonpublic entities for annual reporting periods beginning on or after December 15, 2019, and interim reporting periods within annual reporting periods beginning after December 15, 2020. The Company is currently evaluating the impact of the standard on the consolidated financial statements.

In August 2014, the FASB issued ASU 2014-15, *Presentation of Financial Statements—Going concern*, which provides new guidance on when and how to disclose going concern uncertainties. The new standard requires management to perform interim and annual assessments of an entity's ability to continue as a going concern within one year and to provide certain footnote disclosures if conditions or events raise substantial doubt about an entity's ability to continue as a going concern. The new standard is effective for fiscal years and interim periods within those fiscal years ending after December 15, 2016, with early adoption permitted. The adoption of this standard does not have a material impact on the consolidated financial statements.

In May 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers*, which is a comprehensive new revenue recognition standard. The new standard allows for a full retrospective approach to transition or a modified retrospective approach. This guidance is effective for nonpublic entities for annual reporting periods beginning on or after December 15, 2018, and interim reporting periods within annual reporting periods beginning after December 15, 2019. The Company is currently evaluating the impact of the standard on the consolidated financial statements.

Subsequent events - Subsequent events are events or transactions that occur after the consolidated balance sheet date but before the consolidated financial statements are issued. The Company recognizes in the consolidated financial statements the effects of all subsequent events that provide additional evidence about conditions that existed at the date of the consolidated balance sheet, including the estimates inherent in the process of preparing the consolidated financial statements. The Company's consolidated financial statements do not recognize subsequent events that provide evidence about conditions that did not exist at the date of the consolidated balance sheet but arose after the consolidated balance sheet date and before the consolidated financial statements are issued.

The Company has evaluated subsequent events through April 28, 2017, which is the date the consolidated financial statements were available to be issued.

MILLIMAN, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 2 - Discontinued Operations

Income (loss) from discontinued operations includes one operating unit reported as discontinued operations due to the Company's decision to sell the operating unit during 2012 and permanently exit the markets and customers served by these operations. The income (loss) from discontinued operations, before income tax benefit, was \$15,282,068 and (\$39,058) in 2016 and 2015, respectively.

The contingent portion of consideration from the sale, totaling approximately \$92 million, was released from escrow during 2016 and was recognized in income from discontinued operations on the consolidated statements of operations. Related expenses of approximately \$77 million were incurred, resulting in the \$15 million of income from discontinued operations referenced above.

Note 3 - Receivables

Receivables consist of the following at December 31:

	<u>2016</u>	<u>2015</u>
Client receivables	\$ 110,687,068	\$ 97,902,489
Unbilled revenue and client advances	121,954,667	120,376,348
Related party advances	<u>431,214</u>	<u>584,454</u>
	233,072,949	218,863,291
Allowance for doubtful accounts	<u>(37,000,000)</u>	<u>(33,500,000)</u>
	<u>\$ 196,072,949</u>	<u>\$ 185,363,291</u>

Note 4 - Prepaid Expenses, Deposits, and Other Current Assets

Prepaid expenses, deposits, and other current assets consist of the following at December 31:

	<u>2016</u>	<u>2015</u>
Prepaid insurance	\$ 8,843,072	\$ 8,754,853
Deposits and other assets	<u>10,023,408</u>	<u>5,195,880</u>
	<u>\$ 18,866,480</u>	<u>\$ 13,950,733</u>

MILLIMAN, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 5 - Property and Equipment

Property and equipment consist of the following at December 31:

	<u>2016</u>	<u>2015</u>
Furniture and equipment	\$ 66,541,323	\$ 67,564,097
Leasehold improvements	36,125,589	34,653,041
Construction in progress	<u>882,302</u>	<u>829,732</u>
	103,549,214	103,046,870
Accumulated depreciation and amortization	<u>(75,281,746)</u>	<u>(70,376,784)</u>
Property and equipment, net	<u><u>\$ 28,267,468</u></u>	<u><u>\$ 32,670,086</u></u>

Depreciation and amortization expense was \$10,231,798 and \$10,380,174 for 2016 and 2015, respectively.

Note 6 - Intangible Assets

The following table reflects changes in the net carrying amount of the customer lists for the years ended December 31:

	<u>2016</u>	<u>2015</u>
Gross carrying amount	\$ 11,772,207	\$ 11,772,207
Accumulated amortization	<u>(9,799,571)</u>	<u>(9,114,292)</u>
Customer lists, net	<u><u>\$ 1,972,636</u></u>	<u><u>\$ 2,657,915</u></u>

Aggregate amortization expense for customer lists was \$685,279 and \$803,423 for the years ended December 31, 2016 and 2015, respectively.

The estimated aggregate amortization expense is as follows:

2017	\$ 567,137
2018	567,137
2019	529,948
2020	115,916
2021	82,500
Thereafter	<u>109,998</u>
	<u><u>\$ 1,972,636</u></u>

MILLIMAN, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 7 - Goodwill

Goodwill consists of the following at December 31:

	<u>2016</u>	<u>2015</u>
Gross carrying amount	\$ 5,693,649	\$ 5,693,649
Accumulated amortization	<u>(2,263,888)</u>	<u>(1,694,522)</u>
Goodwill, net	<u>\$ 3,429,761</u>	<u>\$ 3,999,127</u>

Aggregate amortization expense for goodwill was \$569,366 for the years ended December 31, 2016 and 2015.

The Company expects goodwill amortization expense for each year to be as follows:

2017	\$ 569,366
2018	569,366
2019	569,366
2020	569,366
2021	569,366
Thereafter	<u>582,931</u>
	<u>\$ 3,429,761</u>

Note 8 - Investments and Advances

Professional Consultants Insurance Company, Inc. - Professional Consultants Insurance Company, Inc. (PCIC) was organized in 1987 as a captive insurance company under the laws of the State of Vermont. Through June 30, 2010, PCIC provided professional liability insurance on a claims-made basis to a group of actuarial and management consulting firms, all of which participated in the program as both policyholders and shareholders.

PCIC ceased issuing insurance policies effective July 1, 2010, based on an election by the shareholders to liquidate PCIC. Therefore, during 2016 and 2015, the Company paid no insurance premiums to PCIC. Accordingly, the Company began obtaining other insurance coverage at that time and has chosen to have a larger self-insured retention than it had under the previous structure. PCIC has been placed in run-off mode, and once all remaining claims are resolved any residual assets will be distributed to the shareholders.

As December 31, 2015, the Company had designated PCIC as the beneficiary on letters of credit totaling \$1,129,937. During 2016 these letters of credit were canceled. The Company's ownership interest in PCIC was 27% as of December 31, 2016 and 2015. The investment balance at December 31, 2016 and 2015 was \$6,062,948 and \$5,947,050, respectively, and is recorded in other assets on the consolidated balance sheets.

MILLIMAN, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 8 - Investments and Advances (continued)

The Company accounts for its investment in PCIC as an equity-method investment. The Company's proportionate share of PCIC's net profit was \$355,211 and \$111,525 in 2016 and 2015, respectively, and these amounts are included in income from equity method investee in the accompanying consolidated statements of operations.

Note 9 - Accounts Payable and Accrued Liabilities

Accounts payable and accrued liabilities consist of the following at December 31:

	<u>2016</u>	<u>2015</u>
Accounts payable	\$ 15,500,000	\$ 14,500,000
Accrued profit sharing	26,764,645	24,581,377
Accrued vacation	13,433,346	11,754,822
Claims loss reserve	-	3,330,000
Accrued bonuses	8,957,011	11,571,556
Sales and value added taxes	4,860,922	4,228,237
Tenant improvement allowance	8,770,792	9,954,348
Other	<u>3,503,707</u>	<u>4,027,953</u>
	<u><u>\$ 81,790,423</u></u>	<u><u>\$ 83,948,293</u></u>

Note 10 - Notes Payable under Lines of Credit and Long Term Debt

The Company has a line of credit that provides for maximum borrowings of \$60,000,000 at LIBOR plus 1.15% (1.92% and 1.56% at December 31, 2016 and 2015, respectively) and expires in June 2018. This line is collateralized by the Company's client receivables. This line has variable limitations on borrowings. Outstanding borrowings on this line at December 31, 2016 and 2015, were \$34,487,187 and \$16,333,394, respectively.

The Company has another revolving line of credit note with a bank to finance equipment purchases and leasehold improvements. This note provides for maximum borrowings up to \$26,000,000 and expires in June 2018. This line is collateralized by the Company's client receivables. The note bears interest at LIBOR plus 1.15% (1.92% and 1.56% at December 31, 2016 and 2015, respectively) and requires principal and interest payments monthly. The balance outstanding under this note was \$18,650,122 and \$22,405,754, which includes the current portions of \$10,000,000 and \$10,500,000, at December 31, 2016 and 2015, respectively. The current portion of this revolving line of credit note is based on management's expectations of the amount that will be paid in the following year.

The Company's credit agreements require that the Company maintain certain minimum financial ratios.

MILLIMAN, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 10 - Notes Payable under Lines of Credit and Long Term Debt (continued)

Long-term debt - On December 4, 2015, the Company signed a promissory note for \$7,700,000. The note is collateralized by the Company's client receivables and bears a variable interest rate equal to LIBOR plus 1.45%. At December 31, 2016, the interest rate equaled 2.22% and the unpaid principal balance was \$4,600,000. The agreement requires quarterly principal payments of \$385,000, and matures on January 1, 2021, however the Company made payments in excess of those required during 2016. Future principal payments on the note payable for the years ending December 31 are as follows:

2017	\$ 2,200,000
2018	2,200,000
2019	<u>200,000</u>
	<u>\$ 4,600,000</u>

Note 11 - Leases

The Company leases office space and equipment under various non-cancelable operating leases. The approximate aggregate future minimum obligations under these leases are as follows:

2017	\$ 23,798,838
2018	22,220,575
2019	21,744,448
2020	18,935,480
2021	16,628,033
Thereafter	<u>55,201,598</u>
	<u>\$ 158,528,972</u>

The Company has been granted tenant improvement allowances from various lessors. These amounts are presented as a liability on the consolidated balance sheets and amortized against rent expense over the remaining lease term. As of December 31, 2016 and 2015, the Company had \$8,770,792 and \$9,954,348, respectively, of unamortized tenant improvement allowances. Rent expense, net of tenant improvement allowances, was \$31,297,837 and \$30,208,353 in 2016 and 2015, respectively. The Company had several lease agreements, which provided for rent holidays or escalating rental payments. At December 31, 2016 and 2015, deferred rent of \$10,295,466 and 9,475,254, respectively, was recorded by the Company to account for rent escalations and will be amortized over the term of the relevant leases.

MILLIMAN, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 12 - Income Taxes

The significant temporary differences are associated with client receivables and unbilled revenue, accounts payable, accrued liabilities, deferred revenue, deferred compensation and depreciation of property and equipment. Deferred tax assets and liabilities consist of the following:

	<u>Total</u>
December 31, 2016	
Deferred tax assets	\$ 43,083,000
Deferred tax liabilities	<u>(77,891,000)</u>
Net deferred income tax liability	<u><u>\$(34,808,000)</u></u>
December 31, 2015	
Deferred tax assets	\$ 50,968,000
Deferred tax liabilities	<u>(79,104,000)</u>
Net deferred income tax liability	<u><u>\$(28,136,000)</u></u>

For primarily all deferred tax assets, no valuation allowance is deemed necessary, based upon the estimated future taxable income from the reversal of existing temporary differences. The Company does have an insignificant valuation allowance related to certain foreign tax credits that expire through 2020.

The components of income tax expense (benefit) were as follows:

	<u>2016</u>	<u>2015</u>
Current	\$ 1,407,505	\$ 1,899,000
Deferred	<u>6,672,000</u>	<u>(7,381,000)</u>
	<u><u>\$ 8,079,505</u></u>	<u><u>\$ (5,482,000)</u></u>

A reconciliation between the income tax provision at statutory rates and the recorded provision is as follows for the years ended December 31:

	<u>2016</u>	<u>2015</u>
Income tax provision at statutory rate	\$ 4,777,000	\$ (6,010,000)
Permanent differences	1,435,000	(823,000)
Other	2,026,000	1,695,000
Valuation allowance	(154,000)	110,000
State tax expense, net of federal benefit	493,505	(498,000)
Change in state effective rate	<u>(498,000)</u>	<u>44,000</u>
	<u><u>\$ 8,079,505</u></u>	<u><u>\$ (5,482,000)</u></u>

MILLIMAN, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 12 - Income Taxes (continued)

The Company had no liability for uncertain tax positions as of December 31, 2016 and 2015. The Company recognizes interest accrued and penalties related to uncertain tax positions as a component of tax expense. During the years ended December 31, 2016 and 2015, the Company recognized no interest and penalties.

The Company files income tax returns in the U.S. federal jurisdiction and various state jurisdictions. Generally, the Company is subject to examination by U.S. federal (or state and local) income tax authorities for three years from the filing of a tax return.

Note 13 – Deferred Revenue

Deferred revenue consists of the following at December 31:

	<u>2016</u>	<u>2015</u>
Prepayments of licensing fees and maintenance contracts	\$ 17,013,212	\$ 11,820,282
Amounts collected from customers in advance of services provided	<u>15,720,056</u>	<u>16,835,789</u>
	<u><u>\$ 32,733,268</u></u>	<u><u>\$ 28,656,071</u></u>

Note 14 - Commitments and Contingencies

Contingent payments – The Company periodically acquires business from external entities and typically agrees to pay the seller a fixed percentage of revenues generated from future services for a specific time period. The Company may also agree to pay retiring equity principals a percentage of revenue earned from those equity principal's former client base after retirement. At December 31, 2016, there were several agreements in place to pay a percentage of future revenues earned to retired equity principals with the last expiration date for payment being June 2026. During 2016 and 2015, the Company made payments to the retired equity principals of \$21,500,086 and \$19,569,920, respectively.

Legal matters - The Company is involved from time to time in claims, proceedings and litigation arising from its business and property ownership. The Company does not believe that any such claims, proceedings or litigation, either alone or in the aggregate, will have a material adverse effect on the Company's financial position or results of its operations.

MILLIMAN, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 15 - Post-Termination Obligations

The Company has agreed to pay certain former equity principals various amounts subsequent to the termination of their employment. These future payments are based on an allocated share of the Company's retained earnings to the retiring equity principal's former profit center. The allocations are typically based on unbilled revenues, uncollected client receivables, expenses and commitments arising through the date of termination. These amounts typically bear interest at variable rates consistent with market terms of which the current rates range from 2.0% to 6.0%. Balances are payable at termination in equal monthly payments over five years, or as a lump sum once all unbilled revenues and client receivables have been realized. The aggregate amount of such commitments is recorded as a liability upon authorization and quantification by the Company's Board of Directors and totaled \$534,470 and \$1,275,680 at December 31, 2016 and 2015, respectively. The carrying amount of these obligations approximates their fair value.

Upon retirement, an equity principal can be paid from 7% to 10% of future revenues collected from his or her former client base. These contingent payments generally extend for seven to ten years and are expensed when the related revenue is recognized (see Note 14).

Note 16 - Profit Sharing Plan

The Company has a non-discriminatory, defined contribution profit sharing plan (the Plan) for U.S. employees. Contributions to the Plan are discretionary and are determined annually by the Board of Directors of the Company. Participants are also allowed to make voluntary contributions, to which the Company matches 50% thereof, up to a certain percentage of an employee's annual salary. During 2016 and 2015, the Company's expense related to the Plan was approximately \$33,500,000 and \$32,250,000, respectively.

Note 17 - Related Party Transactions

The Company has advances to employees and other related parties of \$431,214 and \$584,454 as of December 31, 2016 and 2015, respectively (see Note 3).

Note 18 - Supplemental Cash Flow Information

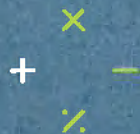
Cash paid and expensed for interest during 2016 and 2015 was \$1,193,985 and \$1,554,968, respectively. The Company made income tax payments of \$3,699,378 and \$1,820,000 during 2016 and 2015, respectively.

MILLIMAN, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 19 - Supplemental Operating Expense Information

Operating expenses consist of the following at December 31:

	<u>2016</u>	<u>2015</u>
Employee compensation	\$ 605,359,123	\$ 590,855,844
Employee benefits	69,074,128	59,379,589
Rent	31,297,837	30,208,353
Depreciation/amortization	11,486,443	11,752,963
Other	<u>220,409,697</u>	<u>210,906,294</u>
Total operating expenses	<u>\$ 937,627,228</u>	<u>\$ 903,103,043</u>



REPORT OF INDEPENDENT AUDITORS AND
CONSOLIDATED FINANCIAL STATEMENTS

MILLIMAN, INC.

December 31, 2017 and 2016



MOSSADAMS

Table of Contents

	PAGE
Report of Independent Auditors	1–2
Consolidated Financial Statements	
Consolidated balance sheets	3
Consolidated statements of operations	4
Consolidated statements of comprehensive income (loss)	5
Consolidated statements of changes in shareholders' equity	6
Consolidated statements of cash flows	7
Notes to consolidated financial statements	8–19



Report of Independent Auditors

To the Shareholders of
Milliman, Inc.

Report on the Consolidated Financial Statements

We have audited the accompanying consolidated financial statements of Milliman, Inc., which comprise the consolidated balance sheets as of December 31, 2017 and 2016, and the related consolidated statements of operations, comprehensive income (loss), shareholders' equity, and cash flows for the years then ended, and the related notes to the consolidated financial statements.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Milliman, Inc. as of December 31, 2017 and 2016, and the results of its operations and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Mass Adams LLP

Seattle, Washington
April 25, 2018

Milliman, Inc.
Consolidated Balance Sheets

ASSETS		December 31,	
		2017	2016
CURRENT ASSETS			
Cash and cash equivalents	\$	43,342,670	\$ 30,291,947
Receivables, net		197,531,004	196,072,949
Prepaid expenses, deposits, and other current assets		17,115,600	18,866,480
Income tax receivable		3,675,000	6,789,000
Total current assets		261,664,274	252,020,376
PROPERTY AND EQUIPMENT, net		34,548,384	28,267,468
INTANGIBLE ASSETS, net		1,405,499	1,972,636
GOODWILL, net		2,860,395	3,429,761
OTHER ASSETS			
Investments		4,513,713	6,062,948
Long-term deposits		4,047,356	3,767,058
Total other assets		8,561,069	9,830,006
	\$	309,039,621	\$ 295,520,247
LIABILITIES AND SHAREHOLDERS' EQUITY			
CURRENT LIABILITIES			
Accounts payable and accrued liabilities	\$	118,773,893	\$ 82,324,893
Current portion of notes payable under lines of credit and long-term debt		38,722,295	46,687,187
Deferred revenue		38,388,436	32,733,268
Total current liabilities		195,884,624	161,745,348
NOTES PAYABLE UNDER LINES OF CREDIT AND LONG-TERM DEBT, net of current portion		10,863,785	11,050,120
DEFERRED INCOME TAX LIABILITIES		18,676,000	34,808,000
DEFERRED RENT		11,741,350	10,295,466
Total liabilities		237,165,759	217,898,934
COMMITMENTS AND CONTINGENCIES (Notes 11 and 14)			
SHAREHOLDERS' EQUITY			
Milliman Inc. shareholders' equity			
Common stock, \$40 par value, 20,000 shares authorized, 10,550 and 10,210 shares issued and outstanding		422,000	408,400
Additional paid-in capital		1,688,000	1,633,600
Retained earnings		70,210,228	75,692,368
Accumulated other comprehensive loss		(1,631,216)	(1,318,917)
Total Milliman, Inc. shareholders' equity		70,689,012	76,415,451
Noncontrolling interest		1,184,850	1,205,862
		71,873,862	77,621,313
	\$	309,039,621	\$ 295,520,247

Milliman, Inc.
Consolidated Statements of Operations

	Years Ended December 31,	
	2017	2016
OPERATING REVENUES, net of client expenses of \$62,241,555 and \$62,807,041, respectively	\$ 998,633,269	\$ 937,617,273
OPERATING EXPENSES	1,017,147,867	937,627,228
OPERATING LOSS	(18,514,598)	(9,955)
OTHER INCOME (LOSS), net	495,725	(1,980,622)
INCOME FROM EQUITY METHOD INVESTEE	54,481	355,211
LOSS FROM CONTINUING OPERATIONS BEFORE INCOME TAX BENEFIT	(17,964,392)	(1,635,366)
INCOME TAX BENEFIT	12,545,000	968,215
LOSS FROM CONTINUING OPERATIONS	(5,419,392)	(667,151)
DISCONTINUED OPERATIONS (Note 2)		
Income from operations of discontinued component (including gain on disposal of \$92,268,902 for 2016)	-	15,282,068
Income tax expense	-	(9,047,720)
Income from discontinued operations	-	6,234,348
NET INCOME (LOSS)	(5,419,392)	5,567,197
LESS LOSS ATTRIBUTABLE TO NONCONTROLLING INTEREST	21,012	22,056
INCOME (LOSS) ATTRIBUTABLE TO MILLIMAN, INC.	\$ (5,398,380)	\$ 5,589,253

Milliman, Inc.

Consolidated Statements of Comprehensive Income (Loss)

	Years Ended December 31,	
	2017	2016
NET INCOME (LOSS)	\$ (5,419,392)	\$ 5,567,197
OTHER COMPREHENSIVE LOSS		
Share of other comprehensive loss of equity method investee	(11,914)	(12,650)
Foreign currency translation adjustment	(300,385)	(690,188)
COMPREHENSIVE INCOME (LOSS)	<u>\$ (5,731,691)</u>	<u>\$ 4,864,359</u>

Milliman, Inc.
Consolidated Statements of Changes in Shareholders' Equity

	Number of Shares	Common Stock	Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Noncontrolling Interest	Total
BALANCE, December 31, 2015	9,950	\$ 398,000	\$ 1,592,000	\$ 70,183,275	\$ (616,079)	\$ 1,227,918	\$ 72,785,114
Net income (loss)	-	-	-	5,589,253	-	(22,056)	5,567,197
Share of other comprehensive loss of equity method investee	-	-	-	-	(12,650)	-	(12,650)
Foreign currency translation adjustment	-	-	-	-	(690,188)	-	(690,188)
Stock issued	580	23,200	92,800	-	-	-	116,000
Stock repurchased	(320)	(12,800)	(51,200)	-	-	-	(64,000)
Dividends paid (\$8 per share)	-	-	-	(80,160)	-	-	(80,160)
BALANCE, December 31, 2016	10,210	408,400	1,633,600	75,692,368	(1,318,917)	1,205,862	77,621,313
Net loss	-	-	-	(5,398,380)	-	(21,012)	(5,419,392)
Share of other comprehensive loss of equity method investee	-	-	-	-	(11,914)	-	(11,914)
Foreign currency translation adjustment	-	-	-	-	(300,385)	-	(300,385)
Stock issued	890	35,600	142,400	-	-	-	178,000
Stock repurchased	(550)	(22,000)	(88,000)	-	-	-	(110,000)
Dividends paid (\$8 per share)	-	-	-	(83,760)	-	-	(83,760)
BALANCE, December 31, 2017	<u>10,550</u>	<u>\$ 422,000</u>	<u>\$ 1,688,000</u>	<u>\$ 70,210,228</u>	<u>\$ (1,631,216)</u>	<u>\$ 1,184,850</u>	<u>\$ 71,873,862</u>

Milliman, Inc.
Consolidated Statements of Cash Flows

	Years Ended December 31,	
	2017	2016
CASH FLOWS FROM OPERATING ACTIVITIES		
Net income (loss)	\$ (5,419,392)	\$ 5,567,197
Adjustments to reconcile net income (loss) to net cash provided by operating activities		
Depreciation and amortization	10,643,646	11,486,443
Deferred income taxes	(16,132,000)	6,672,000
Change in allowance for doubtful accounts	1,500,000	3,500,000
Loss on disposals of property and equipment	239,377	177,867
Income from operations of discontinued component	-	(15,282,068)
Earnings from equity method investee	(54,481)	(355,211)
Cash provided by (used in) changes in operating assets and liabilities		
Receivables	(2,958,055)	(14,209,658)
Prepaid expenses, deposits and other current assets	1,750,880	(4,815,747)
Income taxes receivable/payable	3,114,000	(3,624,000)
Long-term deposits	(280,298)	(421,430)
Accounts payable and accrued liabilities	30,305,877	(3,225,850)
Deferred revenue	5,655,168	4,077,197
Deferred rent	1,445,884	820,212
Net cash from (used in) operating activities	<u>29,810,606</u>	<u>(9,633,048)</u>
CASH FLOWS FROM INVESTING ACTIVITIES		
Purchases of property and equipment	(9,884,313)	(5,746,174)
Net proceeds received from prior year sale of operating unit	-	15,282,068
Proceeds from disposal of property and equipment	-	65,898
Investments and advances	(36,109)	-
Return of capital from equity method investee	1,627,911	226,663
Net cash from (used in) investing activities	<u>(8,292,511)</u>	<u>9,828,455</u>
CASH FLOWS FROM FINANCING ACTIVITIES		
Proceeds from notes payable and long-term debt	146,017,394	134,879,921
Payments on notes payable and long-term debt	(154,168,621)	(123,581,761)
Proceeds from issuance of common stock	178,000	116,000
Repurchase of common stock	(110,000)	(64,000)
Dividends paid	(83,760)	(80,160)
Net cash from (used in) financing activities	<u>(8,166,987)</u>	<u>11,270,000</u>
EFFECTS OF FOREIGN CURRENCY TRANSLATION ON CASH	<u>(300,385)</u>	<u>(790,189)</u>
NET CHANGE IN CASH AND CASH EQUIVALENTS	<u>13,050,723</u>	<u>10,675,218</u>
CASH AND CASH EQUIVALENTS		
Beginning of year	<u>30,291,947</u>	<u>19,616,729</u>
End of year	<u>\$ 43,342,670</u>	<u>\$ 30,291,947</u>

See accompanying notes.

Milliman, Inc.

Notes to Consolidated Financial Statements

Note 1 – Organization and Summary of Significant Accounting Policies

Organization – Milliman, Inc. (the Company) is an international company that provides consulting, actuarial, and allied services, including calculation of insurance risks and premiums in the areas of life insurance, property and casualty insurance, employee benefits, and healthcare. The Company was incorporated in the state of Washington in 1957.

Principles of consolidation – The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries. All material intercompany balances and transactions have been eliminated in consolidation.

Cash and cash equivalents – The Company considers all highly liquid investments purchased with an original maturity of three months or less to be cash equivalents. The Company places its cash in high quality credit institutions. At times, cash balances may exceed Federal Deposit Insurance Corporation (FDIC) insurance limits.

Revenue recognition – Revenue is recorded as services are performed and is presented net of write-offs, estimated unbillable amounts, and expenses incurred on behalf of clients. Services rendered are generally billed on a monthly basis using fee arrangements defined at the inception of the project.

Client receivables and unbilled revenue – Client receivables consist of billed amounts due from clients. Unbilled revenue represents accumulated charges that have not been billed as of year-end. Management determines the allowance for doubtful accounts by identifying troubled accounts and by using historical experience applied to an aging of accounts. Client receivables and unbilled revenue are written off when determined to be uncollectible and recoveries of amounts previously written off are reported as income when received.

Property and equipment – Property and equipment are stated at cost, net of accumulated depreciation and amortization. Leasehold improvements are amortized utilizing the straight-line method over the shorter of the estimated useful life of the asset or respective lease term. The Company provides for depreciation of property and equipment, using the double-declining balance method over the following estimated useful lives:

Computers and electronic equipment	5 years
Telephone equipment	5 years
Office furniture	7 years

Intangible assets – Intangible assets represent customer lists and are amortized over periods from 3 to 20 years from the date of acquisition. The Company evaluates intangible assets annually for potential impairment; no impairment was noted during 2017 or 2016.

Goodwill – The Company adheres to the accounting alternative provided by Financial Account Standards Board (FASB) Accounting Standards Update No. 2014-02, *Intangibles-Goodwill and Other (Topic 350): Accounting for Goodwill (a consensus of the Private Company Council)*.

Note 1 – Organization and Summary of Significant Accounting Policies (continued)

Goodwill represents the difference between the purchase price of an acquired business and the fair value of the identifiable tangible and intangible net assets acquired. Under the accounting alternative, goodwill is amortized on a straight-line basis over ten years and assessed for impairment if an event or circumstances indicate that the fair value of the entity may be less than its carrying amount. A goodwill impairment loss is recognized to the extent the carrying amount of the entity including goodwill exceeds its fair value. There was no impairment of goodwill during 2017 or 2016.

Valuation of long-lived assets – The Company periodically evaluates the carrying value of its long-lived assets, including, but not limited to, property and equipment, intangible assets and other assets. The carrying value of a long-lived asset is considered impaired if its estimated fair value is less than its carrying value. There was no impairment of long-lived assets during 2017 or 2016.

Investments – Investments consist of equity method investments where the Company is considered to have significant influence (generally greater than 20% ownership of the investee's equity), but not control, and are carried at the cost of acquisition plus the Company's equity in undistributed earnings or losses since acquisition.

Claims loss reserve – The Company receives professional liability insurance coverage through policies written directly and through reinsurance arrangements for amounts in excess of a self-insured retention layer. Actual costs for outstanding claims may vary from estimates based on trends of losses for filed claims and claims estimated to be incurred but not yet filed. Estimated losses and costs of these self-insurance programs are accrued, based on management's best estimate of the Company's exposure. The recorded claims loss reserve liability was \$13,000,000 and \$0 at December 31, 2017 and 2016, respectively. This amount is included in accounts payable and accrued liabilities on the consolidated balance sheets (see Note 9).

Deferred revenue – Deferred revenue consists of prepayments of license fees and maintenance contracts and amounts collected from customers in advance of services provided. The revenue is recognized over the contract period, generally up to one year, on a straight-line basis.

Income taxes – The Company is a cash-basis taxpayer and accounts for income taxes using an asset and liability approach that requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the financial statement and tax basis of assets and liabilities at the applicable enacted tax rates. A valuation allowance is provided when it is more likely than not that some portion or all of the deferred tax assets will not be realized. The Company evaluates the realizability of its deferred tax assets by assessing its valuation allowance and by adjusting the amount of such allowance, if necessary.

The Company recognizes the tax benefits from uncertain tax positions only if it is more likely than not that the tax positions will be sustained on examination by the tax authorities, based on the technical merits of the position. The tax benefit is measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement.

Milliman, Inc.

Notes to Consolidated Financial Statements

Note 1 – Organization and Summary of Significant Accounting Policies (continued)

In November 2015, the FASB issued Accounting Standards Update (ASU) No. 2015-17, *Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes*, to simplify the presentation of deferred income taxes. The amendments in this standard require that deferred tax liabilities and assets be classified as noncurrent in consolidated balance sheets. The current requirement that deferred tax liabilities and assets of a tax-paying component of an entity be offset and presented as a single amount is not affected by the amendments in this standard. The Company early adopted the new guidance for the year ended December 31, 2016.

Translation of foreign currencies – Assets and liabilities of foreign subsidiaries are translated to U.S. dollars at the year-end exchange rate; income and expenses are translated at the average exchange rates for the year. The related translation adjustments are reflected in the foreign currency translation line of the consolidated statements of shareholders' equity and statements of comprehensive income (loss).

Retained earnings – Included in retained earnings is undistributed capital of active equity principals, net of taxes. Future distributions of retained earnings are dependent upon board approval, future cash collections and are restricted by current debt covenants (see Note 10).

Fair value of financial instruments – Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The carrying amounts of cash and cash equivalents, client receivables, accounts payable, accrued expenses, notes payable under lines of credit and long-term debt approximate their fair values due to the short maturity or liquidity of those instruments or because the instruments are subject to variable interest rates.

Concentration of credit risk – Financial instruments which potentially subject the Company to concentrations of credit risk consist primarily of cash and cash equivalents, client receivables and unbilled revenue. Cash and cash equivalents consist of deposits and money market funds. Concentrations of credit risk with respect to client receivables and unbilled revenue are limited as the Company has a large number of clients that are dispersed across many industries and geographic areas. The Company monitors concentrations of credit risk with respect to accounts receivable by performing credit evaluations on customers and, at times, will request retainers.

Approximately 88% and 87% of the Company's revenues were generated by its United States based operations from a diverse client base during 2017 and 2016, respectively.

Sales and value-added taxes – The Company presents taxes collected from customers and remitted to governmental authorities on a net basis within the consolidated statements of operations.

Use of estimates – The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts in the consolidated financial statements and the accompanying notes. Actual results could differ from those estimates.

Note 1 – Organization and Summary of Significant Accounting Policies (continued)

Recent accounting pronouncements – In February 2016, the FASB issued Accounting Standards Update (ASU) No. 2016-02, *Leases*, which provides new guidelines that change the accounting for leasing arrangements. ASU 2016-02 primarily changes the accounting for lessees, requiring lessees to record assets and liabilities on the balance sheet for most leases. This standard is effective for nonpublic entities for annual reporting periods beginning on or after December 15, 2019, and interim reporting periods within annual reporting periods beginning after December 15, 2020. The Company is currently evaluating the impact of the standard on the consolidated financial statements.

In May 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers*, which is a comprehensive new revenue recognition standard. This guidance is effective for nonpublic entities for annual reporting periods beginning on or after December 15, 2018, and interim reporting periods within annual reporting periods beginning after December 15, 2019. The Company is currently evaluating the impact of the standard on the consolidated financial statements.

Subsequent events – Subsequent events are events or transactions that occur after the consolidated balance sheet date but before the consolidated financial statements are available to be issued. The Company recognizes in the consolidated financial statements the effects of all subsequent events that provide additional evidence about conditions that existed at the date of the consolidated balance sheet, including the estimates inherent in the process of preparing the consolidated financial statements. The Company's consolidated financial statements do not recognize subsequent events that provide evidence about conditions that did not exist at the date of the consolidated balance sheet but arose after the consolidated balance sheet date and before the consolidated financial statements are available to be issued.

The Company has evaluated subsequent events through April 25, 2018, which is the date the consolidated financial statements were available to be issued.

Note 2 – Discontinued Operations

Income from discontinued operations includes one operating unit reported as discontinued operations due to the Company's decision to sell the operating unit during 2012 and permanently exit the markets and customers served by these operations. The income from discontinued operations, before income tax benefit, was \$0 and \$15,282,068 in 2017 and 2016, respectively.

Milliman, Inc.
Notes to Consolidated Financial Statements

Note 3 – Receivables

Receivables consist of the following at December 31:

	<u>2017</u>	<u>2016</u>
Client receivables	\$ 110,126,446	\$ 110,687,068
Unbilled revenue and client advances	125,492,702	121,954,667
Related party advances	<u>411,856</u>	<u>431,214</u>
	236,031,004	233,072,949
Allowance for doubtful accounts	<u>(38,500,000)</u>	<u>(37,000,000)</u>
	<u><u>\$ 197,531,004</u></u>	<u><u>\$ 196,072,949</u></u>

Note 4 – Prepaid Expenses, Deposits, and Other Current Assets

Prepaid expenses, deposits, and other current assets consist of the following at December 31:

	<u>2017</u>	<u>2016</u>
Prepaid insurance	\$ 8,512,974	\$ 8,843,072
Deposits and other assets	<u>8,602,626</u>	<u>10,023,408</u>
	<u><u>\$ 17,115,600</u></u>	<u><u>\$ 18,866,480</u></u>

Note 5 – Property and Equipment

Property and equipment consist of the following at December 31:

	<u>2017</u>	<u>2016</u>
Furniture and equipment	\$ 66,679,765	\$ 66,541,323
Leasehold improvements	41,384,593	36,125,589
Construction in progress	<u>3,619,524</u>	<u>882,302</u>
	111,683,882	103,549,214
Accumulated depreciation and amortization	<u>(77,135,498)</u>	<u>(75,281,746)</u>
Property and equipment, net	<u><u>\$ 34,548,384</u></u>	<u><u>\$ 28,267,468</u></u>

Depreciation and amortization expense was \$9,507,143 and \$10,231,798 for 2017 and 2016, respectively.

Milliman, Inc.
Notes to Consolidated Financial Statements

Note 6 – Intangible Assets

The following table reflects changes in the net carrying amount of the customer lists for the years ended December 31:

	<u>2017</u>	<u>2016</u>
Gross carrying amount	\$ 11,772,207	\$ 11,772,207
Accumulated amortization	<u>(10,366,708)</u>	<u>(9,799,571)</u>
Customer lists, net	<u>\$ 1,405,499</u>	<u>\$ 1,972,636</u>

Aggregate amortization expense for customer lists was \$567,137 and \$685,279 for the years ended December 31, 2017 and 2016, respectively.

The Company expects amortization expense for each year to be as follows:

2018	\$ 567,137
2019	529,948
2020	115,916
2021	82,500
2022	82,500
Thereafter	<u>27,498</u>
	<u>\$ 1,405,499</u>

Note 7 – Goodwill

Goodwill consists of the following at December 31:

	<u>2017</u>	<u>2016</u>
Gross carrying amount	\$ 5,693,649	\$ 5,693,649
Accumulated amortization	<u>(2,833,254)</u>	<u>(2,263,888)</u>
Goodwill, net	<u>\$ 2,860,395</u>	<u>\$ 3,429,761</u>

Aggregate amortization expense for goodwill was \$569,366 for the years ended December 31, 2017 and 2016.

Milliman, Inc.
Notes to Consolidated Financial Statements

Note 7 – Goodwill (continued)

The Company expects goodwill amortization expense for each year to be as follows:

2018	\$	569,366
2019		569,366
2020		569,366
2021		569,366
2022		569,366
Thereafter		<u>13,565</u>
	\$	<u>2,860,395</u>

Note 8 – Investments and Advances

Professional Consultants Insurance Company, Inc. – Professional Consultants Insurance Company, Inc. (PCIC) was organized in 1987 as a captive insurance company under the laws of the State of Vermont. Through June 30, 2010, PCIC provided professional liability insurance on a claims-made basis to a group of actuarial and management consulting firms, all of which participated in the program as both policyholders and shareholders.

PCIC ceased issuing insurance policies effective July 1, 2010, based on an election by the shareholders to liquidate PCIC. Therefore, during 2017 and 2016, the Company paid no insurance premiums to PCIC. Accordingly, the Company began obtaining other insurance coverage at that time and has chosen to have a larger self-insured retention than it had under the previous structure. PCIC has been placed in run-off mode, and once all remaining claims are resolved any residual assets will be distributed to the shareholders.

The Company's ownership interest in PCIC was 27.13% as of December 31, 2017 and 2016. The investment balance at December 31, 2017 and 2016 was \$4,477,600 and \$6,062,948, respectively, and is recorded in other assets on the consolidated balance sheets.

The Company accounts for its investment in PCIC as an equity-method investment. The Company's proportionate share of PCIC's net profit was \$54,481 and \$355,211 in 2017 and 2016, respectively, and these amounts are included in income from equity method investee in the accompanying consolidated statements of operations.

Milliman, Inc.
Notes to Consolidated Financial Statements

Note 9 – Accounts Payable and Accrued Liabilities

Accounts payable and accrued liabilities consist of the following at December 31:

	2017	2016
Accounts payable	\$ 18,500,000	\$ 15,500,000
Accrued profit sharing	27,166,191	26,764,645
Accrued vacation	15,182,558	13,433,346
Accrued bonuses	20,344,631	8,957,011
Sales and value added taxes	4,776,389	4,860,922
Tenant improvement allowance	13,225,753	8,770,792
Claims Loss Reserve	13,000,000	-
Other	6,578,371	4,038,177
	<u>\$ 118,773,893</u>	<u>\$ 82,324,893</u>

Note 10 – Notes Payable under Lines of Credit and Long Term Debt

The Company has a line of credit that provides for maximum borrowings of \$85,000,000 at LIBOR plus 1.15% (2.52% and 1.92% at December 31, 2017 and 2016, respectively) and expires in June 2019. This line is collateralized by the Company's client receivables. This line has variable limitations on borrowings. Outstanding borrowings on this line at December 31, 2017 and 2016, were \$29,382,294 and \$34,487,187, respectively.

The Company has another revolving line of credit note with a bank to finance equipment purchases and leasehold improvements. This note provides for maximum borrowings up to \$26,000,000 and expires in June 2019. This line is collateralized by the Company's client receivables. The note bears interest at LIBOR plus 1.15% (2.52% and 1.92% at December 31, 2017 and 2016, respectively) and requires principal and interest payments monthly. The balance outstanding under this note was \$17,953,786 and \$18,650,122, which includes the current portions of \$7,800,000 and \$10,000,000, at December 31, 2017 and 2016, respectively. The current portion of this revolving line of credit note is based on management's expectations of the amount that will be paid in the following year.

The Company's credit agreements require that the Company maintain certain minimum financial ratios.

Long-term debt – On December 4, 2015, the Company signed a promissory note for \$7,700,000. The note is collateralized by the Company's client receivables and bears a variable interest rate equal to LIBOR plus 1.45%. At December 31, 2017, the interest rate equaled 2.82% and the unpaid principal balance was \$2,250,000. The agreement requires quarterly principal payments of \$385,000, and matures on January 1, 2021; however, the Company made payments in excess of those required during 2017. Future principal payments on the note payable for the years ending December 31 include \$1,540,000 for 2018 and \$710,000 for 2019.

Milliman, Inc.

Notes to Consolidated Financial Statements

Note 11 – Leases

The Company leases office space and equipment under various non-cancelable operating leases. The aggregate future minimum obligations under these leases are as follows:

2018	\$ 26,573,125
2019	26,405,464
2020	23,114,510
2021	20,688,801
2022	17,601,281
Thereafter	<u>61,310,458</u>
	<u>\$ 175,693,639</u>

The Company has been granted tenant improvement allowances from various lessors. These amounts are presented as a liability on the consolidated balance sheets and amortized against rent expense over the remaining lease term. As of December 31, 2017 and 2016, the Company had \$13,225,753 and \$8,770,792, respectively, of unamortized tenant improvement allowances. Rent expense, net of tenant improvement allowances, was \$32,250,298 and \$31,297,837 in 2017 and 2016, respectively. The Company had several lease agreements, which provided for rent holidays or escalating rental payments. At December 31, 2017 and 2016, deferred rent of \$11,741,350 and \$10,295,466, respectively, was recorded by the Company to account for rent escalations and will be amortized over the term of the relevant leases.

Note 12 – Income Taxes

The significant temporary differences are associated with client receivables and unbilled revenue, accounts payable, accrued liabilities, deferred revenue, deferred compensation and depreciation of property and equipment.

On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act (the "Tax Act"). The Tax Act incorporates broad and complex changes to the U.S. tax code. The main provision of the Tax Act that is applicable to the Company is the reduction of a maximum federal tax rate of 35% to a flat tax rate of 21%, effective January 1, 2018. The Company has incorporated the change in federal tax rates in its annual tax provision. Consequently, the Company has recorded a decrease in net deferred tax liabilities of \$16,132,000 with a corresponding net adjustment to deferred income tax benefit of \$11,749,000.

Milliman, Inc.
Notes to Consolidated Financial Statements

Note 12 – Income Taxes (continued)

Deferred tax assets and liabilities consist of the following:

	<u>Total</u>
December 31, 2017	
Deferred tax assets	\$ 31,607,000
Deferred tax liabilities	<u>(50,283,000)</u>
Net deferred income tax liability	<u>\$ (18,676,000)</u>
December 31, 2016	
Deferred tax assets	\$ 43,083,000
Deferred tax liabilities	<u>(77,891,000)</u>
Net deferred income tax liability	<u>\$ (34,808,000)</u>

For primarily all deferred tax assets, no valuation allowance is deemed necessary, based upon the estimated future taxable income from the reversal of existing temporary differences. The Company does have an insignificant valuation allowance related to certain foreign tax credits that expire through 2020.

The components of income tax expense (benefit) were as follows:

	<u>2017</u>	<u>2016</u>
Current	\$ 3,587,000	\$ 1,407,505
Deferred	<u>(16,132,000)</u>	<u>6,672,000</u>
	<u>\$ (12,545,000)</u>	<u>\$ 8,079,505</u>

A reconciliation between the income tax provision at statutory rates and the recorded provision is as follows for the years ended December 31:

	<u>2017</u>	<u>2016</u>
Income tax provision at statutory rate	\$ (6,287,000)	\$ 4,777,000
Permanent differences	1,586,000	1,435,000
Change in federal rate	(11,749,000)	-
Other	2,897,000	2,026,000
Valuation allowance	1,844,000	(154,000)
State tax provision, net of federal provision	(632,000)	493,505
Change in state effective rate	<u>(204,000)</u>	<u>(498,000)</u>
	<u>\$ (12,545,000)</u>	<u>\$ 8,079,505</u>

Milliman, Inc.

Notes to Consolidated Financial Statements

Note 12 – Income Taxes (continued)

The Company had no liability for uncertain tax positions as of December 31, 2017 and 2016. The Company recognizes interest accrued and penalties related to uncertain tax positions as a component of tax expense. During the years ended December 31, 2017 and 2016, the Company recognized no interest and penalties.

The Company files income tax returns in the U.S. federal jurisdiction and various state jurisdictions.

Note 13 – Deferred Revenue

Deferred revenue consists of the following at December 31:

	<u>2017</u>	<u>2016</u>
Prepayments of licensing fees and maintenance contracts	\$ 22,775,392	\$ 17,013,212
Amounts collected from customers in advance of services provided	<u>15,613,044</u>	<u>15,720,056</u>
	<u>\$ 38,388,436</u>	<u>\$ 32,733,268</u>

Note 14 – Commitments and Contingencies

Contingent payments – The Company periodically acquires business from external entities and typically agrees to pay the seller a fixed percentage of revenues generated from future services for a specific time period. The Company may also agree to pay retiring equity principals a percentage of revenue earned from those equity principal's former client base after retirement. At December 31, 2017, there were several agreements in place to pay a percentage of future revenues earned to retired equity principals with the last expiration date for payment being Dec 2027. During 2017 and 2016, the Company made payments to the retired equity principals of \$25,030,283 and \$21,500,086, respectively.

Legal matters – The Company is involved from time to time in claims, proceedings and litigation arising from its business and property ownership. The Company does not believe that any such claims, proceedings or litigation, either alone or in the aggregate, will have a material adverse effect on the Company's financial position or results of its operations.

Milliman, Inc.
Notes to Consolidated Financial Statements

Note 15 – Profit Sharing Plan

The Company has a non-discriminatory, defined contribution profit sharing plan (the Plan) for U.S. employees. Contributions to the Plan are discretionary and are determined annually by the Board of Directors of the Company. Participants are also allowed to make voluntary contributions, to which the Company matches 50% thereof, up to a certain percentage of an employee's annual salary. During 2017 and 2016, the Company's expense related to the Plan was approximately \$34,500,000 and \$33,500,000, respectively.

Note 16 – Related Party Transactions

The Company has advances to employees and other related parties of \$411,856 and \$431,214 as of December 31, 2017 and 2016, respectively (see Note 3).

Note 17 – Supplemental Cash Flow Information

Cash paid for interest during 2017 and 2016 was \$891,619 and \$1,193,985, respectively. The Company made income tax payments of \$228,000 and \$3,699,378 during 2017 and 2016, respectively.

Note 18 – Supplemental Operating Expense Information

Operating expenses consist of the following at December 31:

	<u>2017</u>	<u>2016</u>
Employee compensation	\$ 640,479,822	\$ 605,359,123
Employee benefits	73,256,266	69,074,128
Rent	32,250,298	31,297,837
Depreciation/amortization	10,643,646	11,486,443
Other	<u>260,517,835</u>	<u>220,409,697</u>
Total operating expenses	<u>\$ 1,017,147,867</u>	<u>\$ 937,627,228</u>



MOSSADAMS

**Appendix 2 – Terms and
Conditions**

II. TERMS AND CONDITIONS


Bidders should complete Sections II through VI as part of their proposal. Bidder is expected to read the Terms and Conditions and should initial either accept, reject, or reject and provide alternative language for each clause. The bidder should also provide an explanation of why the bidder rejected the clause or rejected the clause and provided alternate language. By signing the RFP, bidder is agreeing to be legally bound by all the accepted terms and conditions, and any proposed alternative terms and conditions submitted with the proposal. The State reserves the right to negotiate rejected or proposed alternative language. If the State and bidder fail to agree on the final Terms and Conditions, the State reserves the right to reject the proposal. The State of Nebraska is soliciting proposals in response to this RFP. The State of Nebraska reserves the right to reject proposals that attempt to substitute the bidder's commercial contracts and/or documents for this RFP.

The bidders should submit with their proposal any license, user agreement, service level agreement, or similar documents that the bidder wants incorporated in the Contract. The State will not consider incorporation of any document not submitted with the bidder's proposal as the document will not have been included in the evaluation process. These documents shall be subject to negotiation and will be incorporated as addendums if agreed to by the Parties.

If a conflict or ambiguity arises after the Addendum to Contract Award have been negotiated and agreed to, the Addendum to Contract Award shall be interpreted as follows:

1. If only one Party has a particular clause then that clause shall control;
2. If both Parties have a similar clause, but the clauses do not conflict, the clauses shall be read together;
3. If both Parties have a similar clause, but the clauses conflict, the State's clause shall control.

A. GENERAL

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
		X 	Milliman believes that its responsive proposal should precede all RFP amendments and the original RFP document.

The contract resulting from this RFP shall incorporate the following documents:

1. Request for Proposal and Addenda;
2. Amendments to the RFP;
3. Questions and Answers;
4. Contractor's proposal (RFP and properly submitted documents);
5. The executed Contract and Addendum One to Contract, if applicable; and,
6. Amendments/Addendums to the Contract.

These documents constitute the entirety of the contract.


Unless otherwise specifically stated in a future contract amendment, in case of any conflict between the incorporated documents, the documents shall govern in the following order of preference with number one (1) receiving preference over all other documents and with each lower numbered document having preference over any higher numbered document: 1) Amendment to the executed Contract with the most recent dated amendment having the highest priority, 2) executed Contract and any attached Addenda, 3) the Contractor's submitted Proposal, 4) Amendments to RFP and any Questions and Answers, and 5) the original RFP document and any Addenda.

Any ambiguity or conflict in the contract discovered after its execution, not otherwise addressed herein, shall be resolved in accordance with the rules of contract interpretation as established in the State of Nebraska.

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Deleted: and 5) the Contractor's submitted Proposal

B. NOTIFICATION

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
			

Contractor and State shall identify the contract manager who shall serve as the point of contact for the executed contract


Communications regarding the executed contract shall be in writing and shall be deemed to have been given if delivered personally or mailed, by U S Mail, postage prepaid, return receipt requested, to the parties at their respective addresses set forth below, or at such other addresses as may be specified in writing by either of the parties. All notices, requests, or communications shall be deemed effective upon personal delivery or three (3) calendar days following deposit in the mail

C. GOVERNING LAW (Statutory)

Notwithstanding any other provision of this contract, or any amendment or addendum(s) entered into contemporaneously or at a later time, the parties understand and agree that, (1) the State of Nebraska is a sovereign state and its authority to contract is therefore subject to limitation by the State's Constitution, statutes, common law, and regulation; (2) this contract will be interpreted and enforced under the laws of the State of Nebraska; (3) any action to enforce the provisions of this agreement must be brought in the State of Nebraska per state law; (4) the person signing this contract on behalf of the State of Nebraska does not have the authority to waive the State's sovereign immunity, statutes, common law, or regulations; (5) the indemnity, limitation of liability, remedy, and other similar provisions of the final contract, if any, are entered into subject to the State's Constitution, statutes, common law, regulations, and sovereign immunity; and, (6) all terms and conditions of the final contract, including but not limited to the clauses concerning third party use, licenses, warranties, limitations of liability, governing law and venue, usage verification, indemnity, liability, remedy or other similar provisions of the final contract are entered into specifically subject to the State's Constitution, statutes, common law, regulations, and sovereign immunity


The Parties must comply with all applicable local, state and federal laws, ordinances, rules, orders, and regulations

D. BEGINNING OF WORK

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
			

The bidder shall not commence any billable work until a valid contract has been fully executed by the State and the successful Contractor. The Contractor will be notified in writing when work may begin

E. CHANGE ORDERS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
			

The State and the Contractor, upon the written agreement, may make changes to the contract within the general scope of the RFP. Changes may involve specifications, the quantity of work, or such other items as the State may

find necessary or desirable. Corrections of any deliverable, service, or work required pursuant to the contract shall not be deemed a change. The Contractor may not claim forfeiture of the contract by reasons of such changes.

The Contractor shall prepare a written description of the work required due to the change and an itemized cost sheet for the change. Changes in work and the amount of compensation to be paid to the Contractor shall be determined in accordance with applicable unit prices if any, a pro-rated value, or through negotiations. The State shall not incur a price increase for changes that should have been included in the Contractor's proposal, were foreseeable, or result from difficulties with or failure of the Contractor's proposal or performance.

No change shall be implemented by the Contractor until approved by the State, and the Contract is amended to reflect the change and associated costs, if any. If there is a dispute regarding the cost, but both parties agree that immediate implementation is necessary, the change may be implemented, and cost negotiations may continue with both Parties retaining all remedies under the contract and law.

F. NOTICE OF POTENTIAL CONTRACTOR BREACH

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
		X RD	In many instances, immediate notification is functionally impossible; however, Milliman will promptly notify the State of a breach or anticipated breach by Milliman.

If Contractor breaches the contract or anticipates breaching the contract, the Contractor shall promptly give written notice to the State. The notice shall explain the breach or potential breach, a proposed cure, and may include a request for a waiver of the breach if so desired. The State may, in its discretion, temporarily or permanently waive the breach. By granting a waiver, the State does not forfeit any rights or remedies to which the State is entitled by law or equity, or pursuant to the provisions of the contract. Failure to give prompt notice, however, may be grounds for denial of any request for a waiver of a breach.

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G. BREACH


Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
		X RD	Edits in this section intend to clarify that Milliman is only responsible for excess account associated with a default caused by Milliman. Furthermore, Milliman believes that a party not fulfilling any and all of its obligations under this agreement should be considered a breach.

Either Party may terminate the contract, in whole or in part, if the other Party breaches its duty to perform its obligations under the contract in a timely and proper manner. Termination requires written notice of default and a thirty (30) calendar day (or longer at the non-breaching Party's discretion considering the gravity and nature of the default) cure period. Said notice shall be delivered by Certified Mail, Return Receipt Requested, or in person with proof of delivery. Allowing time to cure a failure or breach of contract does not waive the right to immediately terminate the contract for the same or different contract breach which may occur at a different time. In case of default of the Contractor, the State may contract the service from other sources and hold the Contractor responsible for any excess cost caused by Contractor's default.

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Deleted: The State's failure to make payment shall not be a breach, and the Contractor shall retain all available statutory remedies and protections.

H. NON-WAIVER OF BREACH

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
			


The acceptance of late performance with or without objection or reservation by a Party shall not waive any rights of the Party nor constitute a waiver of the requirement of timely performance of any obligations remaining to be performed

I. SEVERABILITY

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
			

If any term or condition of the contract is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and conditions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the contract did not contain the provision held to be invalid or illegal

J. INDEMNIFICATION AND LIMITATION OF LIABILITY

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
			<p>Milliman's risk management requirements require that Milliman limit its indemnification of clients to Milliman's gross negligence. As a professional service firm, literally every claim that arises because of our services is going to allege negligence. If Milliman agrees to indemnify for simple negligence, Milliman essentially will be agreeing to indemnify for any claim that arises out of our services. This could completely undercut the limitation of liability. Therefore, Milliman's risk management requirements limit indemnification of clients to Milliman's gross negligence. Furthermore more, all indemnification clauses should be limited to third party claims. If the State has a direct claim that arises under this Agreement, the State is free to file such claim in accordance with the dispute resolution clause.</p> <p>In regards to the limitation of liability, Milliman recommends that the State give fair consideration to proposals, such as Milliman's, that contain an explicit limit of liability request since most actuarial firms have either have:</p> <p>a) An explicitly negotiated, contractual limit of liability, or</p> <p>b) An implicit, non-negotiated non-contractual limit of liability that is equal to the assets of the actuarial firm plus any errors & omissions (E&O) insurance, less legal fees.</p> <p>Our understanding is that State would prefer proposals which do not contain a limitation of the contractor's liability for services provided. However, no consulting firm is able to provide unlimited liability coverage. The ability of the State to recover damages is already limited. In most cases, the State is only able to recover assets of the actuarial firm, plus any Errors and Omissions (E&O) insurance, less legal fees.</p> <p>The liability limits of the majority of Milliman's remaining competitors are</p>

			<p>non-contractual limits. These competitors are smaller firms with much smaller firm assets and much more limited errors & omissions (E&O) insurance. The contractual limits of liability Milliman offers are completely backed both by our firm's assets and our E&O insurance, and are larger than the non-contractual limits of liability most other actuarial firms remaining in the public plan market are able to provide.</p> <p>We believe that because Milliman's contractual limit of liability is larger than the non-contractual limits of liability of most of our competitors Milliman is more accountable. A firm that pays a claim negotiated to be equal to its E&O coverage, which is smaller than Milliman's contractual limit, suffers a smaller impact to the firm's finances and is therefore less accountable.</p>
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1. **GENERAL**

The Contractor agrees to defend, indemnify, and hold harmless the State and its employees, agents, and its elected and appointed officials ("the indemnified parties") from and against any and all third party claims, liens, demands, damages, liability, actions, causes of action, losses, judgments, costs, and expenses of every nature, including investigation costs and expenses, settlement costs, and reasonable attorney fees and expenses ("the claims"), sustained or asserted against the State for personal injury, death, or property loss or damage, arising out of, resulting from, or attributable to the willful misconduct, gross negligence, or intentional fraud of the Contractor, its employees, Subcontractors, consultants, representatives, and agents in its performance of services under this contract, except to the extent such Contractor liability is attenuated by any action of the State which directly and proximately contributed to the claims.

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2. **INTELLECTUAL PROPERTY**

The Contractor agrees it will, at its sole cost and expense, defend, indemnify, and hold harmless the indemnified parties from and against any and all third party claims, to the extent such claims arise out of, result from, or are attributable to, the actual or alleged infringement or misappropriation of any patent, copyright, trade secret, trademark, or confidential information of any third party by the Contractor or its employees, Subcontractors, consultants, and agents in the provision of services under this contract; provided, however, the State gives the Contractor prompt notice in writing of the claim. The Contractor may not settle any infringement claim that will affect the State's use of the Licensed Software without the State's prior written consent, which consent may be withheld for any reason.

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If a judgment or settlement is obtained or reasonably anticipated against the State's use of any intellectual property for which the Contractor has indemnified the State, the Contractor shall, at the Contractor's sole cost and expense, promptly modify the item or items which were determined to be infringing, acquire a license or licenses on the State's behalf to provide the necessary rights to the State to eliminate the infringement, or provide the State with a non-infringing substitute that provides the State the same functionality.

Deleted: At the State's election, the actual or anticipated judgment may be treated as a breach of warranty by the Contractor, and the State may receive the remedies provided under this RFP.

3. **PERSONNEL**

The Contractor shall, at its expense, indemnify and hold harmless the indemnified parties from and against any claim with respect to withholding taxes, worker's compensation, employee benefits, or any other claim, demand, liability, damage, or loss of any nature relating to any of the personnel, including subcontractor's and their employees, provided by the Contractor.

4. **SELF-INSURANCE**

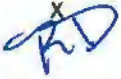
The State of Nebraska is self-insured for any loss and purchases excess insurance coverage pursuant to Neb. Rev. Stat. § 81-8,239.01 (Reissue 2008). If there is a presumed loss under the provisions of this agreement, Contractor may file a claim with the Office of Risk Management pursuant to Neb. Rev. Stat. §§ 81-8,829 – 81-8,306 for review by the State Claims Board. The State retains all rights and immunities under the State Miscellaneous (Section 81-8,294), Tort (Section 81-8,209), and Contract Claim Acts (Section 81-8,302), as outlined in Neb. Rev. Stat. § 81-8,209 et seq. and under any other provisions of law and accepts liability under this agreement to the extent provided by law.

5. The Parties acknowledge that Attorney General for the State of Nebraska is required by statute to represent the legal interests of the State, and that any provision of this indemnity clause is subject to the statutory authority of the Attorney General.

6. **LIMITATION OF LIABILITY**

Contractor will perform all services in accordance with applicable professional standards. In the event of any claim arising from services provided by Contractor at any time, the total liability of Contractor, its officers, directors, agents and employees to the State of Nebraska shall not exceed ten million dollars (\$10,000,000). This limit applies regardless of the theory of law under which a claim is brought, including negligence, tort, contract, or otherwise. In no event shall Contractor be liable for lost profits of State of Nebraska or any other type of incidental or consequential damages. The foregoing limitations shall not apply in the event of the intentional fraud or willful misconduct of Contractor.


K. DISPUTE RESOLUTION AND ATTORNEY'S FEES

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
			Milliman's board mandates that all Milliman agreements must have a Dispute's Resolution clause. Milliman prefers to resolve disputes by arbitration because Milliman has found that due to the complicated mathematical nature of its services, the issues are complex and require an experienced adjudicator who understands what actuaries do. A jury of twelve lay people will not understand the complexities that typically are involved in such a claim. Jury trials do not make for a fair forum for resolution of the issues.

In the event of any dispute arising out of or relating to this contract, the parties agree that the dispute will be resolved by final and binding arbitration under the Commercial Arbitration Rules of the American Arbitration Association. The arbitration shall take place before a panel of three arbitrators. Within 30 days of the commencement of the arbitration, each party shall designate in writing a single neutral and independent arbitrator. The two arbitrators designated by the parties shall then select a third arbitrator. The arbitrators shall have a background in either insurance, actuarial science or law. The arbitrators shall have the authority to permit limited discovery, including depositions, prior to the arbitration hearing, and such discovery shall be conducted consistent with the Federal Rules of Civil Procedure. The arbitrators shall have no power or authority to award punitive or exemplary damages. The arbitrators may, in their discretion, award the cost of the arbitration, including reasonable attorney fees, to the prevailing party. Any award made may be confirmed in any court having jurisdiction. Any arbitration shall be confidential, and except as required by law, neither party may disclose the content or results of any arbitration hereunder without the prior written consent of the other party, except that disclosure is permitted to a party's auditors and legal advisors.

In the event of any litigation, appeal, or other legal action to enforce any provision of the contract, the Parties agree to pay all expenses of such action, as permitted by law and if order by the court, including reasonable attorney's fees and costs, if the other Party prevails.


L. ASSIGNMENT, SALE, OR MERGER

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
			

Either Party may assign the contract upon mutual written agreement of the other Party. Such agreement shall not be unreasonably withheld.


The Contractor retains the right to enter into a sale, merger, acquisition, internal reorganization, or similar transaction involving Contractor's business. Contractor agrees to cooperate with the State in executing amendments to the contract to allow for the transaction. If a third party or entity is involved in the transaction, the Contractor will remain responsible for performance of the contract until such time as the person or entity involved in the transaction agrees in writing to be contractually bound by this contract and perform all obligations of the contract.

M. CONTRACTING WITH OTHER NEBRASKA POLITICAL SUB-DIVISIONS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
			

The Contractor may, but shall not be required to, allow agencies, as defined in Neb. Rev. Stat. §31-145, to use this contract. The terms and conditions, including price, of the contract may not be amended. The State shall not be contractually obligated or liable for any contract entered into pursuant to this clause. A listing of Nebraska political subdivisions may be found at the website of the Nebraska Auditor of Public Accounts.

N. FORCE MAJEURE


Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
			Particularly in situations of the type that involve Force Majeure, a restricted timeframe requirement can be functionally impossible. Therefore, Milliman will promptly notify the State of a breach of a Force Majeure event. Furthermore, due to the uncontrollable nature of a Force Majeure event, a single party should not have the subjective right to dictate if relief from the affected party's obligations should be granted.

Neither Party shall be liable for any costs or damages, or for default resulting from its inability to perform any of its obligations under the contract due to a natural or manmade event outside the reasonable control and not the fault of the affected Party ("Force Majeure Event"). The Party so affected shall promptly make a written request for relief to the other Party, and shall have the burden of proof to justify the request. Upon such notice, all obligations of the affected Party under this contract which are reasonably related to the Force Majeure Event shall be suspended, and the affected Party shall do everything reasonably necessary to resume performance as soon as possible. Labor disputes with the impacted Party's own employees will not be considered a Force Majeure Event.

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Deleted: The other Party may grant the relief requested; relief may not be unreasonably withheld.

O. CONFIDENTIALITY

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
			Milliman would like to add some additional exclusions to this section describing what constitutes confidential information. He added terms below are considered standard exclusions in a confidentiality setting. In many instances, immediate notification is functionally impossible; however, Milliman will promptly notify the State of a breach of confidential information.

All materials and information provided by the Parties or acquired by a Party on behalf of the other Party shall be regarded as confidential information provided, that contrary contract provisions set forth herein shall be deemed to be authorized exceptions to this general confidentiality provision. This provision shall survive termination of this contract. Notwithstanding the foregoing, information received independently, from the disclosing Party or a third party at the disclosing Party's direction will not be considered confidential if such information: (i) was in the public domain at the time of the communication thereof to the receiving Party; (ii) enters the public domain through no fault of the receiving Party subsequent to the time of the communication thereof to the receiving Party; (iii) was in the receiving Party's possession free of any obligation of confidentiality at the time of the communication thereof to the receiving Party; (iv) is developed by the receiving Party completely independent from the Confidential Information of disclosing Party; or (v) is required by law or regulation to be disclosed, but only to the extent and for the purpose of such required disclosure after providing the disclosing Party with advance written notice if reasonably possible such that the disclosing Party is afforded an opportunity to contest the disclosure or seek an appropriate protective order. All materials and information provided or acquired shall be handled in accordance with federal and state law, and

ethical standards. Should said confidentiality be breached by a Party, the Party shall notify the other Party promptly of said breach and take prompt corrective action.

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It is incumbent upon the Parties to inform their officers and employees of the penalties for improper disclosure imposed by the Privacy Act of 1974, 5 U.S.C. 552a. Specifically, 5 U.S.C. 552a (i)(1), which is made applicable by 5 U.S.C. 552a (m)(1), provides that any officer or employee, who by virtue of his/her employment or official position has possession of or access to agency records which contain individually identifiable information, the disclosure of which is prohibited by the Privacy Act or regulations established thereunder, and who knowing that disclosure of the specific material is prohibited, willfully discloses the material in any manner to any person or agency not entitled to receive it, shall be guilty of a misdemeanor and fined not more than \$5,000.

P. OFFICE OF PUBLIC COUNSEL (Statutory)

If it provides, under the terms of this contract and on behalf of the State of Nebraska, health and human services to individuals; service delivery; service coordination; or case management, Contractor shall submit to the jurisdiction of the Office of Public Counsel, pursuant to Neb. Rev. Stat. §§ 81-8,240 et seq. This section shall survive the termination of this contract.

Q. LONG-TERM CARE OMBUDSMAN (Statutory)

Contractor must comply with the Long-Term Care Ombudsman Act, Neb. Rev. Stat. §§ 81-2237 et seq. This section shall survive the termination of this contract.

R. BUSINESS ASSOCIATE AGREEMENT (BAA)

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
RD			Attached to Milliman's proposal are suggested edits to the referenced BAA.

In the provision of any service under this contract, the Contractor must comply with all applicable law, including but not limited to federal and state statutes, rules and regulations, and guidance documents. Compliance includes, but is not limited to:

1. The Health Information Protection and Portability Act (HIPAA), as set forth in Attachment B - BAA; and
2. The Medicaid-specific, above-and-beyond-HIPAA privacy protections found at 42 CFR Part 431, Subpart F.

S. EARLY TERMINATION


Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
RD			

The contract may be terminated as follows:

1. The State and the Contractor, by mutual written agreement, may terminate the contract at any time.
2. The State, in its sole discretion, may terminate the contract for any reason upon thirty (30) calendar day's written notice to the Contractor. Such termination shall not relieve the Contractor of warranty or other service obligations incurred under the terms of the contract. In the event of termination the Contractor shall be entitled to payment, determined on a pro rata basis, for products or services satisfactorily performed or provided.
3. The State may terminate the contract immediately for the following reasons:
 - a. if directed to do so by statute;
 - b. Contractor has made an assignment for the benefit of creditors, has admitted in writing its inability to pay debts as they mature, or has ceased operating in the normal course of business;
 - c. a trustee or receiver of the Contractor or of any substantial part of the Contractor's assets has been appointed by a court;

- d. fraud, misappropriation, embezzlement, malfeasance, misfeasance, or illegal conduct pertaining to performance under the contract by its Contractor, its employees, officers, directors, or shareholders;
- e. an involuntary proceeding has been commenced by any Party against the Contractor under any one of the chapters of Title 11 of the United States Code and (i) the proceeding has been pending for at least sixty (60) calendar days; or (ii) the Contractor has consented, either expressly or by operation of law, to the entry of an order for relief; or (iii) the Contractor has been decreed or adjudged a debtor;
- f. a voluntary petition has been filed by the Contractor under any of the chapters of Title 11 of the United States Code;
- g. Contractor intentionally discloses confidential information;
- h. Contractor has or announces it will discontinue support of the deliverable; and,
- i. In the event funding is no longer available

T. CONTRACT CLOSEOUT

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
			<p>Unfinished work product represents a drastic expansion of liabilities faced by Milliman. Incomplete or partially completed work product may not have been reviewed, double-checked or finalized and cannot be relied upon by State. Therefore, Milliman only provides completed work to its clients.</p> <p>Milliman wants to ensure that its obligation to cooperate is limited to reasonable requests from the State and the State's other contractors.</p>

Upon contract closeout for any reason the Contractor shall within 30 days, unless stated otherwise herein:

1. Transfer all completed ~~and paid for~~ deliverables to the State;
2. Transfer ownership and title to all completed ~~and paid for~~ deliverables to the State;
3. Return to the State all information and data, unless the Contractor is permitted to keep the information or data by contract or rule of law. Contractor may retain one copy of any information or data as required to comply with applicable work product documentation standards or as are automatically retained in the course of Contractor's routine back up procedures;
4. ~~Reasonably~~ cooperate with any successor Contractor, person or entity in the assumption of any or all of the obligations of this contract;
5. ~~Reasonably~~ cooperate with any successor Contractor, person or entity with the transfer of information or data related to this contract;
6. Return or vacate any state owned real or personal property; and,
7. Return all data in a mutually acceptable format and manner.

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Nothing in this Section should be construed to require the Contractor to surrender intellectual property, real or personal property, or information or data owned by the Contractor for which the State has no legal claim.

III. CONTRACTOR DUTIES

A. INDEPENDENT CONTRACTOR / OBLIGATIONS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
			

It is agreed that the Contractor is an independent contractor and that nothing contained herein is intended or should be construed as creating or establishing a relationship of employment, agency, or a partnership

The Contractor is solely responsible for fulfilling the contract. The Contractor or the Contractor's representative shall be the sole point of contact regarding all contractual matters.

The Contractor shall secure, at its own expense, all personnel required to perform the services under the contract. The personnel the Contractor uses to fulfill the contract shall have no contractual or other legal relationship with the State; they shall not be considered employees of the State and shall not be entitled to any compensation, rights or benefits from the State, including but not limited to, tenure rights, medical and hospital care, sick and vacation leave, severance pay, or retirement benefits.

By-name personnel commitments made in the Contractor's proposal shall not be changed without the prior written approval of the State. Replacement of these personnel, if approved by the State, shall be with personnel of equal or greater ability and qualifications.

All personnel assigned by the Contractor to the contract shall be employees of the Contractor or a subcontractor, and shall be fully qualified to perform the work required herein. Personnel employed by the Contractor or a subcontractor to fulfill the terms of the contract shall remain under the sole direction and control of the Contractor or the subcontractor respectively.

With respect to its employees, the Contractor agrees to be solely responsible for the following:

1. Any and all pay, benefits, and employment taxes and/or other payroll withholding;
2. Any and all vehicles used by the Contractor's employees, including all insurance required by state law;
3. Damages incurred by Contractor's employees within the scope of their duties under the contract;
4. Maintaining Workers' Compensation and health insurance that complies with state and federal law and submitting any reports on such insurance to the extent required by governing law; and
5. Determining the hours to be worked and the duties to be performed by the Contractor's employees.
6. All claims on behalf of any person arising out of employment or alleged employment (including without limit claims of discrimination alleged against the Contractor, its officers, agents, or subcontractors or subcontractor's employees).

If the Contractor intends to utilize any subcontractor, the subcontractor's level of effort, tasks, and time allocation should be clearly defined in the bidder's proposal. The Contractor shall agree that it will not utilize any subcontractors not specifically included in its proposal in the performance of the contract without the prior written authorization of the State.

The State reserves the right to require the Contractor to reassign or remove from the project any Contractor or subcontractor employee.

Contractor shall insure that the terms and conditions contained in any contract with a subcontractor does not conflict with the terms and conditions of this contract.

The Contractor shall include a similar provision, for the protection of the State, in the contract with any Subcontractor engaged to perform work on this contract.

B. EMPLOYEE WORK ELIGIBILITY STATUS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
AD			

The Contractor is required and hereby agrees to use a federal immigration verification system to determine the work eligibility status of employees physically performing services within the State of Nebraska. A federal immigration verification system means the electronic verification of the work authorization program authorized by the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, 8 U.S.C. 1324a, known as the E-Verify Program, or an equivalent federal program designated by the United States Department of Homeland Security or other federal agency authorized to verify the work eligibility status of an employee.

If the Contractor is an individual or sole proprietorship, the following applies:

1. The Contractor must complete the United States Citizenship Attestation Form, available on the Department of Administrative Services website at <http://das.nebraska.gov/materiel/purchasing.html>.
The completed United States Attestation Form should be submitted with the RFP response.
2. If the Contractor indicates on such attestation form that he or she is a qualified alien, the Contractor agrees to provide the US Citizenship and Immigration Services documentation required to verify the Contractor's lawful presence in the United States using the Systematic Alien Verification for Entitlements (SAVE) Program.
3. The Contractor understands and agrees that lawful presence in the United States is required and the Contractor may be disqualified or the contract terminated if such lawful presence cannot be verified as required by Neb. Rev. Stat. §4-108.

C. COMPLIANCE WITH CIVIL RIGHTS LAWS AND EQUAL OPPORTUNITY EMPLOYMENT / NONDISCRIMINATION (Statutory)

The Contractor shall comply with all applicable local, state, and federal statutes and regulations regarding civil rights laws and equal opportunity employment. The Nebraska Fair Employment Practice Act prohibits Contractors of the State of Nebraska, and their Subcontractors, from discriminating against any employee or applicant for employment, with respect to hire, tenure, terms, conditions, compensation, or privileges of employment because of race, color, religion, sex, disability, marital status, or national origin (Neb. Rev. Stat. §48-1101 to 48-1125). The Contractor guarantees compliance with the Nebraska Fair Employment Practice Act, and breach of this provision shall be regarded as a material breach of contract. The Contractor shall insert a similar provision in all Subcontracts for services to be covered by any contract resulting from this RFP.

D. COOPERATION WITH OTHER CONTRACTORS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
		AD	Milliman wants to ensure that its obligation to cooperate is limited to reasonable requests from the State and the State's other contractors.

Contractor may be required to work with or in close proximity to other contractors or individuals that may be working on same or different projects. The Contractor shall agree to reasonably cooperate with such other contractors or individuals, and shall not commit or permit any act which may interfere with the performance of work by any other contractor or individual. Contractor is not required to compromise Contractor's intellectual property or proprietary information unless expressly required to do so by this contract.

E. PERMITS, REGULATIONS, LAWS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
RD			

The contract price shall include the cost of all royalties, licenses, permits, and approvals, whether arising from patents, trademarks, copyrights or otherwise, that are in any way involved in the contract. The Contractor shall obtain and pay for all royalties, licenses, and permits, and approvals necessary for the execution of the contract. The Contractor must guarantee that it has the full legal right to the materials, supplies, equipment, software, and other items used to execute this contract.

F. OWNERSHIP OF INFORMATION AND DATA / DELIVERABLES

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
		RD	<p>Milliman added language to this section for two reasons:</p> <p>a) Milliman needs to ensure that it retains rights in its own knowledge capital and intellectual property employed in the rendering of services to the State.</p> <p>b) Milliman's risk management policies require that Milliman mitigate risks by controlling the delivery of its work to only the client with whom Milliman has direct contractual obligations and rights. The delivery of Milliman's work product to third parties is restricted unless the distribution is based on requirements of public records laws.</p>

Subject to the restrictions set forth herein, the State shall have the unlimited right to duplicate and use, all information and data developed or obtained by the Contractor and delivered to State pursuant to this contract.


Subject to the restrictions set forth herein, the State shall own and hold exclusive title to any deliverable developed and delivered as a result of this contract. Subject to the restrictions set forth herein, Contractor shall have no ownership interest or title, and shall not patent, license, or copyright, duplicate, transfer, sell, or exchange, the design, specifications, concept, or deliverable.

Contractor shall retain all rights, title and interest (including, without limitation, all copyrights, patents, service marks, trademarks, trade secret and other intellectual property rights) in and to all technical or internal designs, methods, ideas, concepts, know-how, techniques, generic documents and templates ("Tools") that have been previously developed by Contractor or such Tools developed during the course of the provision of the Services provided such Tools do not contain and/or are not based upon or derived from any State Confidential Information or proprietary data. Rights and ownership by Contractor of its Tools shall not extend to or include all or any part of State's proprietary data or State Confidential Information. To the extent that Contractor may include in the materials any Tools, Contractor agrees that State shall be deemed to have a fully paid up perpetual license to make copies of the Tools as part of this engagement for its internal business purposes and provided that such Tools cannot be modified or distributed outside State without the written permission of Contractor or except as otherwise permitted herein.

Contractor's work is prepared solely for the use and benefit of State in accordance with its statutory and regulatory requirements. Contractor recognizes that materials it delivers to State may be public records subject to disclosure to third parties; however, Contractor does not intend to benefit and assumes no duty or liability to any third parties who receive Contractor's work and may include disclaimer language on its work product so stating. State agrees not to remove any such disclaimer language from Contractor's work. To the extent that Contractor's work is not subject to disclosure under applicable public records laws, State agrees that it shall not disclose Contractor's work product to third parties without Contractor's prior written consent, provided, however, that State may distribute Contractor's work to: (i) its professional service providers who are subject to a duty of confidentiality and who agree to not use Contractor's work product for any purpose other than to provide services to State, or (ii) any applicable regulatory or governmental agency, as required.

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G. INSURANCE REQUIREMENTS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
			All edits to this section were made to be consistent with the insurance carried by Milliman

The Contractor shall throughout the term of the contract maintain insurance as specified herein and provide the State a current Certificate of Insurance/Acord Form (COI) verifying the coverage. The Contractor shall not commence work on the contract until the insurance is in place. If Contractor subcontracts any portion of the Contract the Contractor must, throughout the term of the contract, either:

1. Provide equivalent insurance for each subcontractor and provide a COI verifying the coverage for the subcontractor;
2. Require each subcontractor to have equivalent insurance and provide written notice to the State that the Contractor has verified that each subcontractor has the required coverage; or,
3. Provide the State with copies of each subcontractor's Certificate of Insurance evidencing the required coverage

The Contractor shall not allow any Subcontractor to commence work until the Subcontractor has equivalent insurance. The failure of the State to require a COI, or the failure of the Contractor to provide a COI or require subcontractor insurance shall not limit, relieve, or decrease the liability of the Contractor hereunder.

In the event that any policy written on a claims-made basis terminates or is canceled during the term of the contract or within One (1) year of termination or expiration of the contract, the contractor shall obtain an extended discovery or reporting period, or a new insurance policy, providing coverage required by this contract for the term of the contract and one (1) year following termination or expiration of the contract.

If by the terms of any insurance a mandatory deductible is required, or if the Contractor elects to increase the mandatory deductible amount, the Contractor shall be responsible for payment of the amount of the deductible in the event of a paid claim.

Notwithstanding any other clause in this Contract, the State may recover up to the liability limits of the insurance policies required herein.

1. WORKERS' COMPENSATION INSURANCE

The Contractor shall take out and maintain during the life of this contract the statutory Workers' Compensation and Employer's Liability Insurance for all of the contractors' employees to be engaged in work on the project under this contract and, in case any such work is sublet, the Contractor shall require the Subcontractor similarly to provide Worker's Compensation and Employer's Liability Insurance for all of the Subcontractor's employees to be engaged in such work. This policy shall be written to meet the statutory requirements for the state in which the work is to be performed, including Occupational Disease. The policy shall include a waiver of subrogation in favor of the State. The COI shall contain the mandatory COI subrogation waiver language found hereinafter. The amounts of such insurance shall not be less than the limits stated hereinafter. For employees working in the State of Nebraska, the policy must be written by an entity authorized by the State of Nebraska Department of Insurance to write Workers' Compensation and Employer's Liability Insurance for Nebraska employees.

2. COMMERCIAL GENERAL LIABILITY INSURANCE AND COMMERCIAL AUTOMOBILE LIABILITY INSURANCE

The Contractor shall take out and maintain during the life of this contract such Commercial General Liability Insurance and Commercial Automobile Liability Insurance as shall protect Contractor and any Subcontractor performing work covered by this contract from claims for damages for bodily injury, including death, as well as from claims for property damage, which may arise from operations under this contract, whether such operation be by the Contractor or by any Subcontractor or by anyone directly or indirectly employed by either of them, and the amounts of such insurance shall not be less than limits stated hereinafter.

The Commercial General Liability Insurance shall be written on an occurrence basis, and provide Premises/Operations, Products/Completed Operations, Independent Contractors, Personal Injury, and Contractual Liability coverage. The policy shall include the State, and others as required by the contract documents, as Additional Insured(s). This policy shall be primary, and any insurance or

self-insurance carried by the State shall be considered secondary and non-contributory. The COI shall contain the mandatory COI liability waiver language found hereinafter. The Commercial Automobile Liability Insurance shall be written to cover all Owned, Non-owned, and Hired vehicles.

REQUIRED INSURANCE COVERAGE	
COMMERCIAL GENERAL LIABILITY	
General Aggregate	\$2,000,000
Products/Completed Operations Aggregate	included
Personal/Advertising Injury	\$1,000,000 per occurrence
Bodily Injury/Property Damage	\$1,000,000 per occurrence
Medical Payments	\$10,000 any one person
Damage to Rented Premises (Fire)	\$300,000 each occurrence
Contractual	Included
Independent Contractors	Included
Abuse & Molestation	Included
<i>If higher limits are required, the Umbrella/Excess Liability limits are allowed to satisfy the higher limit.</i>	
WORKER'S COMPENSATION	
Employers Liability Limits	\$500K/\$500K/\$500K
Statutory Limits- All States	Statutory - State of Nebraska
USL&H Endorsement	Statutory
Voluntary Compensation	Statutory
COMMERCIAL AUTOMOBILE LIABILITY	
Bodily Injury/Property Damage	\$1,000,000 combined single limit
Include All Owned, Hired & Non-Owned Automobile liability	Included
Motor Carrier Act Endorsement	Where Applicable
UMBRELLA/EXCESS LIABILITY	
Over Primary Insurance	\$1,000,000 per occurrence
PROFESSIONAL LIABILITY	
All Other Professional Liability (Errors & Omissions)	\$1,000,000 Per Claim / Aggregate
COMMERCIAL CRIME	
Crime/Employee Dishonesty Including 3rd Party Fidelity	\$1,000,000
CYBER LIABILITY	
Breach of Privacy, Security Breach, Denial of Service, Remediation, Fines and Penalties	\$2,000,000
MANDATORY COI SUBROGATION WAIVER LANGUAGE	
"Workers' Compensation policy shall include a waiver of subrogation in favor of the State of Nebraska."	
MANDATORY COI LIABILITY WAIVER LANGUAGE	
"Commercial General Liability & Commercial Automobile Liability policies shall name the State of Nebraska as an Additional Insured and the policies shall be primary and any insurance or self-insurance carried by the State shall be considered secondary and non-contributory as additionally insured."	

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If the mandatory COI subrogation waiver language or mandatory COI liability waiver language on the COI states that the waiver is subject to, condition upon, or otherwise limit by the insurance policy, a copy of the relevant sections of the policy must be submitted with the COI so the State can review the limitations imposed by the insurance policy.

3. EVIDENCE OF COVERAGE

The Contractor shall furnish the Contract Manager, with a certificate of insurance coverage complying with the above requirements prior to beginning work at:

Agency
Attn: Managed Care Finance Program Specialist
Address Medicaid and Long-Term Care / Rates & Reimbursement
City, State, Zip 301 Centennial Mall South, Lincoln, NE 68509

These certificates or the cover sheet shall reference the RFP number, and the certificates shall include the name of the company, policy numbers, effective dates, dates of expiration, and amounts and types of coverage afforded. If the State is damaged by the failure of the Contractor to maintain such insurance, then the Contractor shall be responsible for all reasonable costs properly attributable thereto.

Reasonable notice of cancellation of any required insurance policy must be submitted to the contract manager as listed above when issued and a new certificate shall be submitted promptly to ensure no break in coverage.

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4. DEVIATIONS

The insurance requirements are subject to limited negotiation. Negotiation typically includes, but is not necessarily limited to, the correct type of coverage, necessity for Workers' Compensation, and the type of automobile coverage carried by the Contractor.

H. ANTITRUST

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
PD			

The Contractor hereby assigns to the State any and all claims for overcharges as to goods and/or services provided in connection with this contract resulting from antitrust violations which arise under antitrust laws of the United States and the antitrust laws of the State.

I. CONFLICT OF INTEREST

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
		PD	Milliman wants to ensure that it can comply with the conflict obligations. Conflict of interest provision tend to be overly broad for Milliman due to the autonomy of each practice at our firm. Milliman is proposing an alternative clause to the deleted language in order to guarantee that we can meet the State's needs, but still services our other clients.

In the performance of this contract, the Contractor shall avoid all conflicts of interest and all appearances of conflicts of interest. Contractor represents to State that it maintains a robust internal conflict checking and agrees to promptly notify State of any potential conflict of interest encountered so that other arrangements can be made to complete the work.

Deleted: By submitting a proposal, bidder certifies that there does not now exist a relationship between the bidder and any person or entity which is or gives the appearance of a conflict of interest related to this RFP or project. ¶

¶ The bidder certifies that it shall not take any action or acquire any interest, either directly or indirectly, which will conflict in any manner or degree with the performance of its services hereunder or which creates an actual or an appearance of conflict of interest. ¶

¶ The bidder certifies that it will not knowingly employ any individual known by bidder to have a conflict of interest. ¶

¶ The Parties shall not knowingly, for a period of two years after execution of the contract, recruit or employ any employee or agent of the other Party who has worked on the RFP or project, or who had any influence on decisions affecting the RFP or project.

J. STATE PROPERTY

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
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The Contractor shall be responsible for the proper care and custody of any State-owned property which is furnished for the Contractor's use during the performance of the contract. The Contractor shall reimburse the State for any loss or damage of such property; normal wear and tear is expected.

K. SITE RULES AND REGULATIONS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
		X RD	Milliman can only agree to comply with on-site rules and regulations that it has had the chance to review prior to entry on to the State's premises

The Contractor shall use its reasonable efforts to ensure that its employees, agents, and Subcontractors comply with site rules and regulations while on State premises of which it is informed in writing prior to entering the premises. If the Contractor must perform on-site work outside of the daily operational hours set forth by the State, it must make arrangements with the State to ensure access to the facility and the equipment has been arranged. No additional payment will be made by the State on the basis of lack of access, unless the State fails to provide access as agreed to in writing between the State and the Contractor.

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L. ADVERTISING

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
		X RD	Milliman must control the use of its name by third parties. Hence, edits were made for this provision to be applicable to both parties.

The Parties agrees not to refer to the contract award in advertising in such a manner as to state or imply that the other Party or its services are endorsed or preferred by the other Party. Any publicity releases pertaining to the project shall not be issued without prior written approval from the other Party.

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M. NEBRASKA TECHNOLOGY ACCESS STANDARDS (Statutory)

Contractor shall review the Nebraska Technology Access Standards, found at <http://nltc.nebraska.gov/standards/2-201.html> and ensure that products and/or services provided under the contract are in compliance or will comply with the applicable standards to the greatest degree possible. In the event such standards change during the Contractor's performance, the State may create an amendment to the contract to request the contract comply with the changed standard at a cost mutually acceptable to the parties.

N. DISASTER RECOVERY/BACK UP PLAN


Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
		X RD	Milliman's security policies and procedures are confidential

The Contractor shall have a disaster recovery and back-up plan which includes, but is not limited to equipment, personnel, facilities, and transportation, in order to continue services as specified under the specifications in the contract in the event of a disaster.

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O. DRUG POLICY

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within	NOTES/COMMENTS:
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		RFP Response (Initial)	
			

Contractor certifies it maintains a drug free work place environment to ensure worker safety and workplace integrity
Contractor agrees to provide a copy of its drug free workplace policy at any time upon request by the State
PAYMENT


P. PROHIBITION AGAINST ADVANCE PAYMENT (Statutory)

Payments shall not be made until contractual deliverable(s) are received and accepted by the State

B. TAXES (Statutory)

The State is not required to pay taxes and assumes no such liability as a result of this solicitation. Any property tax payable on the Contractor's equipment which may be installed in a state-owned facility is the responsibility of the Contractor


C. INVOICES

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
			Milliman needs to retain the right to suspend services non-payment of services

Invoices for payments must be submitted by the Contractor to the agency requesting the services with sufficient detail to support payment. Managed Care Finance Program Specialist, Medicaid and Long-Term Care/Rates & Reimbursement, 301 Centennial Mall South, Lincoln, NE 68509. The terms and conditions included in the Contractor's invoice shall be deemed to be solely for the convenience of the parties. No terms or conditions of any such invoice shall be binding upon the State, and no action by the State, including without limitation the payment of any such invoice in whole or in part, shall be construed as binding or estopping the State with respect to any such term or condition, unless the invoice term or condition has been previously agreed to by the State as an amendment to the contract.

The Contractor reserves the right to stop all work if any bill goes unpaid by State for sixty (60) days. In the event the State receives an invoice and requests the Contractor to review or adjust charges or services reflected on the invoice, the 60 day period will be measured starting on the date the Contractor submits an adjusted invoice to State. In the event there is a work stoppage under this provision, the Contractor shall be entitled to collect the outstanding balance which the State has reviewed and approved, as well as charges for all State approved invoices for services and expenses incurred up to the date of stoppage.

D. INSPECTION AND APPROVAL

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
			Milliman requires prior written notice in the event the State elects to conduct an audit. Moreover, Milliman has numerous clients, each with their own important deadlines and Milliman needs to be able to insure that audits are scheduled at a minimally disruptive time.

Final inspection and approval of all work required under the contract shall be performed by the designated State officials.


The State and/or its authorized representatives shall have the right to enter any premises where the Contractor or Subcontractor duties under the contract are being performed, and to inspect, monitor or otherwise evaluate the work being performed. Upon prior written notice, all inspections and evaluations shall be at a reasonable date and time, as mutually agreed upon by the parties and in a manner that will not unreasonably delay work.

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Appendix 4 – Payment

E. PAYMENT

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
			Milliman cannot agree to a subjective, undetermined standard of performance. Milliman will warrant that its work will materially meet the standards set forth in the Agreement.

State will render payment to Contractor when the terms and conditions of the contract and specifications have been completed on the part of the Contractor in material compliance with the specification set forth herein. (Neb. Rev. Stat. Section 73-506(1)) Payment will be made by the responsible agency in compliance with the State of Nebraska Prompt Payment Act (See Neb. Rev. Stat. §81-2401 through §1-2408). The State may require the Contractor to accept payment by electronic means such as ACH deposit. In no event shall the State be responsible or liable to pay for any services provided by the Contractor prior to the Effective Date of the contract, and the Contractor hereby waives any claim or cause of action for any such services.


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F. LATE PAYMENT (Statutory)


The Contractor may charge the responsible agency interest for late payment in compliance with the State of Nebraska Prompt Payment Act (See Neb. Rev. Stat. §81-2401 through §1-2408).

G. SUBJECT TO FUNDING / FUNDING OUT CLAUSE FOR LOSS OF APPROPRIATIONS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
			

The State's obligation to pay amounts due on the Contract for a fiscal year following the current fiscal year is contingent upon legislative appropriation of funds. Should said funds not be appropriated, the State may terminate the contract with respect to those payments for the fiscal year(s) for which such funds are not appropriated. The State will give the Contractor written notice thirty (30) calendar days prior to the effective date of termination. All obligations of the State to make payments after the termination date will cease. The Contractor shall be entitled to receive just and equitable compensation for any authorized work which has been satisfactorily completed as of the termination date. In no event shall the Contractor be paid for a loss of anticipated profit.

H. RIGHT TO AUDIT (First Paragraph is Statutory)

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
			Milliman has numerous clients, each with their own important deadlines and Milliman needs to be able to insure that audits are scheduled at a minimally disruptive time. Furthermore, if the State chose to conduct an audit, the State should be responsible for all fees associated with such audit.

The State shall have the right to audit the Contractor's performance of this contract upon a 30 days' written notice. Contractor shall utilize generally accepted accounting principles, and shall maintain the accounting records, and other records and information directly relevant to work performed and monies received under the contract (information) to enable the State to audit the contract. The State may audit and the Contractor shall maintain, the information during the term of the contract and for a period of five (5) years after the completion of this contract or until all issues or litigation are resolved, whichever is later. The Contractor shall make the information available to the State at Contractor's place of business or a location acceptable to both Parties during normal business hours at a date and time mutually agreed upon by the parties. If this is not practical or the Contractor so elects, the Contractor may provide electronic or paper copies of the information. The State reserves the right to examine,

make copies of, and take notes on any information directly relevant to this contract, regardless of the form or the information, how it is stored, or who possesses the information. Under no circumstance will the Contractor be required to create or maintain documents not kept in the ordinary course of contractor's business operations, nor will contractor be required to disclose any information, including but not limited to product cost data, which is confidential or proprietary to contractor.

The State shall pay the cost of the audit unless the audit finds a previously undisclosed overpayment by the State. If a previously undisclosed overpayment exceeds one and five percent (5%) of the total contract billings, or if fraud, material misrepresentations, or non-performance is discovered on the part of the Contractor, the Contractor shall reimburse the State for the total costs of the audit. Overpayments and audit costs owed to the State shall be paid within ninety days of written notice of the claim. The Contractor agrees to correct any material weaknesses or condition found as a result of the audit.

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Calendar Year 2018 Medicaid Managed Care Provider Agreement Rate Certification Summary

January 1, 2018 through December 31, 2018

Ohio Department of Medicaid

Prepared for:

Al Dickerson

Deputy Director Rate Setting

Ohio Department of Medicaid

Prepared by:

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Table of Contents

INTRODUCTION & EXECUTIVE SUMMARY	1
SECTION I. MEDICAID MANAGED CARE RATES	1
1. GENERAL INFORMATION	1
2. DATA	2
3. PROJECTED BENEFIT COST AND TRENDS	12
4. SPECIAL CONTRACT PROVISIONS RELATED TO PAYMENT	18
5. PROJECTED NON-BENEFIT COSTS	21
6. RISK ADJUSTMENT AND ACUITY ADJUSTMENTS	24
SECTION II. NEW ADULT GROUP CAPITATION RATES	25
1. DATA	25
2. PROJECTED BENEFIT COSTS	25
3. PROJECTED NON-BENEFIT COSTS	26
4. FINAL CERTIFIED RATES OR RATE RANGES	26
5. RISK MITIGATION STRATEGIES	26
LIMITATIONS	27
APPENDIX 1: 2018 RATE CHANGE SUMMARIES	

INTRODUCTION & EXECUTIVE SUMMARY

This document is an abridged version of the file titled "CY 2018 Medicaid Managed Care Certification" dated December 1, 2017. Please refer to the certification report for a complete version of the calendar year 2018 Medicaid Managed Care capitation rate development documentation.

BACKGROUND

Milliman, Inc. (Milliman) has been retained by the Ohio Department of Medicaid (ODM) to provide actuarial and consulting services related to the development of capitation rates for its Medicaid Managed Care Program (MMC) effective January 1, 2018.

This letter provides documentation for the development of the actuarially sound capitation rates. The certified capitation rates for the MMC program are effective from January 1, 2018 through December 31, 2018.

SECTION I. MEDICAID MANAGED CARE RATES

1. GENERAL INFORMATION

The capitation rates provided under this certification are "actuarially sound" for purposes of 42 CFR 438.4(a), according to the following criteria:

- The capitation rates provide for all reasonable, appropriate, and attainable costs that are required under terms of the contract and for the operation of the managed care plan for the time period and population covered under the terms of the contract, and such capitation rates were developed in accordance with the requirements under 42 CFR 438.4(b).

To ensure compliance with generally accepted actuarial practices and regulatory requirements, we referred to published guidance from the American Academy of Actuaries (AAA), the Actuarial Standards Board (ASB), the Centers for Medicare and Medicaid Services (CMS), and federal regulations. Specifically, the following were referenced during the rate development:

- Actuarial standards of practice applicable to Medicaid managed care rate setting which have been enacted as of the capitation rate certification date, including: ASOP 1 (Introductory Actuarial Standard of Practice); ASOP 5 (Incurred Health and Disability Claims); ASOP 23 (Data Quality); ASOP 25 (Credibility Procedures); ASOP 41 (Actuarial Communications); ASQP 45 (The Use of Health Status Based Risk Adjustment Methodologies); and ASOP 49 (Medicaid Managed Care Capitation Rate Development and Certification).
- Actuarial soundness and rate development requirements in the Medicaid and CHIP Managed Care Final Rule (CMS 2390-F) for the provisions effective for the CY 2018 managed care program rating period.
- The most recent *Medicaid Managed Care Rate Development Guide* published by CMS.
- Throughout this document and consistent with the requirements under 42 CFR 438.4(a), the term "actuarially sound" will be defined as in ASOP 49:

*"Medicaid capitation rates are "actuarially sound" if, for business for which the certification is being prepared and for the period covered by the certification, projected capitation rates and other revenue sources provide for all reasonable, appropriate, and attainable costs. For purposes of this definition, other revenue sources include, but are not limited to, expected reinsurance and governmental stop-loss cash flows, governmental risk-adjustment cash flows, and investment income. For purposes of this definition, costs include, but are not limited to, expected health benefits; health benefit settlement expenses; administrative expenses; the cost of capital, and government-mandated assessments, fees, and taxes."*¹

¹ <http://www.actuarialstandardsboard.org/asops/mc-mc-capitation-rate-development-and-certification/>

A. RATE DEVELOPMENT STANDARDS

i. Annual basis

The capitation rates are for the one year rate period from January 1, 2018 through December 31, 2018.

ii. Differences among capitation rates

Any proposed differences among capitation rates according to covered populations are based on valid rate development standards and are not based on the rate of federal financial participation associated with the covered populations.

iii. Cross-subsidization of rate cell payment

The capitation rates were developed at the rate cell level and neither cross-subsidize nor are cross-subsidized by payments from any other rate cell.

B. APPROPRIATE DOCUMENTATION

i. Documentation of required elements

This report contains appropriate documentation of key elements, including data used, assumptions made, and methods for analyzing data and developing assumptions and adjustments.

2. DATA

This section provides information on the base data used to develop the capitation rates.

A. APPROPRIATE DOCUMENTATION

i. Requested data

As the actuary contracted by ODM to provide consulting services and associated financial analyses for many aspects of the MMC program (and not limited to capitation rate development), Milliman intakes and summarizes eligibility and expenditure data on a monthly basis using vendor files provided by ODM. As such, there is no separate data request from Milliman to the state specifically related to the base data for the capitation rate development. The remainder of this section details the base data and validation processes utilized in the CY 2018 capitation rate development.

ii. Data used to develop the capitation rates

(a) Description of the data

(i) Types of data

The primary data sources used in the development of the MMC rates are the following:

- Historical enrollment and eligibility files provided by ODM;
- Encounter data submitted by the MCPs;
- Annual cost report data submitted by the MCPs;
- Re-priced inpatient and outpatient hospital claims experience provided by ODM;
- Historical FFS data for the AFK population provided by ODM;
- Historical FFS data provided by ODM for the Breast and Cervical Cancer Project (BCCP), Bureau of Children with Medical Handicaps Program (BCMHP), and Developmental Disabilities (DD) populations;
- CY 2016 Managed Care Survey completed by each MCP; and,
- Statutory financial statement data.

(ii) Age of the data

The data serving as the base experience in the capitation rate development process was incurred during CY 2016. The annual cost report data reflects claims paid through March 31, 2017. The encounter data used in our rate development process reflected encounters adjudicated through March 31, 2017, consistent with the basis of the annual cost report data. For the purposes of trend development and analyzing emerging population enrollment patterns and claims experience, we also reviewed encounter and cost report experience from CY 2014 through the first half of CY 2017. Cost report and encounter data was provided by ODM.

For the purpose of analyzing inpatient and outpatient hospital reimbursement changes, we received hospital encounter data (re-priced to ODM's fee schedule) for inpatient and outpatient hospital services incurred during CY 2016 from ODM. We also summarized statutory financial statement data from calendar years 2015 and 2016, and the second quarter of CY 2017. Financial statement data was developed using MCP annual cost report data and subsequently reconciled using SNL Financial.

(iii) Data sources

The historical encounter data experience used for this certification is submitted by the five MCPs on an ongoing basis. This data is stored in ODM's Medicaid Information Technology System (MITS). Medicaid enrollment and encounter data stored in MITS was provided to us for the purposes of developing the CY 2018 capitation rates. CY 2016 annual cost report data was also provided to us. The cost report data is contained in Microsoft Excel files that the MCPs submit to ODM.

(iv) Sub-capitation

Sub-capitated data is identified separately in both the encounter and cost report experience.

Encounter Data: MCPs indicated whether an encounter is sub-capitated and "shadow priced" at the detail and header level, depending on how the encounter was paid. In the payment arrangement field ('CDE_PAY_ARR'), code '05' indicates sub-capitated arrangements. This field was used to separate sub-capitated claims from the non-sub-capitated encounter data.

Cost Report: We relied on the separate reporting of non-sub-capitated and sub-capitated experience by the MCPs in the medical cube worksheets of the CY 2016 cost reports. In the MCP cost reports, sub-capitated expenditures represent the amounts paid by MCPs for sub-capitated services, rather than "shadow priced" claims as illustrated in the CY 2016 encounter data.

(b) Availability and quality of the data

(i) Steps taken to validate the data

The base experience used in the capitation rates relies on cost report and encounter data submitted to ODM by participating MCPs. Managed care eligibility is maintained in MITS by ODM. The actuary, the MCPs, and ODM all play a role in validating the quality of encounter and cost report data used in the development of the capitation rates. The MCPs play the initial role, collecting and summarizing data sent to the state. ODM's Bureau of Health Research and Quality Improvement, Data Analytics section focuses on encounter data quality and MCP performance measurement, with measures focused on completeness, accuracy, and comparison between data sources. Appendix L of ODM's contract with the MCPs stipulates encounter data specific submission and quality standards. Additionally, we perform independent analysis of encounter data and cost report data to evaluate the quality of the data being used in the rate development process. Below is a summary of measures specific to each quality area that are applied by either Milliman or ODM.

Completeness

Encounter Data

ODM applies several measures to the MCP-submitted encounter data to evaluate the completeness of the data. A sample of measures focused on the completeness of the data include:

- Encounter data volume measures by population and service category;
- Incomplete rendering provider data;
- NPI provider number usage without Medicaid / reporting provider numbers;
- Percentage of encounters in an MCP's fully adjudicated claims file not present in the QDM encounter data files; and,
- Percentage of encounters in the ODM encounter data files not present in the MCP's fully adjudicated claims file.

We also summarize the encounter data to assess month to month completeness of the encounter data. These measures include:

- Encounter per member per month (PMPM) by MCP and high level service categories;
- MCP distribution of members by annual encounter-reported expenditures; and,
- MCP distribution of members by monthly encounter-reported expenditures.

These measures are applied to identify any months where encounter data volume is unusually large or small, indicating a potential issue with the submitted encounter data.

The CY 2016 encounter data used in the development of the rates was adjudicated through March 31, 2017. As noted in this report, claims completion is applied to the encounter data for estimated CY 2016 claims adjudicated after March 31, 2017.

Cost Report Data

MCPs submit quarterly and year-end annual cost report data to ODM. We reviewed each MCP's quarterly and annual cost reports to identify large data variances, incomplete data, and other reporting issues. These issues are provided to each MCP by ODM and the cost reports are re-submitted to ODM as necessary.

The year-end cost report data must be certified by two officers of each MCP and externally audited. The year-end annual cost report is completed by the MCPs using claims incurred and paid through March 31st of the following calendar year. The three months of claims run-out limits the impact of the IBNP estimate on the incurred expenditure estimates used in the development of the rates.

Accuracy

Encounter Data

We also review the accuracy of the encounter data by reviewing the percentage of matched encounters between the ODM encounter data files and outside data sources illustrating an MCP's fully adjudicated claims files where a payment amount discrepancy is identified.

Outside data sources include MCP Cost Report submissions along with NAIC financial statement information. We also review the encounter data to ensure each claim is related to a covered individual and a covered service. We summarize the encounter data into an actuarial cost model format. Annual base period data summaries are created to ensure that the data for each service is consistent across the health plans and with prior historical periods. Stratification by rate cell facilitates this review, as it minimizes the impact of changes in population mix. This process identifies MCP and service category combinations that may have unreasonable reported data.

Cost Report Data

As stated in the *Completeness* section, MCPs submit quarterly and annual cost-report data to ODM. In terms of accuracy measures, the process of submitting both quarterly and annual reports identifies unreasonable or inconsistent values in the data among cost report submissions. In addition to utilization and cost metrics, financial measures such as medical loss ratio, underwriting margin, and administrative loss ratio are tracked across plans and rate cells. These metrics enable us to quickly identify potential cost allocation issues. We also evaluated the cost report expenditures in relation to statutory financial statements for each MCP to ensure expenditure differences were reasonable.

Consistency of data across data sources

We performed a detailed review of the encounter data used in the development of capitation rates effective January 1, 2018. Assessing the encounter data for consistency with the MCP cost reports was a vital part of the rate development process. We reviewed utilization and cost metrics by rate cell and region for CY 2016 encounter data and cost reports. Experience was reviewed for non-sub-capitated services, sub-capitated services, and in aggregate. Aggregate expenditures in the encounter data were approximately 2% less than aggregate expenditures in the cost report data (prior to any data quality adjustment). Differences between the encounter data and cost report expenditures were generally greater in rate cells where a large portion of the expenditures were sub-capitated, due to differences in the reporting of sub-capitated expenditures between the two data sources (shadow-priced versus ceded premium).

We also reviewed the consistency of other data sources that have been used to inform assumptions in the rate setting process:

- **Eligibility** – Monthly enrollment in eligibility files received by ODM was reconciled with publicly available values on ODM's website.
- **Re-priced inpatient claims experience** – To support our analysis of the impact of the APR-DRG changes during the historical experience period and rate period, we received re-priced inpatient encounter records from ODM. The claims experience included the actual MCP paid amount, along with claims re-priced to ODM's fee schedule. We confirmed the MCP paid amount was consistent with the encounter experience we had previously received, and confirmed the re-priced amounts were consistent with ODM's published inpatient hospital fee schedule.
- **Re-priced outpatient claims experience** – To support our analysis of the impact of EAPG implementation, we received re-priced outpatient encounter records from ODM. The claims experience included the actual MCP paid amount, along with claims re-priced to ODM's fee schedule. We confirmed the MCP paid amount was consistent with the encounter experience we had previously received, and confirmed the re-priced amounts were consistent with ODM's published outpatient hospital fee schedule.

(ii) Actuary's assessment

As required by Actuarial Standard of Practice (ASOP) No. 23, Data Quality, we disclose that Milliman has relied upon certain data and information provided by the Ohio Department of Medicaid and their vendors, primarily the MCPs. The values presented in this letter are dependent upon this reliance.

While there are areas for data improvement, we found the encounter data to be of appropriate quality for developing the CY 2018 capitation rates. After applying a series of data quality adjustments to both the encounter and cost report data, aggregate claims in the encounter data were within 0.1% of aggregate claims in the cost report data on a PMPM basis.

(iii) Data concerns

Through discussions with ODM and various data analyses, we were made aware of and confirmed encounter data quality concerns.

(c) Appropriate data

(i) Use of encounter and fee-for-service data

Fee-for-service (FFS) data was used as the base experience to develop the capitation rates for the Adoption and Foster Kids (AFK) rate cell. We reviewed and shared data summaries of the AFK FFS data with ODM to validate that it was appropriate for use. FFS experience was also used to estimate the potential impact of ODM's policy decision to move certain periods of retro-active FFS eligibility into the managed care delivery system. Additionally, FFS data was used to estimate the impact of moving the BCCP, BCMH, and DD populations into managed care where necessary. Managed care encounter data was used in the development of the capitation rates for all other populations. The base data reflects the historical experience and covered services used by the covered populations.

(ii) Use of managed care encounter data

Managed care encounter data was the primary data source used in the development of the capitation rates.

(d) Reliance on a data book

Development of the capitation rates did not rely on a data book or other summarized data source. We were provided with detailed claims data for all covered services and populations. We created data books summarizing CY 2016 encounter data, which were shared with ODM and participating MCPs.

iii. Data adjustments

Capitation rates were developed primarily from CY 2016 encounter data. Adjustments were made to the base experience for data quality, completion, reimbursement changes, managed care efficiencies, and other program adjustments.

(a) Credibility adjustment

The MMC program, as represented in the base experience, was fully credible. No adjustments were made for credibility.

(b) Completion adjustment

The capitation rates are based on CY 2016 experience. Encounter data is paid through March 31, 2017. Completion factors were developed by summarizing encounter data and applying traditional actuarial techniques to develop estimates of incurred but not paid (IBNP) liability.

First, we stratified the data by category of service and population groupings. Claims for each of these population-service category stratifications were analyzed and formed into lag triangles by paid and incurred month. Claim completion factors were developed for each month of the base experience period, based on historical completion patterns. Completion factors developed through the use of encounter data were compared to MCP reported IBNP liability estimates in the CY 2016 MCP Cost Reports. The completion factors selected were developed by blending MCP reported IBNP with our IBNP estimates.

The monthly completion factors were applied to CY 2016 non-sub-capitated experience to estimate the remaining claims liability for the calendar year. Results were aggregated into annual completion factors for each calendar year. For the AFK population, completion factors were developed through a review of historical fee-for-service claims experience.

(c) Errors found in the data

Through discussions with ODM and our independent review of the data, we were made aware of and confirmed data quality concerns. After applying a series of data quality adjustments, composite encounter claims were reconciled within approximately 0.1% of composite MCP cost report claims on a PMPM basis.

(d) Program change adjustments

The subsections below include details related to the program and reimbursement changes that have occurred in the MMC program since January 1, 2016, the beginning of the base experience period used in the capitation rate development.

Calendar Year 2016

Hydroxyprogesterone Prior Authorization Modifications.

Based on conversations with ODM, we understand that prior authorization for doses of Makena have been loosened. Makena is a form of progesterone that is used to reduce the risk of premature births. We reviewed the historical experience of Makena along with the lower cost alternative, compounded 17-hydroxyprogesterone (17P). We applied an adjustment for increased dispensing of Makena to the pharmacy-retail, professional immunizations & injections, and outpatient-other categories of service (COS) for female rate cells.

James Cancer Center Reimbursement Adjustment.

For James Cancer Center, reimbursement for hospital services was set at 97% of the calculated cost-to-charge ratio for services incurred from October 1, 2014 through June 30, 2015, 94% of the calculated cost-to-charge ratio for services incurred from July 1, 2015 through June 30, 2016, and 91.7% of the calculated cost-to-charge ratio for services incurred after July 1, 2016². CY 2016 hospital experience from James Cancer Center was re-priced to reflect reimbursement rates effective January 1, 2018. This was calculated simultaneously with other inpatient reimbursement changes.

Nursing Facility Policy Changes.

For the CFC and ABD populations, nursing facility stays were required to be covered by MCPs for the month of admission and the next consecutive month during January through June 2016. After this point in time, a member is transitioned out of the MMC program and receives Medicaid services on a fee-for-service basis. Effective July 1, 2016, nursing facility stays in the ABD and CFC populations were required to be covered by the MCPs for the month of admission and two consecutive months.

We estimated the increase in nursing facility utilization associated with this policy change. We developed this estimate by adding up to one month of nursing facility utilization for every CFC and ABD nursing facility stay with a duration of three or

² <http://codes.ohio.gov/oac/5160-2-22>

more months in January through June 2016, where the third month of the stay was covered under fee-for-service after the recipient exited managed care. For the Extension population, MCPs will continue to cover nursing facility stays as long as medically necessary and therefore no rate adjustment was required.

Nursing Facility Program Changes.

Nursing Facility (NF) per diems were rebased effective July 1, 2016. Along with the rebasing, ODM updated the resource utilization group (RUGs) methodology used to measure resident acuity. The methodology was updated from RUGs III to RUGs IV to coincide with the calculation of new rate components during the rebasing process. Along with the per diem update, Trumbull County was reassigned from Peer Group 3 to Peer Group 2. Lastly, as of July 1, 2016 the gross daily rate paid for the lowest acuity individuals in Ohio NFs was reduced from \$130 per resident day to \$115 per resident day to more closely correspond with the expected cost of serving these individuals. We applied adjustments to the nursing facility category of service to account for this program change.

Calendar Year 2017

Hepatitis C Fibrosis Level Protocol.

Effective July 1, 2017, MCPs were required to modify prior authorization criteria for hepatitis C medications to allow for individuals with an F2 fibrosis score. We analyzed MCPs' prior authorization criteria for hepatitis C medications in the state of Ohio and observed significant variation among the plans. Additionally, we observed a delayed utilization increase associated with modifying hepatitis C prior authorization criteria in other states. Hepatitis C utilization was increased by approximately 50% to account for the change in fibrosis level protocol.

Multiple Birth Payment Changes.

Effective January 1, 2017, ODM pays for secondary and third deliveries of a multiple birth. The delivery of twins and triplets receive an additional payment at a reduced rate. A single delivery, or the first delivery of a multiple birth, is reimbursed at 100% of the amount specified in appendix DD to rule 5160-1-60³. Secondary births are reimbursed at 50%, while third deliveries are reimbursed at 25%. No additional payment is made for deliveries after the third of a multiple birth.

It should be noted that the total payment made is the lesser of the provider's submitted charge and the total payment calculated under the methodology outlined above. We evaluated the impact of this program adjustment to the CFC and Extension delivery kick payment (DKP). Note that separate DKPs will not be provided for multiple births. We adjusted the DKP based on the prevalence of multiple birth deliveries in the MMC population.

Potentially Preventable Readmissions (PPR).

Effective January 1, 2017, hospitals with excessive preventable readmissions are penalized in the form of hospital-specific base rate reductions. For hospitals with actual-to-expected readmission ratios greater than 1.0, a base rate reduction of 1% is applied. This program change was calculated simultaneously with other inpatient reimbursement changes.

Respite Service Expansion.

Effective January 1, 2017, eligibility for respite services was expanded so that more children may access the benefit. This service expansion included both SSI and non-SSI children. Eligibility is based on severe emotional disturbance (SED) and substance-use disorder (SUD) diagnosis criteria established by ODM. We reviewed historical experience for respite services, and adjusted our assumed take-up rates based on the low utilization observed as of June 2017. In aggregate, the CY 2018 capitation rates include approximately \$2 million for respite services.

Calendar Year 2018

Inpatient Hospital Facility Reimbursement Changes.

Effective January 1, 2018, ODM will rebase its inpatient hospital base rates through the continued use of All Patients Refined Diagnosis Related Groups (APR DRG). This includes revised APR DRG relative weights along with updated hospital base rates. In addition, ODM updated inpatient APR DRG relative weights effective July 4, 2017 to account for budgetary items and a legislative mandate. This included a 3.7% relative weight reduction for a budgetary item, along with an additional decrease to delivery DRGs due to a legislative mandate. This legislative mandate requires ODM to provide separate

³ <http://codes.ohio.gov/oac/5160-1-60>

reimbursement for long-acting reversible contraceptives (LARCs). ODM estimates that the decrease to delivery DRGs will be budget neutral to the separate LARC payments.

To estimate the impact of this reimbursement change, we received re-priced CY 2016 inpatient hospital encounter experience to reflect reimbursement rates that will be effective on January 1, 2018 from ODM. The aggregate percentage change in ODM reimbursement was calculated by rate cell. This percentage change was applied to the inpatient paid claims experience, weighted by the proportion of total inpatient encounter data expenditures subject to reimbursement based on APR DRG pricing. The adjustment does not reflect hospital charge inflation impacting outlier payments. The impact of outlier payments is addressed in the development of prospective unit cost trends. Separate adjustments were developed for maternity delivery and non-maternity delivery inpatient services. We did not apply adjustments to nursing facility utilization.

Outpatient EAPG Rebasing.

Effective January 1, 2018, ODM will rebase its outpatient hospital payments through the continued use of the Enhanced Ambulatory Patient Grouping System (EAPG). This includes EAPG relative weights and base rates by hospital. We evaluated the estimated impact to outpatient expenditures associated with EAPG implementation. The impact of outpatient reimbursement changes was calculated by region and rate cell. Adjustments were calculated through the use of data provided by ODM, which we reviewed for reasonableness.

Nursing Facility Reimbursement Changes.

ODM updates nursing facility payment rates and acuity scores on a semi-annual basis. We applied adjustments to reflect the impact of the semi-annual per diem update. Adjustments were applied to the nursing facility category of service, and vary based on differences in base nursing facility experience by rate cell and region.

Other Fee Schedule Changes.

We reviewed other known fee schedule changes. Included in known fee schedule changes is compliance with the most recent budget bill (MCDLCD50 and MCDLCD77). Effective January 1, 2018, ODM will set professional rates for certain neonatal and newborn services at 75% of the Medicare rates for these services. Because of this increase, clinical laboratory, molecular pathology, and pathology services will be reduced to prevent an increase in aggregate Medicaid expenditures. Additionally, MCDLCD77 in the budget bill reduced the maximum Medicaid payment for radiology, clinical laboratory, molecular pathology, and pathology services by five percent, effective January 1, 2018. Through the use of 5160-1-60 Appendix DD and 5160-11-09, we estimated the impact of these fee schedule changes and applied rating adjustments to impacted categories of service.

Full Coverage of Institutions for Mental Disease (IMD) Under Age 21 and Over Age 64.

Effective January 1, 2018, MCPs will be required to cover both the professional and facility component of IMD stays for members under 21 and over 64 years of age. Currently, MCPs are responsible for professional services only for the under 21 and over 64 populations. We estimated the impact of this program change through the use of fee-for-service IMD experience during CY 2016.

Population Morbidity Changes.

We applied adjustments to account for estimated population morbidity differences between calendar year 2016 and calendar year 2018. Adjustments were applied to account for known population changes based on data provided by ODM. Items considered when developing these adjustments are outlined below.

- **Deceased Members.** We received a list of the date of death for Medicaid members in the state of Ohio. Using this information, we removed CY 2016 member months associated with deceased members. This adjustment resulted in a minor increase to PMPM costs, as member months were removed with minimal corresponding claims cost.
- **Disenrolled Members.** We received a list of member IDs that were involuntarily disenrolled during the summer of 2017. In developing the CY 2018 capitation rates, we removed historical claims and member months for these members.
- **Duplicate Member IDs.** We were informed of the potential for duplicate member IDs in the vendor file eligibility information we received. Additionally, ODM provided us with a listing of potential duplicate member IDs. We removed member months associated with these member IDs. We also applied adjustments for other duplicate member IDs based on our observations in using the vendor eligibility files.

- **Mandatory Enrollment of BCCP and BCMH.** Effective January 1, 2017, the Bureau of Children with Medical Handicaps (BCMh) and Breast and Cervical Cancer Project (BCCP) populations began enrolling in mandatory managed care. The BCCP population was assigned to ABD rate cells, while the BCMH population is subject to the standard eligibility process. Effective January 1, 2018 the Department of Health will increase screening for the BCCP eligibility group based on the following criteria:
 - Cervical cancer screening and diagnostic services for women ages 21 through 64.
 - Breast cancer screening if a physician determines it is warranted based on a clinical breast examination, family history, or other factors for women ages 25 through 39.
 - Breast cancer screening and diagnostic services for women ages 40 through 65.

Women determined to be pre-cancer or have cancer may be eligible for Medicaid through an existing pathway or the BCCP eligibility group. The income limit for the BCCP eligibility group will be increase from 200% FPL to 250% FPL. We estimated the morbidity impact associated with these population based on enrollment information through July 2017. Based on information provided by ODM, actual BCCP enrollment was increased by 10% to account for eligibility changes.
- **Voluntary Enrollment of DD Waiver Population.** Effective January 1, 2017, the Developmental Disabilities (DD) waiver population was eligible for voluntary enrollment in managed care. Waiver services continue to be provided on a FFS basis. We estimated the morbidity impact associated with this population based on enrollment information through July 2017.

Targeted Reimbursement.

We reviewed MCP provider reimbursement levels in CY 2016 in relation to ODM's FFS reimbursement methodologies. The 2016 MCP Survey required each participating MCP to report its provider reimbursement methodologies by population (CFC, ABD, and Extension), region, and service category. Additionally, reimbursement levels in relation to Ohio Medicaid's fee-for-service reimbursement schedule were required to be reported at the same level of granularity. This information was provided for the following service categories:

- Inpatient Hospital;
- Outpatient Hospital Emergency Room;
- Outpatient Hospital Other;
- Professional;
- Radiology / Pathology / Laboratory;
- Pharmacy; and,
- Other.

Additionally, we received inpatient encounter data from ODM that was re-priced to the FFS fee schedule. We reviewed the ratio of MCP paid to FFS reimbursement for inpatient admissions where the ratio between MCP paid and FFS re-priced amounts was within a 0.9 to 1.2 corridor. In discussion with ODM, we adjusted the base experience to reflect a targeted reimbursement ratio between the composite base experience MCP reimbursement and fee-for-service reimbursement. The targeted reimbursement ratios are inclusive of 2018 fee-for-service reimbursement changes.

Program changes deemed immaterial to benefit expenses in the rate period

Adjustment factors were developed for policy and program changes estimated to **materially** affect the managed care program during CY 2018 that are not fully reflected in the CY 2016 base experience. Program adjustments were made in the rate development process to the extent a policy or reimbursement change is deemed to have a material cost impact to the MCPs. *We defined a program adjustment to be 'material' if the total benefit expense for any individual rate cell is impacted by more than 0.1%.* In addition, program adjustments that were determined to be material in prior rate setting activities, or are material to the MyCare Ohio program, are considered material. The following is a list of program adjustments deemed immaterial based on our review of the experience data and policy change.

- **Acupuncture Coverage.** Effective January 1, 2017, acupuncture services for low back pain and migraines became a covered service. On January 1, 2018, acupuncture services will be expanded to include new provider types along with electrical stimulation. Projected acupuncture expenditures are estimated to be immaterial.
- **APRN Prescribing.** Effective with the passage of the most recent budget bill, there was a provision (MCDMD49) allowing an Advanced Practice Registered Nurse (APRN) who is certified in psychiatric mental health by a national certifying organization to prescribe atypical antipsychotics and antidepressant drugs without going through prior

authorization. This provision already exists for psychiatrists. Based on the existing high rate of prescribing for preferred agents, we do not anticipate a material shift in volume to more expensive agents.

- **Advanced Imaging Reimbursement Changes.** Effective January 1, 2017, ODM modified its reimbursement policy for radiology services that occur when more than one radiology procedure is performed by the same provider or provider group for an individual patient on the same date. Payment for the primary procedure is made at 100% of the Medicaid fee schedule amount. Each additional professional component of the procedure is reduced to 95% of the Medicaid fee schedule amount, compared to the prior policy of paying each additional professional procedure at 75% of the Medicaid fee schedule amount.
- **Dental Program Changes.** Effective April 1, 2018, Silver Diamine Fluoride (SDF) will be included as a covered dental benefit in the MMC program for all ages. It is anticipated that utilization of SDF will be low in the near-term. In addition, effective January 1, 2018, coverage for tobacco cessation and counseling services will be a covered dental benefit. Based on information provided by ODM, coverage of SDF and tobacco cessation is estimated to be budget neutral.
- **ESRD Reimbursement Changes.** Effective July 1, 2017, reimbursement for End-Stage Renal Disease (ESRD) clinics are based on the calendar year 2016 prospective payment system (PPS) base rate published by the Centers for Medicare and Medicaid Services (CMS). Reimbursement for services were established as follows:
 - Chronic maintenance dialysis performed in an ESRD dialysis clinic: 58.75% of PPS base rate;
 - Chronic maintenance dialysis performed in a home setting: 25.18% of PPS base rate;
 - Dialysis support services: 33.75% of PPS base rate; and,
 - Dialysis with self-care training: 67.75% of PPS base rate.

We reviewed CY 2016 experience data for applicable services and believe that this program change is not material to the CY 2018 rate development process.

- **Insect Repellent Coverage.** Effective June 6, 2016, ODM began requiring the coverage of insect repellent for enrolled members. Based on a review of the coverage requirements, estimated expenditures for this service coverage are immaterial.
- **IMD as an "In Lieu of" Service.** Effective July 1, 2017, ODM began permitting the use of IMDs as an "in lieu of" service for the 21 to 64-year-old population for up to 15 days per month. This "in lieu of" service setting was implemented in compliance with the conditions outlined in the final Medicaid managed care regulations. Authorization of this setting of care is optional to the managed care plan and member as an "in lieu of" service. Consistent with the rate-setting guidance published by CMS, we did not assume the unit cost of the IMD, and instead assumed the unit cost for that of existing state plan providers. This change will introduce a new setting of care for existing covered services. Based on feedback from ODM, we have no evidence of suppressed utilization for services that could be performed in an IMD. As a result, we do not anticipate additional expenditures associated with inpatient psychiatric and substance use utilization during CY 2018.
- **Managed Care Day One.** Effective January 1, 2018, MMC members will be enrolled in a MCP the first of the month *coinciding* with the date of Medicaid eligibility approval. Prior to this program adjustment, MMC members are enrolled in a MCP the first of the month *following* the date of approval. Managed Care Day One is estimated to result in one additional month of MCP enrollment for many new MMC members. While member months are estimated to increase by 1.5% to 2.0%, our analysis produced an immaterial change in PMPM expenditures in the MMC program. Projected member months for calendar year 2018 reflect an assumed increase in managed care enrollment associated with this program change.
- **Occupational Therapy Provided in FQHCs.** Federally Qualified Health Centers (FQHC) did not historically receive payment for providing occupational therapy (OT) services; however, physical therapy (PT) was provided in FQHCs. Effective October 1, 2016, QT was added to this list of services provided by FQHCs. We anticipate little utilization of OT by FQHCs during CY 2018.
- **Comprehensive Primary Care (CPC).** In CY 2018, a portion of the MMC population will be enrolled in the Ohio CPC program. The care management payments made to these providers will not be funded by the MCPs; however, providers will be eligible for gain sharing payments funded by the MCPs if predetermined performance metrics are achieved. It is our understanding that to receive a gain sharing payment, a provider would need to

achieve a cost of care level lower than historical levels. For this reason, an adjustment was not applied in the CY 2018 rate setting process for CPC, as gain sharing payments are assumed to be offset by the cost of care savings achieved by the CPC providers. It should also be noted that we did not reflect a cost of care reduction associated with CPC providers achieving savings.

- **Podiatry Program Change.** Under Ohio Medicaid Rule 5160-7-03, changes were proposed to covered podiatric services to remove the program limit of one LTCF visit per month by a podiatrist. Based on feedback from ODM, projected expenditures are assumed to be immaterial.
- **Third Party Liability (TPL) Collections.** ODM will contract with HMS for the purpose of pursuing third party liability (TPL) recoveries for MMC claims experience. This collection will occur 12 months after claim payment, at which point the MCP will be unable to obtain these recoveries. We believe this program change will be immaterial to the capitation rate development process.
- **Wheelchair Benefit Changes.** Effective January 1, 2017, new coverage and payment policies for wheelchairs and associated accessories were adopted. Analyses completed by ODM suggest that the payment policy changes will result in increases to base payments for wheelchairs, which will be offset by decreases to wheelchair accessory payments.

Each of the program adjustments listed above were determined to be immaterial on a stand-alone basis (i.e., impacted the rates by less than 0.1%). We evaluated the composite impact of all of the immaterial items listed above to assess whether an aggregate impact should be applied in the CY 2018 rate development process. Based on this analysis, the impact of immaterial program adjustments is immaterial on a composite basis (i.e., impacted the rates by less than 0.1%), so no further adjustments were applied.

(e) Exclusion of payments or services from the data

The following adjustments were made to the base experience data to reflect non-state plan services, uncollected co-pays, pharmacy rebates, third party liability recoveries, and non-encounter claims payments.

A. Services excluded from initial base data summaries

A.1. Non-State Plan Services

We excluded all services included in the encounter data that do not reflect approved state plan services (nor are an approved in-lieu-of service).

B. Adjustments made to base data

B.1. Uncollected Co-pays

Adjustments were made to reflect fee-for-service co-pay amounts that were not collected by the MCPs in 2016. Co-pay amounts were estimated by applying ODM's co-pay policies to the MCP encounter data. Separate adjustments were made for emergency room, dental, vision, and pharmacy categories of service based on the uncollected co-pay amounts as a percentage of CY 2016 expenditures. Co-pay adjustments were not applied to children or pregnant women populations, with the exception of co-pays for vision services for pregnant women. Adjustments to account for uncollected co-pays reduced the base experience data by approximately 0.3%.

B.2. Pharmacy Rebates

Based on an analysis of CY 2016 annual cost report data, retail pharmacy expenditures were reduced by supplemental rebates. We reviewed CY 2016 historical experience period to assess a reasonably attainable level of supplemental pharmacy rebates. For the AFK population, we assumed an amount of Pharmacy Rebates consistent with the CFC and ABD child populations. In aggregate, supplemental rebates are assumed to be approximately 5.0% to 5.5% of total pharmacy expenditures.

B.3. Third Party Liability/Fraud and Abuse

In addition to actual cost avoidance reflected in the encounter data, we estimated additional third party liability (TPL) and fraud recoveries based on data available in CY 2016 cost report and MCP surveys. These data sources indicated that

approximately 0.3% of total claims were recovered and not reflected in the baseline experience data. We adjusted encounter baseline data by region to reflect an estimated amount of TPL and fraud recoveries using data reported by the MCPs. For the AFK population, we assumed an amount of TPL/Fraud and Abuse recoveries consistent with reported values for the CFC and ABD child populations.

B.4. Non-encounter Claims Payment

We made an adjustment to the encounter data base experience period to reflect non-claim payments made to providers for items such as shared savings payments, quality incentives, and other similar provider incentive payments that are not reflected in the base data or in other components of the capitation rate. We have reviewed the information provided by the MCPs and included approximately \$8.5 million in payments in the benefit cost component of the capitation rate development.

B.5. Net Reinsurance

Ohio Administrative Code requires MCPs contracted with ODM for the MMC program to carry reinsurance for high cost inpatient claims. We have adjusted inpatient expenses in the historical period by the net cost of reinsurance (reinsurance premiums less reinsurance recoveries) as reported in the CY 2016 annual cost report data. The aggregate statewide reinsurance loss ratio for MCPs in CY 2016 was approximately 83% (reinsurance recoveries / reinsurance premiums). A statewide estimated reinsurance premium by rate cell was developed by taking statewide reinsurance recoveries for each rate cell and dividing by the 83% loss ratio. The statewide rate cell reinsurance premium estimates were further adjusted based on estimated regional reinsurance loss ratios. Reinsurance recoveries were based on amounts reported in MCP cost report data. While we have not changed the aggregate amount of MMC reinsurance premiums reported, we believe these adjustments allocate the reinsurance premium on a more actuarially sound basis at the rate cell level. In aggregate, net reinsurance increased projected benefit expenses by approximately 0.1%.

B.6. Sub-capitated Arrangements

Based on discussions with ODM, we understand that sub-capitated medical claims expenditures reported in the CY 2016 annual cost reports are understated for region and rate cell cohorts included in the MCPs' arrangement with Partners for Kids (PFK). The PFK arrangement includes CFC and ABD child rate cells in the South Central and Southeast regions. Upon reviewing shadow priced claims provided in the encounter data, we developed a missing claims adjustment to apply to PFK regions and rate cells. The adjustment increased the medical benefit cost component of the capitation rate development by a combined amount of approximately \$46 million for the affected CFC Children and ABD <21 rate cells.

3. PROJECTED BENEFIT COST AND TRENDS

This section provides information on the development of projected benefit costs in the capitation rates.

A. RATE DEVELOPMENT STANDARDS

i. Final Capitation Rate Compliance

The final capitation rates are in compliance with 42 CFR 438.4(b)(6) and are only based on services outlined in 42 CFR 438.3(c)(1)(ii) and 438.3(e). Non-state plan services provided by the MCPs have been excluded from the capitation rate development process. During CY 2016, the MCPs did not provide any in-lieu-of services. Effective July 1, 2017, ODM began permitting the use of IMDs as an in-lieu-of service for the 21 to 64-year-old population for up to 15 days per month. We do not anticipate a material amount of additional expenditures due to this change, and have not projected any additional benefit costs.

ii. Basis for Variation in Assumptions

Any assumption variation between covered populations is the result of program differences and is in no way based on the rate of Federal financial participation associated with the population.

iii. Benefit Cost Trend Assumptions

Projected benefit cost trend assumptions are developed in accordance with generally accepted actuarial principles and practices. The primary data used to develop benefit cost trends is historical claims and enrollment from the covered populations.

iv. In-Lieu-Of Services

The projected benefit costs do not include costs for in-lieu-of services.

v. Benefit expenses associated with members residing in an IMD

We reviewed benefit costs for enrollees aged 21 to 64 during the base experience period to identify costs associated with an Institution for Mental Diseases (IMD) stay of more than 15 days in a month and any other MCP costs for services delivered in a month when an enrollee had an IMD stay of more than 15 days. These claims were excluded from the base experience data.

vi. IMDs as an in-lieu-of service provider

Not applicable. The projected benefit costs do not include costs for in-lieu-of services.

B. APPROPRIATE DOCUMENTATION

i. Projected Benefit Costs

This section provides the documentation of the methodology utilized to develop the benefit cost component of the capitation rates at the rate cell level.

ii. Development of Projected Benefit Costs

(a) Description of the data, assumptions, and methodologies

This section of the report outlines the data, assumptions, and methodology used to project the benefit costs to the rating period. The baseline benefit costs were developed using the following steps:

Step 1: Create per member per month (PMPM) cost summaries

The capitation rates were developed from historical claims and enrollment data from the MMC enrolled populations. This data consisted of CY 2016 incurred encounter data that has been submitted by the MCPs. Additionally, we utilized CY 2016 Fee-for-Service (FFS) claims data to develop capitation rates for the Adoption and Foster Kids population.

Step 2: Apply data quality adjustments

We applied data quality adjustments to the CY 2016 incurred encounter data submitted by the MCPs. This process included adjustments for known missing claims reported in CY 2016 MCP Survey submissions. In situations where there are known discrepancies with MCP encounter data, we applied adjustments using CY 2016 annual cost reports.

Step 3: 1634 conversion rate cell reassignment

Effective August 1, 2016, Ohio converted from the status of a 209(b) to a 1634 state for disability determination. As a 209(b) state, Ohio's eligibility determination standard was more restrictive than the criteria used by the Social Security Administration (SSA). Under the 1634 conversion, Ohio has adopted the SSA definition of disability and extended Medicaid eligibility to all individuals who receive Supplemental Security Income (SSI). Individuals with SSI are automatically enrolled in Medicaid. Additionally, on July 31, 2016, ODM eliminated the Medicaid spend down program. A 1915(i) state plan option created a special benefit program for adults with serious and persistent mental illness (SPMI) with income up to 225% of the federal poverty level. To ensure that impacted members have sufficient time to transition to other coverage sources, ODM requested a waiver of ABD redeterminations. This pause in redetermination resulted in existing ABD members not

being subject to the 1634 eligibility criteria until after eligibility redetermination resumed on January 1, 2017. As of June 2017, it is our understanding that all members have been assigned rate cells based on 1634 eligibility criteria.

In developing the adjusted base data for the CY 2018 capitation rates, rate cells were reassigned based on each member's rate cell as of July 1, 2017. For members included in the CY 2016 encounter data but not enrolled as of July 1, 2017, we reassigned member rate cells based on state data exchange (SDX) files for the state of Ohio. The SDX files contain information related to which MMC enrollees receive SSI. This process produced total benefit expense equal to the CY 2016 incurred encounter data, while reflecting post-1634 member rate cell assignment.

Step 4: Apply historical and other adjustments to cost summaries

As documented in the previous section, utilization and cost per service rates from the base experience period were adjusted for a number of items, including but not limited to: incomplete data adjustments, uncollected co-pays, pharmacy rebates, TPL, and policy and program changes that occurred during CY 2016.

Step 5: Adjust for prospective program and policy changes and trend to calendar year 2018

We adjusted the CY 2016 base experience for known policy and program changes that have occurred or are expected to be implemented between the base period and the end of the CY 2018 rate period. In the previous section, we documented these items and the adjustment factors for each covered population. Assumed trend factors were applied for 24 months to the adjusted utilization and unit cost values, or per member per month (PMPM) values, as appropriate, from the midpoint of the base experience period (July 1, 2016) to the midpoint of the rate period (July 1, 2018).

As described later in this section, further adjustments were applied to the CY 2016 base experience to reflect targeted improvements in managed care efficiency for specific rate cells and service categories that are estimated to impact projected 2018 benefit expense. The PMPMs resulting from the application of these adjustments established the adjusted benefit expense by population rate cell for the rating period.

Other material adjustments - managed care efficiency

We calculated percentage adjustments to the experience data to reflect the utilization and cost per unit differential between the base experience and the levels targeted for the projection period managed care environment. We developed the targeted managed care efficiency adjustments through a review and analysis of CY 2016 utilization levels achieved by each MCP, the NYU CHPSR tool classifies emergency room utilization into four (4) primary categories as well as categories that are excluded from the grouping. The four categories include: Non-emergency, Emergency/Primary Care Treatable, Emergency-Preventable/Avoidable, and Emergency-Not Preventable/Avoidable. Subsequent to the review of the experience into these defined categories, we developed specific adjustments for the first three categories to reflect the target utilization levels for the managed care plans. The following illustrates the adjustments by emergency room classification:

Emergency Room

For the outpatient hospital emergency room service category and the corresponding physician emergency room visits category, we reviewed the following: (1) CY 2016 managed care utilization levels for each MCP and (2) the resulting classification of claims using the NYU Center for Health and Public Service Research (CHPSR) Emergency Department Algorithm. The NYU CHPSR tool classifies emergency room utilization into four (4) primary categories as well as categories that are excluded from the grouping. The four categories include: Non-emergency, Emergency/Primary Care Treatable, Emergency-Preventable/Avoidable, and Emergency-Not Preventable/Avoidable. Subsequent to the review of the experience into these defined categories, we developed specific adjustments for the first three categories to reflect the target utilization levels for the managed care plans. The following illustrates the adjustments by emergency room classification:

- Non-emergency – 20% Reduction
- Emergency/Primary Care Treatable – 10% Reduction
- Emergency – Preventable/Avoidable – 5% Reduction

When applying the adjustments listed above, reductions were taken from level 1 emergency room claims first, followed by level 2 and level 3 claims if applicable. No adjustments were made to level 4 or level 5 emergency room claims. In coordination with determination of the managed care adjustments for hospital outpatient emergency room services, we assumed that most emergency room visits reduced would be replaced with an office visit. The utilization of professional office visits and consults was increased proportionately.

Inpatient Hospital

We applied managed care adjustments to base year utilization to reflect higher levels of care management relative to the CY 2016 experience period. We identified potentially avoidable admissions using the AHRQ prevention quality indicators

(PQI). We also analyzed the frequency of re-admissions for the same DRG. Inpatient hospital managed care adjustments were developed by applying assumed reductions to potentially avoidable inpatient admissions and same-DRG readmissions. This analysis was completed at the population and regional level.

Our analysis was completed at the regional level by first reducing readmissions within 30 days, and then reducing non-readmissions for select PQIs. Inpatient hospital managed care adjustments were developed by applying a 10% reduction to same-DRG readmissions and a 5% reduction to potentially avoidable inpatient admissions. In completing our analysis, we estimated inpatient hospital unit cost changes based on the utilization reductions outlined above. No adjustments were made to corresponding inpatient physician charges to account for the potential shift of these services to an ambulatory setting. Additionally, nursing facility claims were excluded from this analysis.

Pharmacy Services

We reviewed historical pharmacy experience by therapeutic class for each MCP to estimate achievable generic drug dispensing rates (GDR), generic drug cost per script, and brand drug cost per script. For each therapeutic class, we estimated the impact of improvements in GDR and cost per script amounts by repricing MCP historical experience to levels achieved by other MCPs during the same time period. We developed pharmacy managed care efficiency adjustments by rate cell to reflect mix differences by therapeutic class due to the age, gender, and morbidity of the applicable rate cell.

Maternity Delivery Kick Payment

We reviewed the mix of vaginal and cesarean section deliveries by MCP and region to determine appropriate efficiency adjustments for the maternity delivery kick payment. Delivery managed care efficiency adjustments were developed by analyzing the percent of cesarean and vaginal deliveries by MCP and region. Vaginal delivery percentages were adjusted to levels achieved by MCPs with at least 1,000 deliveries in a region, with a minimum assumed percentage of 70%. This analysis resulted in shifting approximately 0.8% of CY 2016 deliveries from cesarean to vaginal. Managed care savings were estimated by evaluating the cost per delivery difference between cesarean and vaginal deliveries. No adjustments were made to the total number of deliveries.

Adoption and Foster Kids

For the AFK population, managed care adjustment factors were developed independently from the process outlined above. The FFS data for the AFK population was adjusted to reflect anticipated managed care efficiencies that are reasonably achievable. These estimates were developed by reviewing efficiencies that were gained in other state Medicaid programs for similar populations that were transitioned from FFS to managed care. Additionally, we reviewed the historical experience for the ABD <21 population that was transitioned to managed care on July 1, 2013. It should be noted that for AFK members that were previously enrolled in the MMC program, managed care efficiencies were set equal to their originating population.

(b) Material changes to the data, assumptions, and methodologies

Material changes to the rate development methodology include:

- **Base Encounter Data** – The 2017 rate setting process placed 75% credibility on cost report data expenditures, with 25% credibility on encounter data expenditures. The CY 2018 rate development process assumes full credibility of MCP encounter data, after applying data quality adjustments.

All material assumptions are documented in this rate certification report and the overall methodology utilized to develop the capitation rates is consistent with the prior rate-setting analysis.

iii. Projected Benefit Cost Trends

This section discusses the data, assumptions, and methodologies used to develop the benefit cost trends, i.e., the annualized projected change in benefit costs from the historical base period (CY 2016) to the CY 2018 rating period of this certification. We evaluated prospective trend rates using ODM data, as well as external data sources.

(a) Required elements

(i) Data

CY 2014 through 2016 MCP encounter was used to develop estimated prospective trend rates. The Extension population was introduced in January 2014, and as a result, there is limited data credibility during the first half of CY 2014. In developing prescription drug utilization and unit cost trends, data through the first half of CY 2017 was also reviewed.

External data sources that were referenced include:

- *National Health Expenditure (NHE) projections* developed by the CMS office of the actuary, specifically those related to Medicaid. Please note that as these are expenditure projections, projected growth reflects not only unit cost and utilization, but also aggregate enrollment growth and enrollment mix changes such as aging. For trends used in this certification, we are interested only in unit cost and utilization trends, so in general, our combinations of unit cost and utilization trends should be lower than NHE trends. NHE tables and documentation may be found in the location listed below:
<https://www.cms.gov/research-statistics-data-and-systems/statistics-trends-and-reports/nationalhealthexpenditure/nationalhealthaccountsprojected.html>
- *Express Scripts 2016 Drug Trend Report – Medicaid (February 2017)* found in the location listed below:
<https://at.express-scripts.com/lab/~media/29f13dc6da7642d6881b7e03d1c0916a.ashx>
- *Other sources:* We also reviewed internal sources that are not publicly available, such as historical experience from other programs and trends used by other Milliman actuaries.

(ii) Methodology

For internal ODM data, historical utilization and per member per month cost data was stratified by month, rate cell, and category of service. The data was adjusted for completion and normalized for historical population morbidity changes. We used linear regression to project experience during the contract period. Contract period projections were compared to base period experience to determine an appropriate annualized trend. Additional details related to key aspects of the trend development process are outlined below.

Inpatient Unit Cost Trends

As previously mentioned, an explicit adjustment has been made for changes in ODM's inpatient APR-DRG fee schedule from the CY 2016 base experience period to the fee schedule that will be in place during CY 2018. This adjustment did not include the impact of outlier payment inflation.

For inpatient unit cost trends, we used CY 2016 inpatient encounter data experience adjusted to the fee schedule that will be in place during CY 2018 to evaluate the impact of cost inflation due to outlier payments. We trended reported costs from the admission date to the midpoint of the rate period (July 1, 2018) at an annualized trend rate of six percent. The 6% annualized trend was applied to project the billed charges component of inpatient outlier payments to the midpoint of the rate period. This annualized trend rate was not utilized for any other purposes. We developed this assumption based on information from the Milliman Health Cost Guidelines™. The estimated change in inpatient cost as a result of outlier inflation was used in the development of inpatient unit cost trend assumptions.

Pharmacy trends

We developed a Medicaid Pharmacy model (trend model) for the purposes of studying and projecting detailed pharmacy trend information. The trend model summarizes pharmacy claims data by month, drug type (brand, generic, specialty brand, and specialty generic), covered population, and therapeutic class (according to GPI-4 assignments). Projected values were estimated using the base period data as a starting point and applying anticipated shifts and trends. There are several areas for consideration.

Brand patent loss

When a brand drug loses patent, the utilization often shifts from the brand drug to the new generic alternatives. Our model incorporates effective dates of patent expirations and estimated shifts in utilization as a result of patent loss.

Cost per script trends

Projected costs per script in the first month of the projection period are based on the average costs per script in the most recent three months of the experience period, adjusted for any anomalies in the data. These costs are trended forward using separate cost trend assumptions by therapeutic class for brand, generic, and specialty products.

In developing cost trends, we relied on a combination of Milliman research, publicly available industry trend reports, and the historical average wholesale price (AWP) trends using MMC encounter data. Generic drugs, which historically had modest price increases, have experienced more significant price increases in recent years, due to ingredient shortages, changes to legislation, and consolidation of generic manufacturers resulting in reduced competition. However, this pattern has begun to slow, and generic trends are expected by the industry to return to more typical levels over the next few years. As a result, generic cost trends were dampened for therapeutic classes that experienced significant price increases in recent years.

Changes in utilization

To develop utilization trend assumptions, we relied on a combination of Milliman research, publicly available industry trend reports, and the historical utilization trends developed using MMC encounter data. Monthly seasonality is accounted for in our trend development.

Hepatitis C Virus (HCV) Trends

We examined detailed HCV claims data separately from our typical trend work. We summarized HCV claims by drug name, drug type (interferon, ribavirin, and all other), month, and population to understand historical utilization and price patterns for these drugs. As discussed previously, we also considered the impact of changes to the Hepatitis C Fibrosis Level Protocol.

(iii) Comparisons

Historical trends should not be used in a simple formulaic manner to determine future trends; a great deal of actuarial judgment is also needed. We did not explicitly rely on the historical MCP encounter data trend experience due to anomalies observed in the historical trend data. We referred to the sources listed in the prior section as well as considered changing practice patterns, the impact of reimbursement changes on utilization in the MMC population, and shifting population mix.

Explicit adjustments were made outside of trend to reflect all recent or planned changes in reimbursement from the base period to the rating period.

iv. Mental Health Parity and Addiction Equity Act Service Adjustment

ODM is assessing the State's compliance with the parity standards of the Mental Health Parity and Addiction Equity Act (MHPAEA) as required by 42 CFR 438.3(c)(1)(ii). This assessment is not complete. Preliminary results of the analysis indicate compliance with MHPAEA for both quantitative and non-quantitative treatment limits. Based on the preliminary results, we have not made any rating adjustments to accommodate parity compliance.

v. In-Lieu-of Services

The projected benefit costs do not include costs for in-lieu-of services. While ODM began permitting the use of IMDs as an in-lieu-of service for the 21 to 64-year-old population for up to 15 days per month, we do not anticipate a material amount of additional expenditures due to this change and have not projected any additional benefit costs.

vi. Retrospective Eligibility Periods

(a) MCP responsibility

Under the ODM contract, beginning April 1, 2016, the MCPs became responsible for retrospective eligibility periods when the beneficiary was previously enrolled with an MCP in the MMC program less than 90 days prior to re-enrolling with an MCP. ODM will provide capitation payments to the MCPs for beneficiaries meeting this criteria. We reviewed historical eligibility meeting the MCP retro-active eligibility criteria, as well as associated FFS expenses, and did not observe material or consistent cost differences between retro-active eligibility member months (meeting the specific 90 day criteria) and managed care member months. We have not adjusted the estimated benefit expense included in the rates for the

retrospective eligibility policy change. FFS claims incurred during retrospective eligibility periods have been excluded from the base data.

(b) Claims treatment

As noted earlier, claims for retrospective eligibility periods are not reflected in the base data.

(c) Enrollment treatment

Enrollment is treated consistently with claims. We have not included retrospective eligibility in the base experience period.

(d) Adjustments

As previously mentioned, no explicit adjustment was applied to the CY 2018 rate setting as a result of the April 1, 2016 policy change, as we did not observe material or consistent cost differences between retro-active eligibility member months. In developing projected member months, we utilized enrollment data as of July 2017, and applied adjustments for population changes occurring after that point in time. This included population movements associated with the 1634 conversion, along with AFK, BCCP, and BCMH mandatory managed care enrollment.

4. SPECIAL CONTRACT PROVISIONS RELATED TO PAYMENT

A. INCENTIVE ARRANGEMENTS

i. Rate Development Standards

This section provides documentation of the incentive payment structure in the MMC program.

ii. Appropriate Documentation

Incentive payments under this plan are below 105% of the certified capitation rates paid under the contract. Effective April 1, 2018, an incentive pool will be determined by the portion of withhold that is not returned to the MCPs after a first pass review. By design, the incentive amount represented by the bonus pool is significantly less than 5% of the certified rates.

B. WITHHOLD ARRANGEMENTS

i. Rate Development Standards

This section provides documentation of the withhold arrangement in the MMC program.

ii. Appropriate Documentation

(a) Description of the Withhold Arrangement

(i) Time period and purpose

Effective April 1, 2018, ODM will implement a quality withhold arrangement for the MMC program. The withhold arrangement is measured on a calendar year basis. The withhold measures are primarily based on HEDIS metric benchmarks.

(ii) Description of total percentage withheld

Effective April 1, 2018, ODM will establish a quality withhold of 2.0% of the capitation rate, and will determine the return of the withhold based on review of each MCP's data relative to the applicable HEDIS benchmarks. The capitation rates shown in this letter are illustrated before offset for the withhold amount; however, the CY 2018 capitation rates documented in this report are actuarially sound while considering the amount of the withhold not expected to be earned.

(iii) Estimate of percent to be returned

Based on our review of MCPs' historical performance relative to the applicable HEDIS metric benchmarks, along with information provided by ODM, we believe that a full withhold return is attainable by the MCPs.

(iv) Reasonableness of withhold arrangement

Our review of the total withhold percentage of 2.0% of capitation revenue indicates that it is reasonable within the context of the capitation rate development and the magnitude of the withhold does not have a detrimental impact on the MCP's financial operating needs and capital reserves. Our interpretation of financial operating needs relates to cash flow needs for the MCP to pay claims and administer benefits for its covered population. We evaluated the reasonableness of the withhold within this context by reviewing the MCP's cash available to cover operating expenses, as well as the capitation rate payment mechanism utilized by ODM.

(v) Effect on the capitation rates

The rate is certified as actuarially sound after adjustment for the amount of the withhold not expected to be earned back.

C. RISK SHARING MECHANISMS

i. Rate Development Standards

This section provides documentation of the risk-sharing mechanisms in the MMC program.

ii. Appropriate Documentation

(a) Description of Risk-sharing Mechanism

ODM maintains a cost-neutral risk pool for high cost Hepatitis C drugs. The risk pool was introduced for the CY 2015 MMC rates to address the high cost nature of Hepatitis C treatment and the potential for the prevalence of treated Hepatitis C beneficiaries to vary between MCPs. To the extent an MCP receives a higher proportion of Hepatitis C drug expenditures in relation to other MCPs, the MCP will receive additional reimbursement from the risk sharing pool. Conversely, an MCP receiving a lower portion of Hepatitis C drug expenditures will be required to pay into the risk sharing pool. The development of the risk pool does not impact the capitation rate development process.

Hepatitis C Risk Pool: Methodology

The CY 2018 Hepatitis C drug risk pool aggregate amounts will be developed using the estimated CY 2018 Hepatitis C drug benefit expense PMPM included in the CY 2018 capitation rates, multiplied by the actual CY 2018 membership on a region and rate cell basis. The estimated CY 2018 Hepatitis C drug PMPM is developed on a prospective basis and is based on a review of historical Hepatitis C drug expenditures through June 2017. Program and policy changes developed for the CY 2018 MMC rates impacting Hepatitis C expenditures were applied to the base experience.

Please note that consistent with the prior capitation rates, the estimated CY 2018 Hepatitis C drug PMPM is based on the historical Hepatitis C drug expenditures, with no smoothing adjustment across region or rate cell. Therefore, certain region and rate cell combinations may have estimated CY 2018 Hepatitis C drug expenditures while other similar region and rate cell combinations may have zero or significantly lower estimated CY 2018 Hepatitis C drug expenditures. Please note that the estimated CY 2018 Hepatitis C drug PMPM will not be updated with actual CY 2018 Hepatitis C drug experience, but the actual CY 2018 membership will be used to develop the aggregate expenditures in the Hepatitis C drug risk pool development.

Hepatitis C Risk Pool: Schedule of Risk Pool Submissions

The following table illustrates the expected timeline for implementation of the CY 2018 Hepatitis C drug risk pools:

Ohio Department of Medicaid Medicaid Managed Care Program Capitation Rates Effective January 1, 2018 Timeline for Hepatitis C Drug Risk Pools		
Function	Interim	Final
Prescription Dates of Service	January – June 2018	January – December 2018
Prescription Paid Date	September 30, 2018	March 31, 2019
Prescription Submission Date	October 2018 cut-off	April 2019 cut-off
MCP Distribution Calculation	December 15, 2018	June 15, 2019
MCP Payment and Recoupment	December 30, 2018	June 30, 2019

Hepatitis C Risk Pool: Attestation

The CY 2018 Hepatitis C risk pools were developed in accordance with generally accepted actuarial principles and practices.

(b) Medical Loss Ratio

Description

ODM's provider agreement indicates that ODM will perform medical loss ratio (MLR) calculations for the MMC program. This includes the ABD, CFC, AFK, and Extension populations.

Financial consequences

Effective January 1, 2018, there are no financial consequences associated with MLR requirements.

(c) Reinsurance Requirements and Effect on Capitation Rates

Ohio Administrative Code requires MCPs contracted with ODM for the MMC program to carry reinsurance for high cost inpatient claims.⁴ We have adjusted inpatient expenses in the historical period by the net cost of reinsurance (reinsurance premiums less reinsurance recoveries) as reported in the 2016 annual cost report data. Reinsurance recoveries were based on amounts reported in MCP cost report data.

D. DELIVERY SYSTEM AND PROVIDER PAYMENT INITIATIVES

i. Rate Development Standards

The CY 2018 MMC capitation rates do not reflect delivery system or provider payment initiatives.

E. PASS-THROUGH PAYMENTS

MCP Hospital Incentive Payments: The MCP Hospital Incentive program was developed to incentivize hospitals to contract with the MCPs, as the State's approved hospital supplemental upper payment limit program appeared to be creating an incentive for hospitals to want their payments delivered under the FFS program. Hospitals that have an active MCP contract are eligible to receive a payment.

i. Rate Development Standards

This section provides information on the pass-through payments reflected in the CY 2018 capitation rates.

⁴ <http://codes.ohio.gov/oac/5160-26-09>

ii. Appropriate Documentation

(a) Description of Pass-Through Payments

(i) Description

The total computable funding for the program is appropriated by Ohio's General Assembly from the State's General Revenue Fund. The MCP/Hospital Incentive program was developed to incentivize hospitals to contract with the MCPs, as the State's approved hospital supplemental upper limit payment program appeared to be creating an incentive for hospitals to want their payments delivered under the FFS program. Hospitals that have an active MCP contract and provide inpatient services are eligible to receive a payment. The basis for the distribution of the MCP/Hospital Incentive payment in the capitation rates is an allocation based on the non-nursing home inpatient costs associated with each rate group/rating region combination exclusive of Extension, AFK, and maternity delivery kick payment rate cells.

(ii) Amount

The total computable funding for the program is appropriated by Ohio's General Assembly from the State's General Revenue Fund. For CY 2018, the amount is assumed to be \$162 million, excluding additional taxes and fees that are applied to the appropriation amount.

(iii) Providers receiving the payment

Hospitals that have an active MCP contract are eligible to receive a payment.

(iv) Financing mechanism

As referenced above, the total computable funding for the program is appropriated by Ohio's General Assembly from the State's General Revenue Fund.

(v) Pass-through payments for previous rating period

Appropriated amounts for the MCP/Hospital Incentive program were set at \$162 million in aggregate for each of calendar years 2014 through 2017.

(vi) Pass-through payments for rating period in effect on July 5, 2016

The rating period in effect on July 5, 2016 is the CY 2016 rating period. Appropriated amounts for the MCP/Hospital Incentive program were set at \$162 million in aggregate.

(b) Base Amount for Hospital Pass-Through Payments

Based on information provided by ODM, the \$162 million associated with the MCP/Hospital Incentive will result in total inpatient hospital expenditures materially below the amount Medicare FFS would have paid for the services. For the purpose of this certification, we did not explicitly calculate the base amount.

5. PROJECTED NON-BENEFIT COSTS

A. RATE DEVELOPMENT STANDARDS

i. Overview

In accordance with 42 CFR §438.5(e), the non-benefit component of the capitation rate includes reasonable, appropriate and attainable expenses related to MCP operation of the MMC program.

The remainder of Section I, item 5 provides documentation of the data, assumptions and methodology that we utilized to develop the non-benefit cost component of the capitation rate.

ii. PMPM Versus Percentage

The non-benefit cost was developed as a percentage of the capitation rate.

iii. Basis for Variation in Assumptions

Any assumption variation between covered populations is the result of program differences and is in no way based on the rate of federal financial participation associated with the population.

iv. Health Insurance Providers Fee

Detail regarding the health insurance providers fee is provided in a later section of this letter.

B. APPROPRIATE DOCUMENTATION

i. Development of non-benefit costs

(a) Description of the data, assumptions, and methodologies

Data

The primary data sources used in the development of the CY 2018 non-benefit costs are listed below:

- Annual cost report data submitted by the MCPs.
- CY 2016 MCP Survey completed by each MCP.
- Statutory financial statement data for each of the MCPs.
- Average costs from the financial statements of Medicaid health plans nationally, as summarized by Palmer and Pettit. These reports date from 2012 through 2017, analyzing financial results from 2011 through 2016. A link to the 2017 report analyzing administrative costs for 2016 is here: <http://www.milliman.com/insight/2017/Medicaid-risk-based-managed-care-Analysis-of-administrative-costs-for-2016>

Assumptions and methodology

In developing the administrative costs, we reviewed historical administrative expenses for the MMC program along with national Medicaid health plan administrative expenses. We considered the size of participating health plans and the resulting economies of scale that could be achieved, along with the benefits covered and the demographics of the MMC population.

Historical reported administrative expenses were reconciled between the available data sources for the purpose of evaluating the quality of the data provided. CY 2016 cost report administrative expenses were analyzed by MCP for reasonableness and completeness of the data provided. This data formed the baseline for projected 2018 administrative expense amounts. There is a significant amount of variation in the reporting of administrative expenses between the five MCPs, both in the magnitude of administrative expenses and in the rate cell allocation methodology utilized. We summarized historical reported values for each MCP and reallocated these values using a percent of revenue before taxes allocation methodology. Separate administrative expense amounts were developed for CFC Children, ABD <21, ABD 21+, Delivery, AFK, and the adult CFC/EXT populations.

(b) Material changes

There are no material changes to the data, assumptions, or methodology used to develop the projected non-benefit cost.

(c) Other material adjustments

There are no other material adjustments applicable to the non-benefit cost component of the capitation rate.

ii. Non-Benefit Costs, by Cost Category

Administrative expenses have not been developed from the ground up (based on individual components). However, individual components were reviewed within MCP cost reports and financial statement data. The components may appropriately interact, and the state does not wish to dictate to the plans how these may be allocated. The CY 2018 non-benefit cost allowance is determined as a percentage of the capitation rates before fees and taxes.

In addition, CY 2018 capitation rates include amounts for the following non-benefit expense:

- **Enhanced Maternal Program:** ODM has implemented an enhanced maternal health program to target geographic areas with high infant mortality rates. ODM will provide guidelines to the MCPs for the purposes of developing strategies and systems that will provide enhanced maternal case management and reduce infant mortality rates. Funding to support MCP initiatives for the program is included in the applicable regions and female rate cells. A total of \$13.4 million was added to four female CFC rate cells, before fees and taxes, for the enhanced maternal program. The rate cells assumed to be included in the program are HF/HST 14-18 F, HF 19-44 F, HF 45+ M+F, and HST 19-64 F. The total amount of available funding for the enhanced maternal program was allocated based on the assumed percent of targeted membership in each region and rate cell.
- **MCP Hospital Incentive:** A total of \$162 million was added to CFC and ABD non-delivery rate cells, before fees and taxes, for the MCP Hospital Incentive payment. This amount was allocated based on total projected inpatient claims by region and rate cell.
- **HUB Contracting Requirements:** In the July 2017 Medicaid Managed Care Capitation Rate Amendment, we included care management amounts under the DKP in four regions to account for the Pathways Community HUB (HUB) contracting requirements. Care management to account for HUB contracting requirements is 2.5% of the delivery kick payment, consistent with the July 2017 rate amendment.

Fees and Taxes are loaded to the capitation rates after the application of non-benefit expenses. This includes the Health Insuring Corporation (HIC) Franchise Fee along with the HIC tax. The HIC Franchise Fee consists of a PMPM amount that varies based on an entity's Medicaid member months. The development of the actuarially sound capitation rates includes HIC Franchise Fee (collected by ODM) and HIC tax (collected by the Ohio Department of Insurance) components. HIC Franchise Fee amounts were developed by MCP based on projected Medicaid member months for January through June 2018, and then weighted based on regional enrollment by MCP. As the HIC Franchise Fee is assessed on a state fiscal year basis, we anticipate amending the CY 2018 capitation rates to reflect HIC Franchise Fee amounts applicable to July through December 2018. The HIC tax will remain at 1% of the total capitation rate.

iii. Health Insurance Providers Fee

(a) Whether the fee is incorporated in the rates

Consistent with ODM's payment of the Health Insurer Fee (HIF) in prior years, CY 2018 rates will be amended based on the calculated HIF attributable to ODM premium revenue. To the extent the actual paid HIF is less than the calculated HIF, the rates for the MCP will be amended based on actual paid HIF.

(b) Fee year or data year

The HIF for each insurer is calculated based on the data year. Amended CY 2018 rates will be based on the 2019 HIF attributable to the 2018 data year.

(c) Determination of fee impact to rates

The calculation of the fee for each MCP subject to the HIF will be based on the final Form 8963 premium amounts reported by the insurer, aggregate HIF premium base, final IRS invoices provided to the MCPs subject to the HIF, Form 8963 premium amounts attributable to ODM, data year HIF tax percentage, and adjustments for premium revenue based on benefits described in 26 CFR 57.2(h)(2)(ix) such as nursing home and home health care. Final fee amounts are adjusted for applicable fees and taxes that are applied to ODM capitation rate revenue (documented in the non-benefit expense section of this report).

(d) Timing of adjustment for health insurance providers fee

The 2018 capitation rates will be amended based on the 2019 HIF attributable to the 2018 data year. We anticipate amending the rates in the last quarter of CY 2019.

(e) Identification of long-term care benefits

An estimated percentage of each capitation rate cell that is attributable to long-term care services as described in 26 CFR 57.2(h)(2)(ix) will be estimated for the purposes of the HIF payment.

6. RISK ADJUSTMENT AND ACUITY ADJUSTMENTS

This section provides information on the risk adjustment included in the contract.

A. RATE DEVELOPMENT STANDARDS

i. Overview

In accordance with 42 CFR §438.5(g), we will follow the rate development standards related to budget-neutral risk adjustment for the MMC program. The composite rates for the CFC, ABD, Extension, and AFK populations will be prospectively risk adjusted by health plan on a regional basis to reflect estimated prospective morbidity differences in the underlying population enrolling with each MCP.

ii. Risk adjustment model

Risk adjustment will be performed using CDPS + Rx version 6.2. Risk adjustment will be performed on a budget neutral basis at the region and rate cell level. Newborns, one year olds, and delivery kick payments will be excluded from the risk adjustment process.

iii. Acuity adjustments

Acuity adjustments are not applicable to the CY 2018 capitation rates.

B. APPROPRIATE DOCUMENTATION

i. Prospective Risk Adjustment

(a) Data and adjustments

The January 1, 2018 through June 30, 2018 rate period will be risk adjusted based on a diagnosis and prescription drug collection period including incurred (dispensed) dates from January 1, 2016 through December 31, 2016, paid through June 30, 2017. The risk adjustment diagnosis base data will exclude diagnosis codes associated with diagnostic testing and certain medical supply codes.

The risk adjustment process will account for the variation in HIC Franchise Fee payments by MCP. Prospective risk scores will be applied to the CY 2018 capitation rates less the HIC Franchise Fee and tax amounts. We will then apply MCP-specific HIC Franchise Fee and tax amounts to the normalized rates on a budget neutral basis. For rate cells excluded from risk adjustment yet subject to the HIC Franchise fee, we will apply adjustments to account for variation in projected HIC Franchise Fee amounts by MCP. This includes the newborn and one-year-old rate cells.

(b) Risk adjustment model

Populations will be risk-adjusted using CDPS+Rx risk scoring models. We will provide full documentation of the results and methodology for the risk adjustment analysis in a separate correspondence.

(c) Risk Adjustment methodology

The risk adjustment is designed to be cost neutral for each population. Relative risk scores will be normalized to result in a composite risk score of 1.000 for each population group, across all MCPs. The risk adjustment methodology uses generally accepted actuarial principles and practices.

SECTION II. NEW ADULT GROUP CAPITATION RATES

ODM implemented the Affordable Care Act's Medicaid expansion on January 1, 2014. As of July 2017, approximately 630,000 individuals receive Medicaid benefits through MCPs under ODM's expansion population, known as the 'Extension' population.

1. DATA

A. Data Used in Certification

The source of data used to develop the Extension capitation rates for CY 2018 was identical to the source of data used in the development of rates for the ABD and CFC populations: encounter data submitted by the contracted MCPs.

B. 2016 Experience vs. Assumptions

ODM has monitored enrollment and costs in the Extension population on an on-going basis. Internal reports are shared with ODM personnel and its vendors, tracking eligibility changes by rate cell and county. Encounter and cost report data is used to track financial experience from the MCPs on a quarterly basis.

2. PROJECTED BENEFIT COSTS

A. Description of Projected Benefit Cost Issues

CY 2016 Extension population experience, in the form of adjusted encounter data, is used as the underlying data source for the development of the CY 2018 capitation rates. The 2017 rate setting process placed 75% credibility on cost report data expenditures, with 25% credibility on encounter data expenditures. The CY 2018 rate development process assumes full credibility of MCP encounter data, after applying data quality adjustments. In developing the adjusted base data for the CY 2018 capitation rates, rate cells were reassigned based on each member's rate cell as of July 1, 2017. For members included in the CY 2016 encounter data but not enrolled as of July 1, 2017, we reassigned member rate cells based on state data exchange (SDX) files for the state of Ohio. The SDX files contain information related to which MMC enrollees receive SSI. This process produced total benefit expense equal to the CY 2016 incurred encounter data, while reflecting post-1634 member rate cell assignment. Other data sources, assumptions, and methodologies are generally consistent with the CY 2017 certification and the July amendment to the CY 2017 certification.

Discussion of other assumption changes is provided in the next section.

B. Description of Key Assumption

Adjustments for pent-up demand – Consistent with the CY 2017 rate setting, it was assumed that the baseline experience data did not require these adjustments.

Adjustment for adverse selection – Consistent with the CY 2017 rate setting, it was assumed that the baseline experience data did not require these adjustments.

Adjustment for demographics of the new adult group – The current rate cell structure of the Extension population appropriately adjusts capitation payments to the MCPs to the extent the demographic mix of the Extension population changes significantly during the CY 2018 rate period.

Differences in provider reimbursement rates or provider networks – MCPs were required to report provider reimbursement relative to ODM's reimbursement schedule by population group (CFC, ABD <21, ABD 21+, and Extension) and major service category in the 2016 MCP Survey. Additionally, we received re-priced inpatient claims experience from ODM that allowed us to evaluate MCP inpatient hospital reimbursement relative to ODM's reimbursement schedule. We are not aware of any provider network differences between the Extension population and other Medicaid populations. Variations in assumptions by covered population were not based on the rate of Federal financial participation associated with the population.

C. Changes to Benefit Plan

No benefit changes have been made to the Extension benefit plan, other than items discussed in Section I, 2.

D. Other Material Changes or Adjustments to Benefit Costs

We did not make any other adjustments in the Extension rate development process other than those previously outlined in the report.

3. PROJECTED NON-BENEFIT COSTS

A. Changes in Data Sources, Assumptions, or Methodologies Since Last Certification

Cost report data, including non-benefit costs, was available for CY 2016. We used this information to evaluate the reasonableness of our non-benefit expense assumptions for the Extension population. As reported non-benefit expenses in the CY 2016 cost reports did not differ significantly between the CFC Adult and Extension populations, the non-benefit expense percentage loads have been set equal for the two populations in the development of the CY 2018 rates. This assumption is consistent with the prior certification.

B. Assumption Differences Relative to Other Medicaid Populations

As stated previously, non-benefit expense assumptions for the Extension population were set equal to the CFC Adult population.

4. FINAL CERTIFIED RATES OR RATE RANGES

A. Comparison to Previous Certification

On an aggregate basis, the July 2017 Extension rates are estimated to increase by 0.3%.

5. RISK MITIGATION STRATEGIES

A. Description of Risk Mitigation Strategy

ODM's provider agreement indicates that ODM will perform MLR calculations for the MMC program. This includes the ABD, CFC, AFK, and Extension populations. Effective January 1, 2018, there are no financial consequences associated with MLR requirements.

B. Changes to Risk Mitigation Strategy Relative to Prior Years

Based on information provided by ODM, CY 2015 MLR calculations resulted in two MCPs having MLR below 85%. These MCPs were required to return the difference between 85% of net capitation and actual allowed medical expenses incurred. The MLR calculation for CY 2016 will be performed in January 2018; however, no MLR rebates are anticipated for CY 2016. Effective January 1, 2018, there will be no MLR rebate requirements for the Extension program.

LIMITATIONS

The information contained in this report has been prepared for the Ohio Department of Medicaid (ODM) to provide documentation of the development of the calendar year 2018 actuarially sound capitation rates for the Medicaid Managed Care Program (MMC). The data and information presented may not be appropriate for any other purpose.

The information contained in this letter, including the enclosures, has been prepared for ODM and their consultants and advisors. It is our understanding that the information contained in this letter will be shared with CMS and may be utilized in a public document. Any distribution of the information should be in its entirety. Any user of the data must possess a certain level of expertise in actuarial science and healthcare modeling so as not to misinterpret the information presented.

Milliman makes no representations or warranties regarding the contents of this letter to third parties. Likewise, third parties are instructed that they are to place no reliance upon this letter prepared for ODM by Milliman that would result in the creation of any duty or liability under any theory of law by Milliman or its employees to third parties. Other parties receiving this letter must rely upon their own experts in drawing conclusions about the capitation rates, assumptions, and trends.

Milliman has relied upon certain data and information provided by ODM and the participating Medicaid MCPs in the development of the calendar year 2018 capitation rates. Milliman has relied upon ODM and the MCPs for the accuracy of the data and accept it without audit. To the extent that the data provided is not accurate, the capitation rate development would need to be modified to reflect revised information.

It should be emphasized that capitation rates are a projection of future costs based on a set of assumptions. Results will differ if actual experience is different from the assumptions contained in this report.

The services provided by Milliman to ODM were performed under the signed contract agreement between Milliman and ODM dated June 11, 2015.

Guidelines issued by the American Academy of Actuaries require actuaries to include their professional qualifications in all actuarial communications. The authors of this report are members of the American Academy of Actuaries and meet the qualification standards for performing the analyses contained herein.

APPENDIX 1: 2018 RATE CHANGE SUMMARIES

Ohio Department of Medicaid
Medicaid Managed Care Program
Capitation Rates Effective January 1, 2018
Calendar Year 2018 Rate Change Summary

Region: North Central

	Member Months /	July 2017	Calendar Year 2018	
Rate Cell	Deliveries	Capitation Rate	Capitation Rate	% Change
CFC				
HF/HST <1 M+F	57,972	\$ 760.51	\$ 833.97	9.66%
HF/HST 1 M+F	55,860	169.33	165.62	(2.19%)
HF/HST 2-13 M+F	578,674	147.96	133.99	(9.44%)
HF/HST 14-18 M	90,528	192.25	177.01	(7.93%)
HF/HST 14-18 F	91,944	228.21	232.28	1.78%
HF 19-44 M	78,179	283.03	275.14	(2.79%)
HF 19-44 F	254,711	387.59	390.07	0.64%
HF 45+ M+F	40,176	591.01	607.61	2.81%
HST 19-64 F	30,756	453.50	435.80	(3.90%)
Subtotal - CFC	1,278,799	\$ 262.82	\$ 258.99	(1.46%)
Extension				
EXT 19-34 M	118,654	\$ 323.62	\$ 309.55	(4.41%)
EXT 19-34 F	105,019	363.63	353.73	(2.72%)
EXT 35-44 M	56,738	544.12	492.04	(9.57%)
EXT 35-44 F	45,756	584.09	581.19	(0.50%)
EXT 45-54 M	53,280	741.87	710.82	(4.19%)
EXT 45-54 F	55,260	804.61	775.27	(3.65%)
EXT 55-64 M	40,008	888.17	881.49	(0.75%)
EXT 55-64 F	44,172	824.77	863.73	4.72%
Subtotal - Extension	518,884	\$ 559.20	\$ 544.48	(2.63%)
ABD				
ABD <21	45,449	\$ 708.54	\$ 716.26	1.09%
ABD 21+	122,715	1,503.21	1,614.35	7.39%
Subtotal - ABD	168,164	\$ 1,288.44	\$ 1,371.63	6.46%
AFK	30,360	\$ 383.32	\$ 332.52	(13.25%)
CFC & EXT Delivery	3,546	\$ 5,808.28	\$ 5,626.99	(3.12%)
Total	1,996,207	\$ 438.41	\$ 438.04	(0.08%)

Ohio Department of Medicaid
Medicaid Managed Care Program
Capitation Rates Effective January 1, 2018
Calendar Year 2018 Rate Change Summary

Region: Northwest

Region: Northwest	Member Months /	July 2017	Calendar Year 2018	
Rate Cell	Deliveries	Capitation Rate	Capitation Rate	% Change
CFC				
HF/HST <1 M+F	41,412	\$ 734.43	\$ 821.10	11.80%
HF/HST 1 M+F	35,664	154.09	153.33	(0.49%)
HF/HST 2-13 M+F	384,364	148.03	133.28	(9.96%)
HF/HST 14-18 M	61,318	230.68	190.99	(17.21%)
HF/HST 14-18 F	63,936	211.51	210.95	(0.26%)
HF 19-44 M	45,590	277.99	277.11	(0.32%)
HF 19-44 F	139,631	375.29	385.41	2.70%
HF 45+ M+F	20,628	601.49	618.02	2.75%
HST 19-64 F	23,304	425.33	416.14	(2.39%)
Subtotal - CFC	815,846	\$ 254.82	\$ 251.02	(1.49%)
Extension				
EXT 19-34 M	53,979	\$ 308.77	\$ 318.00	2.99%
EXT 19-34 F	55,596	363.29	351.63	(3.21%)
EXT 35-44 M	27,651	523.52	524.38	0.16%
EXT 35-44 F	28,056	648.84	612.74	(5.56%)
EXT 45-54 M	26,304	777.70	813.11	4.55%
EXT 45-54 F	31,296	824.07	856.00	3.87%
EXT 55-64 M	21,064	817.07	891.03	9.05%
EXT 55-64 F	26,167	838.40	852.34	1.66%
Subtotal - Extension	270,133	\$ 573.63	\$ 583.68	1.75%
ABD				
ABD <21	18,916	\$ 650.72	\$ 752.20	15.60%
ABD 21+	51,777	1,362.83	1,429.60	4.90%
Subtotal - ABD	70,693	\$ 1,172.28	\$ 1,248.34	6.49%
AFK	12,564	\$ 386.96	\$ 352.66	(8.86%)
CFC & EXT Delivery	2,269	\$ 5,373.23	\$ 4,839.31	(9.94%)
Total	1,169,237	\$ 395.79	\$ 398.66	0.72%

Ohio Department of Medicaid
Medicaid Managed Care Program
Capitation Rates Effective January 1, 2018
Calendar Year 2018 Rate Change Summary

Region: Southwest

Rate Cell	Member Months / Deliveries	July 2017 Capitation Rate	Calendar Year 2018 Capitation Rate	% Change
CFC				
HF/HST <1 M+F	218,148	\$ 912.79	\$ 926.97	1.55%
HF/HST 1 M+F	205,319	203.45	196.31	(3.51%)
HF/HST 2-13 M+F	2,200,069	161.66	151.84	(6.07%)
HF/HST 14-18 M	344,157	212.59	207.03	(2.62%)
HF/HST 14-18 F	355,413	248.35	249.20	0.34%
HF 19-44 M	269,230	251.21	262.89	4.65%
HF 19-44 F	867,179	353.86	370.26	4.63%
HF 45+ M+F	148,462	552.38	605.75	9.66%
HST 19-64 F	122,651	364.18	385.45	5.84%
Subtotal - CFC	4,730,629	\$ 266.17	\$ 267.51	0.50%
Extension				
EXT 19-34 M	410,531	\$ 314.84	\$ 305.51	(2.96%)
EXT 19-34 F	359,284	361.39	358.32	(0.85%)
EXT 35-44 M	211,908	494.04	483.15	(2.20%)
EXT 35-44 F	171,252	619.01	581.46	(6.07%)
EXT 45-54 M	200,663	716.53	712.31	(0.59%)
EXT 45-54 F	202,763	769.27	784.85	2.03%
EXT 55-64 M	147,335	838.05	850.15	1.44%
EXT 55-64 F	170,831	850.55	819.99	(3.59%)
Subtotal - Extension	1,874,568	\$ 553.90	\$ 546.01	(1.43%)
ABD				
ABD <21	137,756	\$ 1,063.64	\$ 1,100.74	3.49%
ABD 21+	369,015	1,438.83	1,498.08	4.12%
Subtotal - ABD	506,772	\$ 1,336.84	\$ 1,390.07	3.98%
AFK	117,264	\$ 406.07	\$ 348.25	(14.24%)
CFC & EXT Delivery	12,542	\$ 4,971.70	\$ 5,275.84	6.12%
Total	7,229,232	\$ 426.73	\$ 428.88	0.50%

Ohio Department of Medicaid
Medicaid Managed Care Program
Capitation Rates Effective January 1, 2018
Calendar Year 2018 Rate Change Summary

Region: South Central

Rate Cell	Member Months / Deliveries	July 2017 Capitation Rate	Calendar Year 2018 Capitation Rate	% Change
CFC				
HF/HST <1 M+F	190,548	\$ 1,139.78	\$ 1,128.61	(0.98%)
HF/HST 1 M+F	183,264	220.22	241.68	9.74%
HF/HST 2-13 M+F	1,861,801	169.42	154.91	(8.56%)
HF/HST 14-18 M	290,065	197.29	180.97	(8.27%)
HF/HST 14-18 F	293,594	242.48	228.70	(5.68%)
HF 19-44 M	258,978	267.67	271.47	1.42%
HF 19-44 F	697,698	383.36	408.98	6.68%
HF 45+ M+F	139,664	558.52	586.28	4.97%
HST 19-64 F	100,596	384.76	422.20	9.73%
Subtotal - CFC	4,016,208	\$ 287.56	\$ 285.69	(0.65%)
Extension				
EXT 19-34 M	309,614	\$ 333.40	\$ 366.77	10.01%
EXT 19-34 F	283,940	382.06	384.74	0.70%
EXT 35-44 M	152,832	558.03	549.88	(1.46%)
EXT 35-44 F	134,496	617.61	610.05	(1.22%)
EXT 45-54 M	142,871	786.65	815.88	3.72%
EXT 45-54 F	154,319	783.41	802.66	2.45%
EXT 55-64 M	103,187	900.00	952.45	5.83%
EXT 55-64 F	122,951	829.74	874.76	5.43%
Subtotal - Extension	1,404,210	\$ 575.58	\$ 594.75	3.33%
ABD				
ABD <21	106,262	\$ 1,237.29	\$ 1,198.36	(3.15%)
ABD 21+	354,879	1,382.19	1,485.12	7.45%
Subtotal - ABD	461,141	\$ 1,348.80	\$ 1,419.04	5.21%
AFK	86,113	\$ 370.72	\$ 316.96	(14.50%)
CFC & EXT Delivery	11,034	\$ 4,543.92	\$ 4,737.94	4.27%
Total	5,967,672	\$ 446.94	\$ 455.20	1.85%

Ohio Department of Medicaid
Medicaid Managed Care Program
Capitation Rates Effective January 1, 2018
Calendar Year 2018 Rate Change Summary

Region: Southeast

	Member Months /	July 2017	Calendar Year 2018	
Rate Cell	Deliveries	Capitation Rate	Capitation Rate	% Change
CFC				
HF/HST <1 M+F	60,996	\$ 912.39	\$ 1,041.31	14.13%
HF/HST 1 M+F	57,924	208.18	177.88	(14.58%)
HF/HST 2-13 M+F	632,957	188.37	145.24	(13.74%)
HF/HST 14-18 M	111,196	213.39	189.94	(10.99%)
HF/HST 14-18 F	110,316	243.65	233.94	(3.99%)
HF 19-44 M	108,012	277.62	283.12	1.98%
HF 19-44 F	264,191	377.23	376.88	(0.09%)
HF 45+ M+F	47,472	550.65	569.57	3.44%
HST 19-64 F	36,048	484.24	462.88	(4.41%)
Subtotal - CFC	1,429,112	\$ 278.59	\$ 270.48	(2.91%)
Extension				
EXT 19-34 M	124,527	\$ 292.16	\$ 312.17	6.85%
EXT 19-34 F	109,932	384.89	360.17	(1.24%)
EXT 35-44 M	60,459	537.38	501.37	(6.70%)
EXT 35-44 F	52,140	566.30	553.85	(2.20%)
EXT 45-54 M	59,268	675.71	718.55	6.34%
EXT 45-54 F	68,319	731.29	761.01	4.08%
EXT 55-64 M	47,640	784.24	817.41	4.23%
EXT 55-64 F	54,996	793.53	844.49	6.42%
Subtotal - Extension	577,281	\$ 536.13	\$ 550.20	2.62%
ABD				
ABD <21	35,749	\$ 1,040.69	\$ 966.15	(7.16%)
ABD 21+	136,344	1,282.59	1,313.06	2.36%
Subtotal - ABD	172,094	\$ 1,232.34	\$ 1,241.00	0.70%
AFK	34,090	\$ 343.65	\$ 299.84	(12.75%)
CFC & EXT Delivery	3,749	\$ 4,218.61	\$ 4,313.08	2.24%
Total	2,212,578	\$ 428.12	\$ 426.71	(0.33%)

Ohio Department of Medicaid
Medicaid Managed Care Program
Capitation Rates Effective January 1, 2018
Calendar Year 2018 Rate Change Summary

Region: Northeast

	Member Months /	July 2017	Calendar Year 2018	
Rate Cell	Deliveries	Capitation Rate	Capitation Rate	% Change
CFC				
HF/HST <1 M+F	250,476	\$ 1,016.10	\$ 1,127.97	11.01%
HF/HST 1 M+F	235,662	217.53	219.14	0.74%
HF/HST 2-13 M+F	2,510,274	162.51	164.64	1.40%
HF/HST 14-18 M	427,339	189.50	191.41	1.01%
HF/HST 14-18 F	439,258	219.46	225.38	2.70%
HF 19-44 M	338,926	242.73	252.81	4.15%
HF 19-44 F	1,108,857	351.90	366.95	4.28%
HF 45+ M+F	205,546	530.27	571.87	7.85%
HST 19-64 F	122,760	415.22	482.21	16.13%
Subtotal - CFC	5,639,097	\$ 265.72	\$ 278.85	4.94%
Extension				
EXT 19-34 M	559,569	\$ 297.86	\$ 301.37	1.18%
EXT 19-34 F	486,441	352.99	345.06	(2.25%)
EXT 35-44 M	271,537	459.39	454.16	(1.14%)
EXT 35-44 F	215,127	544.00	538.61	(0.99%)
EXT 45-54 M	272,963	696.72	688.14	(1.23%)
EXT 45-54 F	279,675	718.70	725.52	0.95%
EXT 55-64 M	226,800	834.65	818.55	(1.93%)
EXT 55-64 F	255,878	786.80	782.47	2.04%
Subtotal - Extension	2,567,989	\$ 528.37	\$ 526.59	(0.34%)
ABD				
ABD <21	203,702	\$ 751.54	\$ 856.47	13.98%
ABD 21+	574,514	1,419.71	1,487.60	4.78%
Subtotal - ABD	778,216	\$ 1,244.81	\$ 1,322.40	6.23%
AFK	110,774	\$ 392.92	\$ 313.34	(20.25%)
CFC & EXT Delivery	15,359	\$ 4,852.69	\$ 5,039.55	3.85%
Total	9,096,076	\$ 433.38	\$ 447.01	3.14%

**Ohio Department of Medicaid
Medicaid Managed Care Program
Capitation Rates Effective January 1, 2018
Calendar Year 2018 Rate Change Summary**

Region: Northeast Central

Region: Northeast Central	Member Months /	July 2017	Calendar Year 2018	
Rate Cell	Deliveries	Capitation Rate	Capitation Rate	% Change
CFC				
HF/HST <1 M+F	62,316	\$ 761.52	\$ 878.07	15.30%
HF/HST 1 M+F	57,753	191.65	159.45	(16.80%)
HF/HST 2-13 M+F	614,683	149.31	142.76	(4.39%)
HF/HST 14-18 M	99,799	211.01	185.43	(12.12%)
HF/HST 14-18 F	103,464	220.22	229.10	4.03%
HF 19-44 M	80,950	226.17	257.86	14.01%
HF 19-44 F	248,606	340.73	361.60	6.13%
HF 45+ M+F	40,680	537.54	507.88	(5.52%)
HST 19-64 F	36,156	423.96	425.58	0.38%
Subtotal - CFC	1,344,407	\$ 248.70	\$ 253.42	1.90%
Extension				
EXT 19-34 M	105,968	\$ 282.55	\$ 271.99	(3.74%)
EXT 19-34 F	97,988	329.75	346.41	5.05%
EXT 35-44 M	52,856	414.66	440.45	6.22%
EXT 35-44 F	49,188	549.56	541.67	(1.44%)
EXT 45-54 M	52,068	647.29	639.14	(1.26%)
EXT 45-54 F	59,460	679.99	721.43	6.09%
EXT 55-64 M	43,356	810.76	798.19	(1.55%)
EXT 55-64 F	50,496	759.76	762.72	0.39%
Subtotal - Extension	511,180	\$ 506.22	\$ 512.34	1.21%
ABD				
ABD <21	37,421	\$ 832.16	\$ 925.64	11.23%
ABD 21+	100,685	1,291.39	1,357.31	5.10%
Subtotal - ABD	138,106	\$ 1,166.96	\$ 1,240.35	6.29%
AFK	28,149	\$ 370.08	\$ 342.82	(7.37%)
CFC & EXT Delivery	3,763	\$ 4,508.93	\$ 4,357.97	(3.35%)
Total	2,021,842	\$ 386.62	\$ 395.65	2.34%

**Ohio Department of Medicaid
Medicaid Managed Care Program
Capitation Rates Effective January 1, 2018
Calendar Year 2018 Rate Change Summary**

Region: Statewide

Region: Statewide	Member Months /	July 2017	Calendar Year 2018	
Rate Cell	Deliveries	Capitation Rate	Capitation Rate	% Change
CFC				
HF/HST <1 M+F	861,868	\$ 962.08	\$ 1,021.00	6.12%
HF/HST 1 M+F	831,447	206.24	205.03	(0.59%)
HF/HST 2-13 M+F	8,782,823	158.81	150.19	(5.43%)
HF/HST 14-18 M	1,424,401	201.88	191.59	(5.14%)
HF/HST 14-18 F	1,457,923	233.23	232.57	(0.28%)
HF 19-44 M	1,179,884	256.23	264.75	3.33%
HF 19-44 F	3,580,874	353.05	378.67	4.30%
HF 45+ M+F	642,628	549.57	582.32	5.96%
HST 19-64 F	472,270	404.46	432.20	6.86%
Subtotal - CFC	19,254,098	\$ 269.50	\$ 272.60	1.15%
Extension				
EXT 19-34 M	1,682,842	\$ 309.34	\$ 314.47	1.66%
EXT 19-34 F	1,498,200	360.96	357.81	(0.88%)
EXT 35-44 M	833,778	497.00	486.54	(2.10%)
EXT 35-44 F	686,014	585.61	570.11	(2.65%)
EXT 45-54 M	807,417	718.44	721.39	0.41%
EXT 45-54 F	851,093	750.24	764.23	1.86%
EXT 55-64 M	629,410	843.51	852.84	1.11%
EXT 55-64 F	725,491	804.84	817.74	1.60%
Subtotal - Extension	7,724,245	\$ 545.92	\$ 547.72	0.33%
ABD				
ABD <21	585,256	\$ 929.42	\$ 972.91	4.68%
ABD 21+	1,709,930	1,401.83	1,475.10	5.23%
Subtotal - ABD	2,295,186	\$ 1,281.37	\$ 1,347.05	5.13%
AFK	419,315	\$ 385.63	\$ 327.29	(15.13%)
CFC & EXT Delivery	52,262	\$ 4,833.26	\$ 4,962.55	2.68%
Total	29,692,843	\$ 429.77	\$ 436.72	1.62%



Risk Adjustment Factors for January through June 2018 Managed Care Capitation Rates

State of South Carolina

Department of Health and Human Services

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Table of Contents

BACKGROUND	1
SUMMARY OF RESULTS	1
OVERVIEW OF RISK SCORING METHODOLOGY	3
Step 1: Data collection	4
Step 2: Application of CDPS+Rx Model	5
Step 3: Credibility-Adjusted Raw Risk Score	5
Step 4: Relative Age/Gender Factor Calculation	6
Step 5: Age/Gender Adjusted Risk Score	6
Step 6: Final Normalized Risk Score	6
Step 7: Application to Certified Capitation Rates	6
RISK ADJUSTMENT PREVALENCE REPORTS	7
DATA RELIANCE, LIMITATIONS AND QUALIFICATIONS	7
Enclosure 1: Risk Factor Development	

BACKGROUND

Milliman, Inc. (Milliman) was retained by the South Carolina Department of Health and Human Services (SCDHHS) to assist in the managed care rate setting process including risk adjustment analysis. This report documents our analysis related to the development of risk adjustment factors by managed care organization (MCO) for the MCO capitation rate period effective January 1, 2018 through June 30, 2018. **This correspondence is intended for distribution to CMS and summarizes the risk adjustment results for all MCOs into one letter. The results provided in this report are consistent with the MCO-specific analyses submitted in the "Risk Adjustment Factors for January through June 2018 Managed Care Capitation Rates" reports dated December 5, 2017.**

SUMMARY OF RESULTS

SCDHHS currently contracts with MCOs for specified eligible Adult, Children, SSI Adult, and SSI Children members. This report documents the relative risk scores developed for the specified populations using the Combined Chronic Illness and Pharmacy Payment System risk adjustment model (CDPS+Rx). The relative risk scores presented in this report are effective for the January through June 2018 rate period. The risk adjustment analysis is estimated to be budget-neutral to the composite capitation rates effective for this period, thus the risk adjustment factors by health plan will composite to 1.000 across all MCOs for each of the populations included in the analysis.

We used the CDPS+Rx model, Version 6.2, for the determination of risk adjustment factors used in this analysis. CDPS+Rx is a diagnostic and pharmacy-based risk adjustment system developed by the researchers at the University of California, San Diego (UCSD). To adjust for all maternity-related services that are covered under the maternity kick payment, we applied a weight of 0.00 to pregnancy and incomplete pregnancy diagnostic categories in the CDPS+Rx model. We used the prospective acute disease weights from the CDPS+Rx risk adjustment model to develop the risk adjustment factors presented in this report.

Table 1 illustrates a comparison of the final risk scores for each MCO for the July through December 2017 time period to the new risk-adjusted rate period (January through June 2018). Consistent with the prior analysis, the foster care children population has been excluded from the risk adjustment analysis because a separate rate cell exists for this population and nearly 100% are enrolled in a single MCO.

Table 1 South Carolina Department of Health and Human Services January through June 2018 Managed Care Organization Risk Adjustment Risk Adjustment Factors by Population - Comparison to Previous		
MCO	Previous Factor (July 2017 through December 2017)	New Factor (January 2018 through June 2018)
SSI - Adult		
F	1	1

Note: Values have been rounded

Table 1 (Continued) South Carolina Department of Health and Human Services January through June 2018 Managed Care Organization Risk Adjustment Risk Adjustment Factors by Population - Comparison to Previous		
MCO	Previous Factor	New Factor
SSI - Children (Excluding Infants)		
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]

Note: Values have been rounded

MCO	Previous Factor	New Factor
TANF Adult		
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]

Note: Values have been rounded

MCO	Previous Factor	New Factor
TANF - Children (Excluding Infants)		
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]

Note: Values have been rounded

The remainder of this report documents the analysis that was performed to develop the results presented in Table 1.

OVERVIEW OF RISK SCORING METHODOLOGY

To account for the variation in population risk between MCOs, we used a diagnosis and pharmacy based risk adjustment model developed by the researchers at University of California, San Diego (UCSD), CDPS+Rx, to evaluate the morbidity differences between the TANF Adult, TANF Children, SSI Adult, and SSI Children beneficiaries covered by each MCO.

To avoid double counting the effect of age and gender on the risk adjustment results, we also estimated the age/gender mix differences on the TANF Adult and Children populations between plans based on the distribution of covered members by rate cell. The age/gender normalization adjustment removes the impact of the age/gender curve already included in the capitation rate cells from the risk adjustment factors, resulting in adjusted risk scores that are not influenced by differences in the distribution of rate cell enrollment between MCOs.

The remainder of the methodology section describes the above process in greater detail, describing the process in the 7 steps outlined in the figure below.



STEP 1: DATA COLLECTION

Table 2 summarizes the collection process for the TANF Adult, TANF Children, SSI Adult, and SSI Children population data that were utilized in the January through June 2018 risk adjustment analysis.

Table 2 South Carolina Department of Health & Human Services January through June 2018 Managed Care Organization Risk Adjustment Data Collection Parameters	
Parameter	Description
Data Sources	Managed care encounter and fee-for-service claims, Medicaid eligibility
Service dates	January 1, 2016 through December 31, 2016
Data runout period	Paid and submitted into the data warehouse through October 2017.
Managed care eligibility period used to assign beneficiaries	October 2017
Managed care eligibility exclusions	OCWI Pregnant women, Infants*, aged individuals**, and foster care children
Minimum Medicaid eligibility months	Six months Medicaid eligibility
Beneficiary age calculation	Age as of July 1, 2016
Diagnosis codes excluded	Lab and radiology services on physician and outpatient hospital claims; FFS physician claims limited to 4 diagnosis codes
Data exclusions	Claims that do not meet in-rate criteria requirements

**Infants who would attain age 1 by October 1, 2017 were included in the analysis*

***Adults over age 64 as of October 1, 2017 were excluded from the analysis*

Data sources: Diagnostic and pharmacy data were collected from encounter records and from fee-for-service claims provided by SCDHHS. Monthly member-level eligibility data was also provided by SCDHHS.

Service dates: The risk adjustment process incorporated diagnostic and national drug code (NDC) data with service dates from January 1, 2016 through December 31, 2016.

Data runout period: Diagnostic and NDC data with a permissible service date were limited to claims that were paid through October 31, 2017 and submitted into the data warehouse through October 2017.

Managed care eligibility period used to assign beneficiaries: Beneficiaries were assigned to a MCO and rate cell based on their October 2017 managed care enrollment.

Managed care eligibility exclusions: OCWI Pregnant women identified with payment category 87 as of October 2017 and foster care children identified with RSP "FOST" were excluded from risk scoring. Additionally, all individuals under age 1 as of October 1, 2017 were excluded from the children population for risk adjustment development, and all adults over age 64 as of October 1, 2017 were excluded from the adult population.

Minimum Medicaid eligibility months: In order to be included in the CDPS+Rx model, beneficiaries enrolled in the managed care program at October 2017 were required to have at least six months of Medicaid eligibility during the January 1, 2016 through December 31, 2016 base period. To meet this requirement, the sum of Medicaid eligibility months must be six or greater during the base period. Eligibility months were not required to be continuous.

Beneficiary age calculation: The beneficiary's age for the purposes of demographic assignment was calculated as of July 1, 2016, the midpoint of the risk adjustment base period.

Diagnosis codes excluded: Diagnosis codes from claims that included a lab/radiology procedure or revenue code on any line, with the exception of those associated with an inpatient hospital claim, were not collected for the purposes of the risk adjustment analysis. It was assumed that these diagnosis codes could be for testing purposes and may not definitively indicate a beneficiary's disease condition.

Diagnosis codes from fee-for-service and encounter claims are at the header level (i.e. the diagnosis codes are the same for every line within the claim). As a result, we have excluded diagnoses from the entire claim rather than at the line level of a claim. Any lab/radiology claim identified resulted in the entire claim being removed from the risk adjustment analysis.

To ensure consistency between plans and delivery systems, diagnosis codes on FFS physician claims were limited to 4 diagnosis codes. No adjustments were made to FFS facility claims.

Data exclusions: We excluded all services included in the claims data that do not reflect covered benefits in the managed care program. These services were identified through the application of the SFY 2018 in-rate criteria provided by SCDHHS and documented in the 'State Fiscal Year 2018 Medicaid Managed Care Capitation Rate Certification' report, dated June 8, 2017.

STEP 2: APPLICATION OF CDPS+RX MODEL

We developed the risk scores using the CDPS+Rx risk adjustment model, Version 6.2. We utilized the prospective disease weights in the risk adjustment model. Additionally, we utilized separate CDPS+Rx weights developed for the disabled, TANF adult, and TANF children populations. The total risk score for a member was calculated by summing the respective weights associated with the demographic, diagnostic, and pharmaceutical categories flagged by the model.

The Society of Actuaries published a study in October 2016 entitled 'Accuracy of Claims-Based Risk Scoring Models'. This study presented results comparing the accuracy of several risk scoring models, including the CDPS+Rx model developed by the University of California San Diego. The study focused on R-squared and Mean Absolute Error (MAE) statistics to assess the predictive value of explaining individual-level health expenditure risk for each risk scoring model. R-squared results ranged from approximately 9.0% to 25.0% across several risk scoring models. The results of the study illustrated an R-squared value of 10.0% for the CDPS+Rx model¹.

STEP 3: CREDIBILITY-ADJUSTED RAW RISK SCORE

After applying the CDPS+Rx risk adjustment model to the collected eligibility and pharmacy data, the risk score information was summarized by MCO and TANF Adult, TANF Children, SSI Adult, and SSI Children populations. Table 3 lists the key assumptions and methodologies utilized in summarizing and credibility-adjusting the risk adjustment model results.

Table 3 South Carolina Department of Health & Human Services January through July 2018 Managed Care Organization Risk Adjustment Summarization of CDPS+Rx Output	
Parameter	Description
Risk adjustment populations	TANF Child, TANF Adult, SSI Child, SSI Adult
Scored recipient weighting	Each scored recipient received equal weighting, regardless of qualifying eligibility length in data collection period.
Risk score for unscored member	Average risk score for respective MCO and risk adjustment population.
Credibility adjustment	Risk adjustment population, MCO cohorts with 500 or more recipients were given full credibility. All cohorts met this threshold.

Risk adjustment populations: Separate risk adjustment analyses were maintained for the TANF Adult, TANF Children, SSI Adult, and SSI Children populations.

Scored recipient weighting: A composite unadjusted risk score was calculated for each MCO within the four risk adjustment populations. The composite risk score within each population reflects the average risk score of beneficiaries

¹ Geoff Hileman, FSA, MAAA, and Spenser Steele, *Accuracy of Claims-Based Risk Scoring Models* (Society of Actuaries, October 2016), Table 4.2.2-19.

meeting the minimum eligibility standard during the data collection period. Each scored beneficiary receives equal weighting in the calculation of the composite risk score.

Credibility adjustment: To mitigate potential variability in risk score results for MCO rate cell cohorts with relatively few covered beneficiaries, a credibility adjustment is made to MCO population cohorts with fewer than 500 scored recipients. In this analysis, all cohorts exceeded the 500 scored recipient threshold.

STEP 4: RELATIVE AGE/GENDER FACTOR CALCULATION

To remove the effect of age and gender from the raw risk scores, we developed an age/gender factor for each MCO and risk population. This factor was calculated by weighting an individual MCO's October 2017 eligibility by rate cell with the certified rate cell capitation rates for fiscal year 2018. The ratio between the MCO's composite rate and the aggregate composite rate for all five MCOs reflects the age/gender factor for the MCO.

For example, an age/gender factor of 0.98 indicates the per member per month capitation revenue for the MCO's beneficiaries is 2% less than the composite across all MCOs, due to the mix of the MCO's members by TANF Adult and TANF Children rate cells relative to the average. The composite age/gender factor for each risk pool was estimated to be 1.00 based on October 2017 enrollment. An age/gender factor adjustment was not applied to SSI Adult and SSI Children because the rate cell and risk adjustment population are the same.

STEP 5: AGE/GENDER ADJUSTED RISK SCORE

Using results from steps 3 and 4, an age/gender adjusted risk score was developed for each MCO. The factor by MCO was calculated using the following formula:

$$\text{Age Gender Adjusted Risk Score} = \frac{\text{Credibility Adjusted Raw Risk Score}}{\text{Relative Age Gender Factor}}$$

STEP 6: FINAL NORMALIZED RISK SCORE

Relative risk scores were calculated for each of the five MCOs across the four risk populations. This process converted the age/gender-adjusted risk scores into a factor indicating the relative morbidity of the MCO's beneficiaries relative to the composite morbidity for all MCOs. For example, a relative risk score of 0.95 indicates the estimated morbidity of the MCO's beneficiaries is 5% less than the composite across all MCOs. The composite relative risk scores for each risk population was normalized to 1.00 based on October 2017 enrollment.

STEP 7: APPLICATION TO CERTIFIED CAPITATION RATES

The capitation rates will be determined by rate cell based upon the following formula:

$$\text{MCO Capitation Rate} = \text{Base Certified Capitation Rate} \times \text{MCO Adjusted Risk Factor}$$

Enclosure 1 provides the development of the risk adjustment factors for each of the MCOs from the raw risk scores to the final normalized risk scores, including the application of the credibility adjustment and age/gender normalization.

Each column of Enclosure 1 is defined further below with reference, where applicable, to the specific step outlined in the report that includes the documentation of the calculation.

October 2017 MCO Eligibles – With Risk Scores: The number of MCO-enrolled beneficiaries as of October 2017 with at least six months of Medicaid eligibility during the January 2016 through December 2016 base period (represents "scored" members).

October 2017 MCO Eligibles – Total: The number of MCO-enrolled beneficiaries as of October 2017 (represents both "scored" and "unscored" members)

Raw Risk Score: The risk score developed using the CDPS+Rx risk adjustment model, Version 6.2, as outlined in Step 2 of this report. The MCO-specific values are also further detailed in the prevalence reports included in Enclosure 2.

Credibility Adjusted Raw Risk Score (Column A): MCO cohorts with 500 or more scored recipients were given full credibility, as outlined in Step 3.

Relative Age/Gender Factor (Column B): An age/gender factor for the TANF populations for each MCO was developed based on the certified rate cell capitation rates for fiscal year 2018, as documented in Step 4 of this report.

Age/Gender Adjusted Risk Score: Column A divided by Column B, as documented in Step 5 of this report.

Final Normalized Risk Score: The relative risk score is calculated by converting the age/gender adjusted risk score into a factor indicating the relative morbidity of the MCO's beneficiaries relative to the composite morbidity for all MCOs. This is documented in Step 6 of the report.

RISK ADJUSTMENT PREVALENCE REPORTS

Enclosure 2 illustrates the prevalence reports for the applicable MCO by disease category as defined by CDPS+Rx, and relate to the development of risk adjustment factors by MCO for the January through June 2018 capitation rate period. Each enclosure is health plan specific and contains a separate prevalence report for the SSI Adult, SSI Children, TANF Adult, and TANF Children populations. The scores included in the prevalence reports are represented in Enclosure 1 as Raw Risk Scores. **The prevalence reports included as Enclosure 2 in the "Risk Adjustment Factors for January through June 2018 Managed Care Capitation Rates" reports dated December 5, 2017 have been excluded from this correspondence. Please see the December 5, 2017 reports for all MCO-specific prevalence report summaries.**

DATA RELIANCE, LIMITATIONS AND QUALIFICATIONS

The information contained in this letter has been prepared for SCDHHS to provide documentation of the development of the risk adjustment factors for the January through June 2018 managed care capitation rates. The data and information presented may not be appropriate for any other purpose.

The information contained in this report, including the enclosures, has been prepared for SCDHHS and their consultants and advisors. It is our understanding that the information contained in this report will be shared with CMS and may be utilized in a public document. Any distribution of the information should be in its entirety. Any user of the data must possess a certain level of expertise in actuarial science and healthcare modeling so as not to misinterpret the information presented.

Milliman has relied upon certain data and information provided by SCDHHS and the participating Medicaid MCOs in the development of the January through June 2018 risk adjustment factors. Milliman has relied upon SCDHHS and the MCOs for the accuracy of the data and accept it without audit. To the extent that the data provided is not accurate, the risk factor development would need to be modified to reflect revised information.

It should be emphasized that risk adjustment factors are a measure of future costs based on a set of assumptions. Results will differ if actual experience is different from the assumptions contained in this report.

The services provided for this project were performed under the signed Consulting Services Agreement between Milliman and SCDHHS approved July 1, 2017.

Guidelines issued by the American Academy of Actuaries require actuaries to include their professional qualifications in all actuarial communications. The authors of this report are members of the American Academy of Actuaries, and meet the qualification standards for performing the analyses in this report.

Milliman Medicaid Consulting Group - Key Staff

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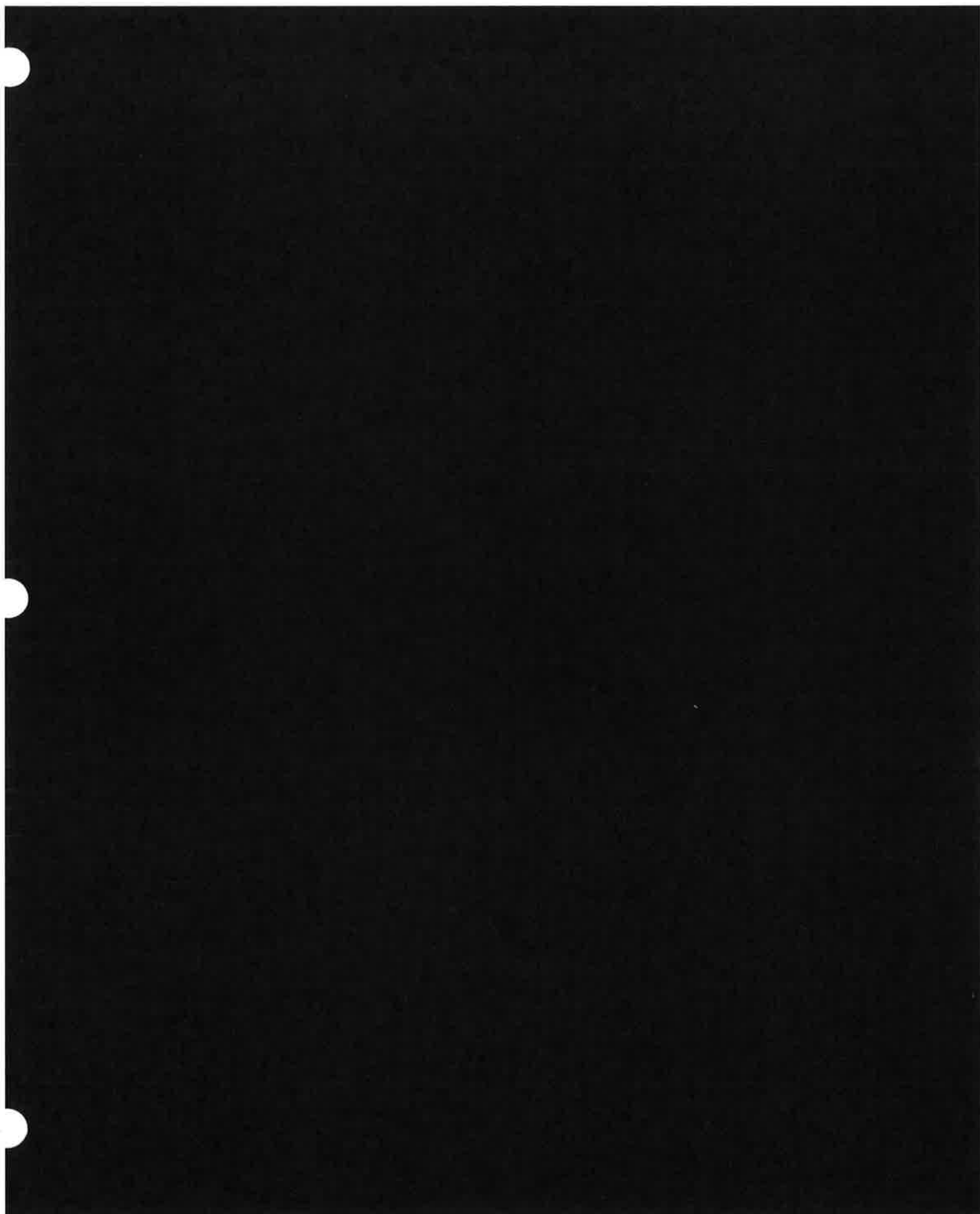
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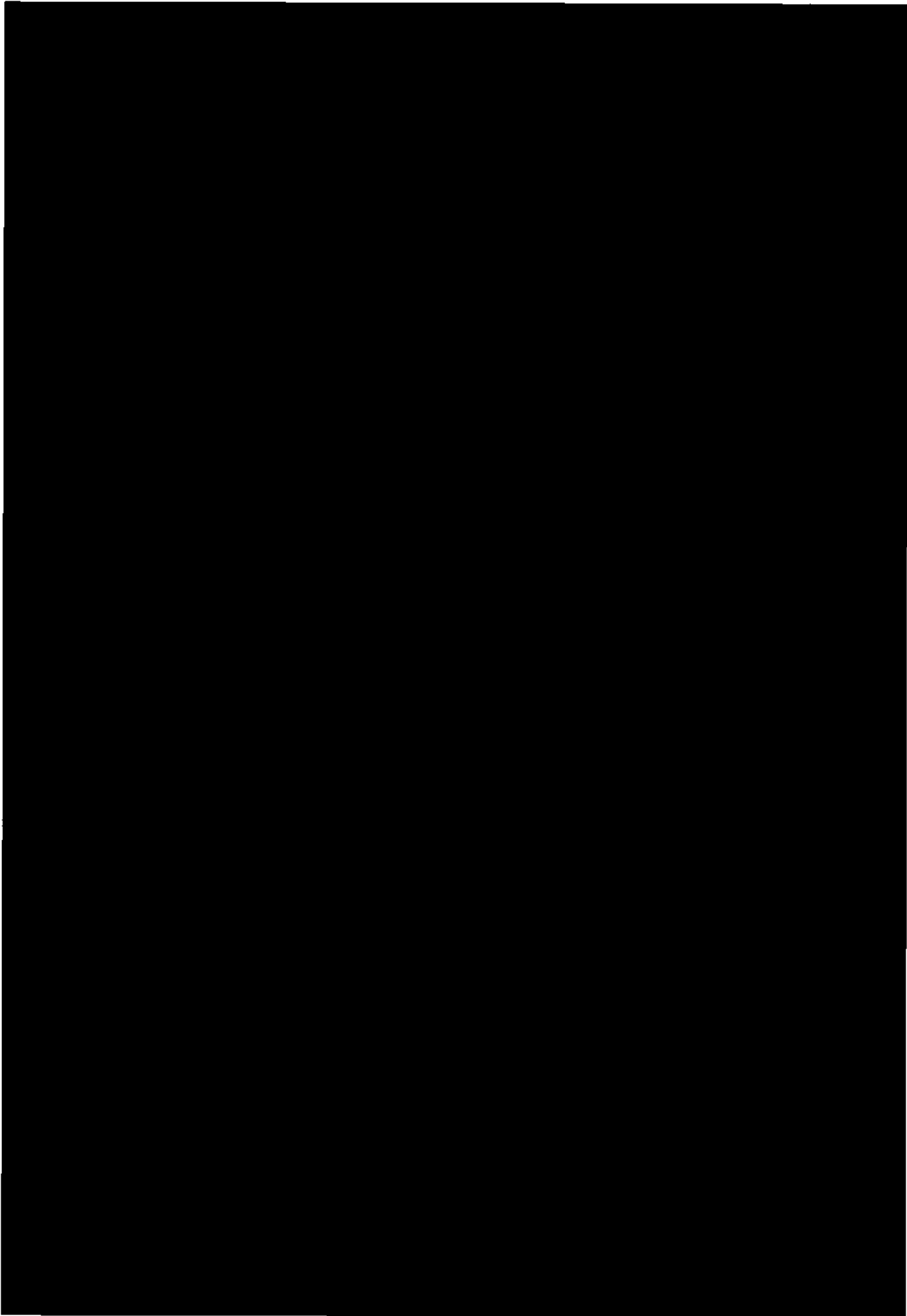
Associate of the Society of Actuaries (ASA)

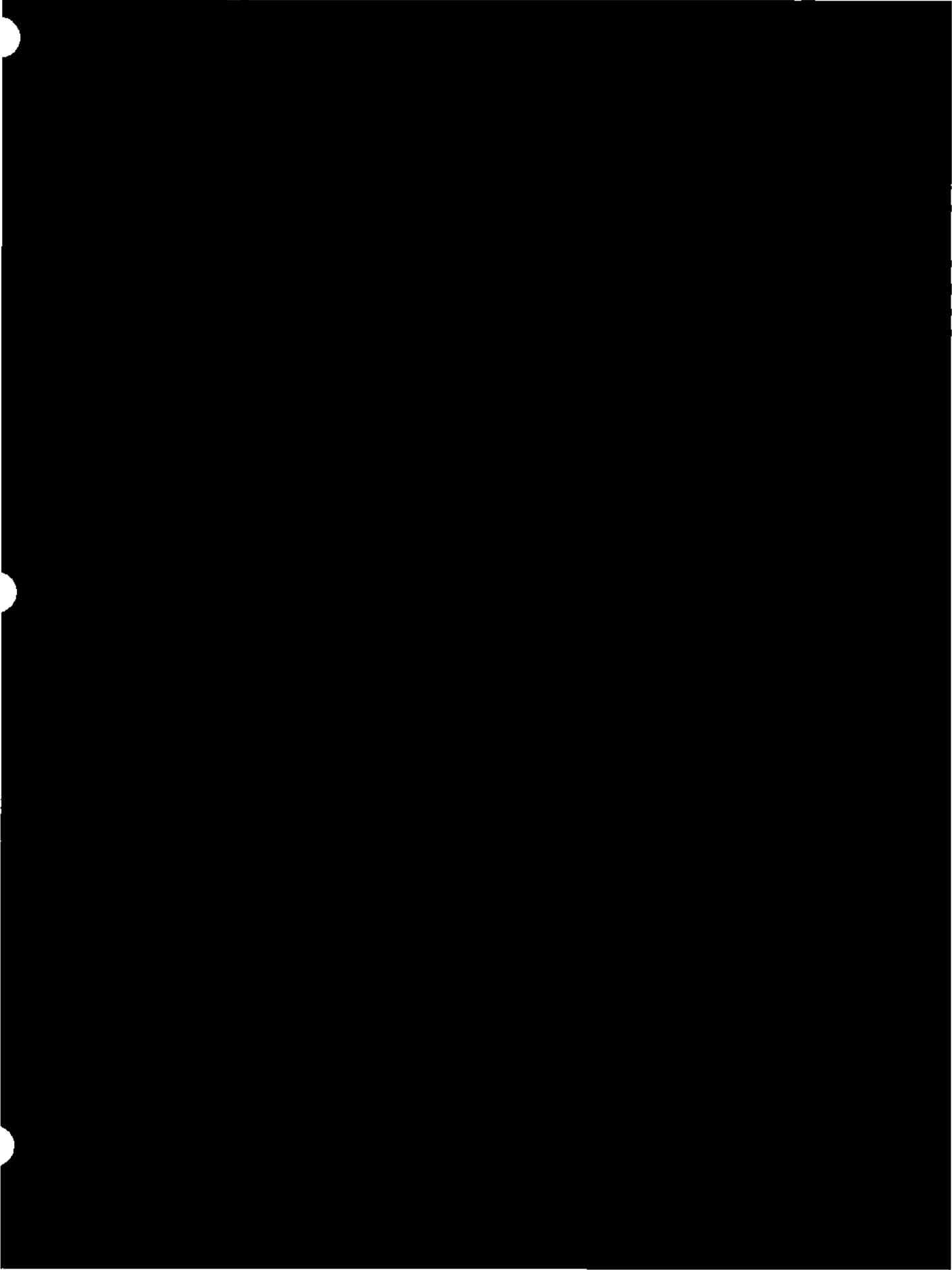
An ASA has demonstrated knowledge of the fundamental concepts and techniques for modeling and managing risk. The Associate has also learned the basic methods of applying those concepts and techniques to common problems involving uncertain future events, especially those with financial implications.

Fellow of the Society of Actuaries (FSA)

An FSA has demonstrated knowledge of the business environments within which financial decisions concerning health insurance (and others disciplines) are made, including the application of advanced concepts and techniques for modeling and managing risk. The FSA has further demonstrated an in-depth knowledge of the application of appropriate concepts and techniques to a specific area of actuarial practice."
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Robert M. Damler, FSA, MAAA

EDUCATION

- | | | |
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| ▪ Bachelor of Science, Actuarial Science | Ball State University | 1987 |
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PROFESSIONAL QUALIFICATIONS

- | | |
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| ▪ Member, American Academy of Actuaries (MAAA) | 1990 |
| ▪ Fellow, Society of Actuaries (FSA) | 1994 |

PROFESSIONAL CONTRIBUTIONS

VOLUNTEERISM

- Chairman, Task Force on Medicaid Rate Setting and Certification, American Academy of Actuaries, Actuarial Standards Board, Actuarial Standard of Practice #49, "Medicaid Managed Care Capitation Rate Development and Certification" (2013 – 2015)
- American Academy of Actuaries, Actuarial Standards Board (2018 – Present)
- American Academy of Actuaries, Actuarial Standards Board, Health Committee, member (2015 – 2017)
- American Academy of Actuaries, Medicaid Workgroup (2001 – Present)
- MACPAC Capitation Rate Setting Roundtable, Medicaid and CHIP Payment and Access Commission, panelist (March 2014)
- Risk Adjustment for High Risk Children Populations, Child and Health Policy Roundtable, panelist (September 2011)
- Society of Actuaries, Education and Examination Committee, Group Health Examinations (1998 – 2002)
- Society of Actuaries, President's Planning Committee (1996 – 1997)
- Ball State University, School of Science and Humanities, Dean's Executive Advisory Council (2010 – Present)
- Ball State University, Actuarial Advisory Council (1996 – 2006)

RESEARCH AND PUBLICATIONS

- Medicaid Work Requirements: Overview of Policy and Fiscal Considerations, Society of Actuaries, In the Public Interest, Issue 16, co-author (January 2018)
- Calendar Year 2016 Medicare Part B premium increase: Impact on state Medicaid programs, Milliman white paper, co-author (October 2015)
- Medicaid Expansion: A Comparison of Two States Under Section 1115 Demonstration Waivers, Society of Actuaries, In the Public Interest, co-author (July 2015)
- Medicaid and the ACA, an overview of 1915(i) State Plan Option, American Academy of Actuaries, Contingencies, co-author (May / June 2015)
- Medicaid Expansion under the Affordable Care Act, SoA Health Watch (July 2013)
- Considerations for Medicaid expansion through health insurance exchange coverage, Milliman Healthcare Reform Briefing Paper, co-author (April 2013)
- PPACA Risk Adjustment Implementation Issues, Milliman Health Care Reform Issue Brief: Indiana Exchange Policy Committee, co-author (February 2012)
- Experience under the Healthy Indiana Plan: The short-term cost challenges of expanding coverage to the uninsured, Milliman Health Reform Briefing Paper (August 2009)
- Risk Adjustment in State Medicaid Programs, co-author, SoA Health Watch (January 2008)
- Risk Adjustment in the Florida Medicaid Reform Program, Research Paper, Florida Association of Health Plans (November 2006)
- Risk Adjustment Systems, Research Paper, New York Coalition of Prepaid Health Services Plans (September 2006)
- Actuarial Certification of Rates for Medicaid Managed Care Programs, Health Practice Council, Practice Note, American Academy of Actuaries, co-author (August 2005)
- Medicare Modernization Act: Financial Issues for State Medicaid Programs, Federal Assumption of Medicaid Prescription Drug Costs for Dual Eligible Individuals, American Academy of Actuaries, Issue Brief, principal author (June 2004)

INDUSTRY PRESENTATIONS

- Risk Adjusters in Medicaid, Society of Actuaries, Session 88, Annual Meeting (October 2015)
- Medicaid Expansion: What did we get Right?, Society of Actuaries, Session 147, Annual Meeting (October 2015)
- Actuarial Standard of Practice #49, Medicaid Managed Care Capitation Rate Development and Certification, Society of Actuaries, Session 52, Spring Health Meeting (June 2015)
- What is Up with Medicaid Expansion, Society of Actuaries, Session 83, Spring Health Meeting (June 2014)
- ACA and the Changing Face of Medicaid, Society of Actuaries, Foundations of Affordable Care Act, Part 3, Spring Health Meeting (June 2013)
- Actuarial Perspectives on Medicaid Managed Care, Medicaid Actuarial Standard of Practice, Society of Actuaries, Session 52, Spring Health Meeting (June 2013)
- Issues in Setting Medicaid Capitation Rates for Integrated Care Plans, MACPAC Report to Congress, external peer reviewer, (March 2013)

RELEVANT WORK EXPERIENCE

Mr. Damler has developed an expertise in the analysis of the risks associated with the financing and delivery of health care services in the Medicaid program. He has provided health care consulting for more than 29 years, including more than 20 years with state Medicaid programs. He has provided consulting services on a wide array of topics, including: managed care capitation rates, population and budget forecasts, 1915(b)/1915(c)/1115 waiver budget neutrality and cost effectiveness calculations, policy guidance, fiscal analysis of proposed legislative changes, and expert testimony to legislative committees regarding Medicaid budgets and proposed legislation.

Mr. Damler provides leadership regarding Medicaid consulting issues both within Milliman and within the Medicaid industry. Examples include the following.

- Established the Medicaid consulting practice in the Indianapolis office in 1994
- Integrated Medicaid consulting services with other Milliman offices to assist in the development of best practices across Milliman offices
- Participated in professional meetings directly related to Medicaid policy, program, and financing
- Identified, hired, trained, and mentored actuarial students, associate actuaries, and consulting actuaries to allow for the expansion of the Medicaid consulting practice in the Indianapolis office which now has more than 40 individuals, including: 12 FSAs, 4 ASAs, and more than 20 data analysts and other support staff
- Provide mentoring advice and peer review to consultants in other Milliman offices, which has led to more than 100 actuaries and other consultants providing Medicaid consulting services to more than 25 state Medicaid agencies in the past 5 years
- Provide consulting services through direct contracts, peer review, or ad hoc projects to the following state Medicaid agencies during professional career: Alabama, Florida, Idaho, Illinois, Indiana, Iowa, Maryland, Michigan, Minnesota, Mississippi, Nebraska, Nevada, Ohio, Puerto Rico, South Carolina, and Washington, as well as led presentations regarding various actuarial issues to CMS and multiple professional meetings and organizations
- Volunteered as the chairman of the American Academy of Actuaries, Actuarial Standards Board, workgroup to draft, edit and provide expert leadership to the establishment of an Actuarial Standard of Practice for Actuarial Sound Capitation Rate Development
- Established a peer relationship with actuaries and other executives within CMS to facilitate open discussion regarding financing and managed care issues
- Established a leadership role in the industry discussion related to Medicaid issues under the ACA

Mr. Damler is a key component of our proposal to perform executive leadership, consulting, peer review, and subject matter expertise. With respect to the actuarial services requested by the Nebraska Human Services Department, the following list provides a background of Mr. Damler's actuarial consulting experience with state Medicaid programs. Mr. Damler's experience with every scope of work outlined in the Department's RFP far exceeds the five-year minimum requirement. This list provides services that are applicable to the scope of services in this RFP and can contribute to some of Nebraska's other strategic initiatives:

- **Capitation Rate-Setting and Risk Adjustment**
 - **Actuarial Standard of Practice:** Chairman of the American Academy of Actuaries, Actuarial Standard of Practice Committee tasked to develop an actuarial standard of practice related to Medicaid managed care capitation rates, ASOP #49
 - **Actuarial Certification of Capitation Rates:** Development and certification of actuarially sound capitation rates in the following states: Indiana, Illinois, Michigan, Iowa, Ohio, and South Carolina. Mr. Damler has performed certification of capitation rates for more than 20 years
 - **Risk Adjustment:** Development and implementation of risk adjuster payment methodologies for risk-based Medicaid managed care programs based on demographic and diagnostic, disease burden characteristics. Risk adjustment has been performed for the following state Medicaid programs: Indiana, Illinois, Michigan, Iowa, Ohio and South Carolina
 - **Expansion Population Analytics:** Consulting services with regard to the design, actuarial cost estimates, and implementation of the creation of managed care programs for uninsured populations in multiple states
 - **PACE Capitation Rate Development:** Provided development and rate certification of PACE capitation rates for the State of Arkansas, State of Indiana, and State of Iowa
- **Risk Corridors and Medical Loss Ratio Support**
 - **State of Michigan, Department of Health and Human Services:** Assist in the design and implementation of risk corridor for ACA adult expansion program and subsequent calculation of the payments based on resulting experience
 - **State of Illinois, Department of Healthcare and Family Services:** Review medical loss calculations performed by contracted managed care organizations for voluntary managed care population for potential rebates to state and federal government
- **Program Review and Audit**
 - **State of South Carolina, Department of Health & Human Services:** Assistance with quarterly encounter data quality reporting
 - **State of Indiana, Family and Social Services Administration:** Review of pay-for-performance calculation pursuant to contracts
- **CMS Waiver Assistance Budget and Forecasting**
 - **State of Michigan, Department of Health and Human Services:** Medicaid expansion design and implementation
 - **State of Indiana, Family and Social Services Administration:** Prepare and assist in discussions with CMS for 1115 waiver filing for a pre-ACA Medicaid expansion program and post-ACA Medicaid alternative benefit plan
 - **State of Alaska, Department of Health and Social Services:** Preparation and review of an 1115 waiver for behavioral health waiver, including an 1115 waiver for coverage of Institution for Mental Disease (IMD) for adult populations for substance abuse services

PERSONAL REFERENCES

Mr. Paul Bowling	Mr. Steve Fitton	Mr. Dan Jenkins
Chief Financial Officer	Medicaid Director (former)	Bureau Chief, Rate Development and Analysis
Indiana, Family and Social Services Administration	State of Michigan	Illinois, Department of Healthcare and Family Services
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Marlene T. Howard, FSA, MAAA

EDUCATION

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| ▪ Bachelor of Mathematics, Honors Actuarial Science | University of Waterloo | 2004 |
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PROFESSIONAL QUALIFICATIONS

- | | |
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| ▪ Member, American Academy of Actuaries (MAAA) | 2008 |
| ▪ Fellow, Society of Actuaries (FSA) | 2012 |

PROFESSIONAL CONTRIBUTIONS

VOLUNTEERISM

- Society of Actuaries Education & Examinations Committee (2012 – Present)
- Society of Actuaries Sections - Health, Social Insurance/Public Finance
- American Academy of Actuaries Medicaid Workgroup

RESEARCH AND PUBLICATIONS

- *Overview of guidance related to actuarial soundness in final Medicaid managed care regulations*, Milliman White Paper (September 2016)
- Co-Author, "Medicaid and the ACA", *May/June 2015 issue of Contingencies*, (bimonthly magazine published by the American Academy of Actuaries)

INDUSTRY PRESENTATIONS

- Society of Actuaries Health Meeting, Miami, FL. Medicaid Risk Adjustment: Role of Encounter Data and Understanding Model-Specific Nuances (June 2017)
- New York Health Plan Association Annual Conference (pre-meeting), Albany, NY. Current Medicaid Topics (November 2016)
- Milliman-hosted industry webinar, Actuarial Soundness in Final Medicaid Managed Care Regulations (November 2016)
- Healthcare Education Associates' LTSS and Dual Eligible Beneficiaries Summit, Los Angeles, CA. LTSS Rebalancing, Rate Setting and Blended Rates (August 2016)
- Society of Actuaries Health Meeting, Philadelphia, PA. Medicaid Managed Care: A Case Study in Making the Big Switch (Moderator for panel discussion) (June 2016)
- Society of Actuaries Health Meeting, Philadelphia, PA. Managed Care Programs for Duals: How do claims work? (June 2016)
- Society of Actuaries Health Meeting, Atlanta, GA. Care Management in Medicaid (June 2015)

RELEVANT WORK EXPERIENCE

Marlene Howard is a principal and consulting actuary with Milliman's Indianapolis office. She joined the firm in 2008, and has over 9 years of experience providing actuarial consulting services to state Medicaid agencies and health plans. Prior to joining Milliman, she gained four years of experience in the employee benefits segment of the healthcare consulting industry, where she assisted large employers with self-insured and fully-insured benefit design and strategy, and was also heavily involved in preparing statutory financial statements.

Ms. Howard is a key contributor to strategic analysis for state Medicaid agencies. She currently provides oversight of all actuarial analyses that are provided for the State of South Carolina's Medicaid program. She has extensive experience with budget forecasting and associated fiscal impact analyses, provider reimbursement analysis, risk scoring for managed care capitation rate-setting projects, capitation rate development and review of capitation rate methodologies for various Medicaid populations. Her experience provides Ms. Howard with the background and experience to quickly adapt to new projects and to effectively serve state Medicaid departments as needed.

The following list provides a background of Ms. Howard's actuarial consulting experience with state Medicaid programs. This list provides services that are applicable to the scope of services in this RFP and can contribute to some of the Department's other strategic initiatives:

Milliman Resume

- **Capitation Rate-Setting and Risk Adjustment**
 - **State of South Carolina, Department of Health & Human Services:** Development of capitation rates, acuity factors, and risk adjustment for TANF and disabled populations (2010 – Present)
 - **State of South Carolina, Department of Health & Human Services:** Demographic analysis and development of capitation rates for community and long-term care dual eligible population (2013 – Present)
 - **State of South Carolina, Department of Health & Human Services:** Development of AWOP and capitation rates for Program of All-Inclusive Care (PACE) (2014 – Present)
 - **State of Ohio, Department of Medicaid:** Development and certification of the Medicaid capitation rates and risk adjustment for the MyCare managed care program for dual eligible population (2017 – Present)
 - **State of Illinois, Department of Medicaid:** Development of the Medicaid capitation rates for the Medicare-Medicaid Alignment Initiative program for dual eligible population (2017)
 - **State of South Carolina, Department of Health and Human Services:** Development of non-emergency medical transportation rate setting and program development (2017 – Present)
- **Risk Corridors and Medical Loss Ratio Support**
 - **State of South Carolina, Department of Health and Human Services:** Oversight and review of medical loss ratio calculation and financial template design (2017 – Present)
 - **State of South Carolina, Department of Health and Human Services:** Oversight and review of MCO risk pool for federally qualified health center expenditures (2017 – Present)
 - **State of South Carolina, Department of Health and Human Services:** Oversight and review of shared savings analyses for Medical Home Network programs in the state (2012 – 2015)
- **Program Review and Audit**
 - **State of South Carolina, Department of Health & Human Services:** Oversight of provider reimbursement analysis (2017 – Present)
 - **State of South Carolina, Department of Health & Human Services:** Assistance with & oversight of monthly data validation processes (2009 – Present)
 - **State of South Carolina, Department of Health & Human Services:** Assistance with & oversight of quarterly encounter data quality reporting (2012 – Present)
 - **State of South Carolina, Department of Health & Human Services:** Annual preparation of analysis comparing Medicaid provider reimbursement to Medicare and state employee health plan provider reimbursement (2012 – 2014)
- **CMS Waiver Assistance Budget and Forecasting**
 - **State of South Carolina, Department of Health & Human Services:** Assistance with completion of Appendix J for 1915(c) waiver renewal (2016)
 - **State of South Carolina, Department of Health & Human Services:** Preparation and management of semi-annual forecasting analyses for Medicaid Assistance budget (2009 – Present)
 - **State of South Carolina, Department of Health & Human Services:** Preparation of fiscal impact analyses on capitation rates and fee-for-service expenditures related to various policy decisions on an ad hoc basis (2009 – Present)
 - **State of Indiana, Family and Social Services Administration:** Preparation and review of quarterly budget tracking reports as required for Healthy Indiana Plan 1115 waiver demonstration (2008 – 2012)
- **Additional Financial Analysis**
 - **State of South Carolina, Department of Health & Human Services:** Preparation and management of Medicaid expansion fiscal impact analyses (2011 – 2016)
 - **State of South Carolina, Department of Health & Human Services:** Preparation of fiscal impact analysis related to modified extension of enhanced primary care physician reimbursement for evaluation & management services beyond calendar year (2014)
 - **State of Alaska Department of Health and Social Services:** Provided technical review of and guidance on analysis of various cost management strategies for the state's ACA expansion population (2016)

PERSONAL REFERENCES

Ms. Erin Boyce, CPA
Deputy Director for Finance and CFO
South Carolina Department of Health and Human Services
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Mr. Bryan Amick
Deputy Director for Health Programs
South Carolina Department of Health and Human Services
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Christopher T. Pettit, FSA, MAAA

EDUCATION

- | | | |
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| ▪ Bachelor of Business Administration | University of Notre Dame | 2002 |
|---------------------------------------|--------------------------|------|

PROFESSIONAL QUALIFICATIONS

- | | |
|--|------|
| ▪ Member, American Academy of Actuaries (MAAA) | 2005 |
| ▪ Fellow, Society of Actuaries (FSA) | 2008 |

PROFESSIONAL CONTRIBUTIONS

VOLUNTEERISM

- Society of Actuaries Sections - Health, Social Insurance/Public Finance, Entrepreneurial Actuaries American Academy of Actuaries Medicaid Workgroup

RESEARCH AND PUBLICATIONS

- *Medicaid risk-based managed care: Analysis of financial results for 2016* (June 2017)
- *Medicaid risk-based managed care: Analysis of administrative costs for 2016* (June 2017)
- *Overview of guidance related to actuarial soundness in final Medicaid managed care regulations*, Milliman White Paper (September 2016)
- *Medicaid expansion: A comparison of two states under Section 1115 demonstration waivers* (May 2015)

INDUSTRY PRESENTATIONS

- Society of Actuaries Webcast – Managing Costs While Improving Care for Children with Medical Complexities (May 2014)
- World Congress Leadership Summit on Medicaid Managed Care (February 2015)

RELEVANT WORK EXPERIENCE

Mr. Pettit is a principal and consulting actuary with Milliman's Indianapolis office. He joined the firm in 2004, and has over 10 years of experience providing actuarial support and consulting to state Medicaid agencies and health plans.

In consulting to state Medicaid agencies, Mr. Pettit works with many of the office's state clients on all aspects of their managed care and fee-for-service programs. He has been heavily involved in capitation rate-setting for multiple managed care populations and benefit programs. He performs other analyses including risk scoring for managed care capitation rate-setting projects, CMS waiver filing applications, program review and audits of the participating health plans and review of capitation rate methodologies for various Medicaid populations. His work amongst the many components of state Medicaid programs assists his clients in maintaining consistency across the entire beneficiary enrollment.

With respect to the actuarial services requested by the State of Nebraska Health and Human Services Department, the following list provides a background of Mr. Pettit's actuarial consulting experience with state Medicaid programs. This list provides services that are applicable to the scope of services in this RFP and can contribute to some of Nebraska's other strategic initiatives:

- **Capitation Rate-Setting and Risk Adjustment**
 - **State of Michigan, Department of Health and Human Services:** Development of Medicaid capitation rates for dual demonstration program (2013 – Present)
 - **State of Michigan, Department of Health and Human Services:** Development of Medicaid expansion capitation rates for newly eligible population (2013 – Present)
 - **State of Michigan, Department of Health and Human Services:** Development of TANF and Disabled capitation rates for traditional Medicaid population (2007 – Present)
 - **State of Michigan, Department of Health and Human Services:** Development of capitation rates for medically complex children (2011 – Present)

Milliman Resume

- **State of Michigan, Department of Health and Human Services:** Development of capitation rates for behavioral health program covering mental health, substance abuse and intellectually and developmentally disabled individuals (2015 – Present)
- **State of Michigan, Department of Health and Human Services:** Development of capitation rates for managed care dental program for children (2009 – Present)
- **State of Michigan, Department of Health and Human Services:** Review and development of capitation rates for Program of All-inclusive Care for the Elderly (PACE) (2011 – Present)
- **State of Michigan, Department of Health and Human Services:** Preparation and management of semi-annual risk adjustment analysis for managed care plans (2008 – Present)
- **Risk Corridors and Medical Loss Ratio Support**
 - **State of Michigan, Department of Health and Human Services:** Assist in the design and implementation of risk corridor for ACA adult expansion program and subsequent calculation of the payments based on resulting experience (2014 – Present)
 - **State of Illinois, Department of Healthcare and Family Services:** Review medical loss calculations performed by contracted managed care organizations for voluntary managed care population for potential rebates to state and federal government (2011 – Present)
 - **State of South Carolina, Department of Health and Human Services:** Prepare and calculate shared savings analyses for Medical Home Network programs in the state (2012 – Present)
 - **State of Illinois, Healthcare and Family Services:** Review of health plan medical loss ratio calculations (2009 – Present)
- **Program Review and Audit**
 - **State of Michigan, Department of Health and Human Services:** Assistance with quarterly encounter data quality reporting (2009 – Present)
 - **State of South Carolina, Department of Health & Human Services:** Assistance with quarterly encounter data quality reporting (2013 – Present)
 - **State of Indiana, Family and Social Services Administration:** Review of pay-for-performance calculation pursuant to contracts (2010 – Present)
 - **State of Michigan, Department of Health and Human Services:** Oversight of data validation processes (2008 – Present)
- **CMS Waiver Assistance Budget and Forecasting**
 - **State of Michigan, Department of Health and Human Services:** Medicaid expansion design and implementation (2012 – Present)
 - **State of Michigan, Department of Health and Human Services:** Preparation and management of annual budget forecasting analyses for Medicaid Assistance budget (2008 – Present)
 - **State of South Carolina, Department of Health & Human Services:** Assistance in preparation and management of quarterly budget forecasting analyses (2012 – 2014)
 - **State of Michigan, Department of Health and Human Services:** Preparation and management of 1915(b), 1915(c) and Section 1115 waiver filings for managed care programs (2008 – Present)
 - **State of Ohio, Department of Medicaid:** Preparation and management of 1915(b) and 1915(c) waiver filings for various managed care programs (2015 – Present)
 - **State of Indiana, Family and Social Services Administration:** Preparation and review of waiver monitoring and development for 1915(b) waiver demonstration (2009 – 2012)
- **Additional Financial Analysis**
 - **State of Michigan, Department of Health and Human Services:** Assess the financial impact of program and policy changes prior to implementation with subsequent evaluation and monitoring of those changes in the managed care programs (2008 – Present)
 - **Indiana Comprehensive Health Insurance Association:** Developed rates and performed financial analysis of the state operated high-risk pool (2007 – 2014)
 - **State of South Carolina, Department of Health & Human Services:** Assessment of various state initiatives and evaluating outcomes (2012 – 2015)

Milliman Resume

- **State of Ohio, Department of Medicaid.** Preparation and presentation of quarterly dashboard reports for financial performance of managed care plans participating in each program (2015 – Present)
- **State of Indiana, Family and Social Services Administration:** Preparation and review of waiver monitoring and development for 1915(b) waiver demonstration (2009 – 2012)
- **State of Michigan, Department of Health and Human Services:** Fiscal impact analyses on ad hoc basis (2007 – Present)
- **State of Oklahoma, Department of Health:** Provided financial analysis to accompany state innovation model application Medicaid, Medicare, and commercial population (2015 – 2016)

Personal References

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Jill S. Herbold, FSA, MAAA

EDUCATION

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| ▪ Bachelor of Science, Actuarial Science | University of Illinois, Urbana-Champaign | 1993 |
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PROFESSIONAL QUALIFICATIONS

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| ▪ Member, American Academy of Actuaries (MAAA) | 1997 |
| ▪ Fellow, Society of Actuaries (FSA) | 1996 |

PROFESSIONAL CONTRIBUTIONS

RESEARCH AND PUBLICATIONS

- *Differences between Medicare ACO Tracks that may impact ACO financial results*, Milliman White Paper commissioned by the National Association of ACOs (October 2017)
- *What predictive analytics can tell us about key drivers of MSSP results*, Milliman Research Report (September 2017)
- *2015 Commercial health insurance: Overview of financial results*, Milliman Research Report (March 2017)
- *Performance of skilled nursing facilities for the Medicare population*, Milliman Research Report (December 2016)
- *2014 Commercial health insurance: Overview of financial results*, Milliman Research Report (March 2016)
- *Evaluating healthcare provider performance*, Milliman White Paper (October 2015)
- *Challenges with measuring savings in shared savings arrangements*, Milliman White Paper (March 2015)
- *Administrative expenses: 2010 Commercial health insurance*, Milliman Research Report (February 2012)
- *Medical loss ratios and illustrative rebates: 2010 Commercial health insurance*, Milliman Research Report (February 2012)
- *Insured Financing for Health Plans, Self-Financing of Health and Welfare Plans, Health Care Cost Management, Consumer-Directed Health Plans and Savings Accounts*, Trustee Handbook (2011)

INDUSTRY PRESENTATIONS

- *Understanding Benchmarks*, Boot Camp of the National Association of ACOs (February 2018)
- *Financial Modeling for ACO Tracks and Value-Based Contracts*, Fall Conference of the National Association of ACOs (2017)
- *Innovative Uses of Risk Adjustment*, Society of Actuaries Health Meeting (June 2017)
- *Measuring and Benchmarking SNF Performance Metrics for ACOs and MA Plans*, Webinar (March 2017)
- *Actuarial Perspectives on Accountable Care Organizations*, Society of Actuaries Webinar (January 2013)
- *Operational & Financial Issues: Lessons Learned from a Pioneer ACO*, ACO Congress (October 2012)
- *2011 Commercial Health Insurance Financial Results – Market Trends and PPACA Impact*, Tri-State Actuarial Club Annual Conference (September 2012)
- *Projections of Financial Expenditures for Pioneer ACOs*, CMMI Pioneer ACO Data Analysis Webinar (August 2012)
- *Employer Considerations for 2012*, Indiana Employers Quality Health Alliance (January 2012)
- *Reserve Research Project*, Tri-State Actuarial Club Annual Conference (September 2011)
- *Guidance for the New Appointed Actuary*, Society of Actuaries Valuation Actuary Symposium (September 2011)

RELEVANT WORK EXPERIENCE

Ms. Herbold is a consulting actuary with Milliman's Indianapolis office. Since joining the firm in 2009, she has provided actuarial consulting services to commercial and Medicaid health plans, self-funded groups, Medicaid state agencies, and provider organizations. Prior to joining Milliman, Ms. Herbold worked for CIGNA for 16 years, where she gained experience with commercial pricing, financial projections, acquisitions, and provider reimbursement analysis and strategy.

Ms. Herbold leverages her broad range of health care financial experience to be a strategic business partner with clients. Her experience includes developing premium rates, benefit plan design, provider contract evaluations, reserving, financial reporting, traditional and innovative uses of risk scores, and multi-year financial projections. Since 2011, she has been involved with a variety of opportunities supporting provider payment reform and alternative payment models, such as reimbursement benchmarking, provider performance analysis, assessing health care expenditure savings opportunities, financial projections and evaluations, and program design. Ms. Herbold has leveraged her diverse experience base in support of state Medicaid agencies over the last two years.

With respect to the actuarial services requested by the Nebraska Human Services Department, the following list provides a background of Ms. Herbold's actuarial consulting experience with state Medicaid programs. This list provides services that are applicable to the scope of services in this RFP and can contribute to some of Nebraska's other strategic initiatives:

- **Capitation Rate-Setting and Risk Adjustment**
 - **State of Illinois, Department of Healthcare and Family Services:** Development of Medicaid capitation rates for disabled adults, TANF, newly eligible, MLTSS, and dual demonstration populations (2017 – Present)
 - **Commercial Market:** Development of fully insured premium rates for the individual, small group, and large group markets for multiple health plans (2007 – Present)
- **Risk Corridors and Medical Loss Ratio Support**
 - **State of Illinois, Department of Healthcare and Family Services:** Review medical loss calculations performed by contracted managed care organizations for voluntary managed care population for potential rebates to state and federal government (2017 – Present)
 - **Commercial Market:** Development of risk corridor and medical loss ratio rebate estimates for the individual, small group, and large group markets for multiple health plans (2014 – Present)
- **Program Review and Audit**
 - **Accountable Care Organizations:** Review of shared risk calculations pursuant to contracts (2011 – Present)
- **Additional Financial Analysis**
 - **State of Illinois, Department of Healthcare and Family Services:** Assess the financial impact of program and policy changes prior to implementation in the managed care programs (2017 – Present)
 - **Accountable Care Organizations:** Assess methodologies and opportunities to produce savings under shared savings/loss contracts (2011 – Present)
 - **State of Ohio, Department of Medicaid:** Financial feasibility study for gain share agreement with primary care practices (2016 – 2017)

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Jeremy Cunningham, FSA, MAAA

EDUCATION

- Bachelor of Science, Actuarial Science and Statistics, Purdue University 2011
Summa cum laude and honors; minor in management

PROFESSIONAL QUALIFICATIONS

- Member, American Academy of Actuaries (MAAA) 2013
- Fellow, Society of Actuaries (FSA) 2014

PROFESSIONAL CONTRIBUTIONS

RESEARCH AND PUBLICATIONS

- *Encounter data standards: Implications for state Medicaid agencies and managed care entities from final Medicaid managed care rule*, Milliman White Paper (May 2016)
- *Expansion of ASD treatment to a Medicaid EPSDT benefit*, Milliman White Paper (May 2015)

INDUSTRY PRESENTATIONS

- *Encounter Data: Managed Care Rule and the Encounter Quality Dashboard (EQD)*
Medicaid Enterprise Systems Conference (2016)
- *Encounter data standards: Implications for state Medicaid agencies and managed care entities from final Medicaid managed care rule* Medicaid Innovations Conference (2017)
- *Data Analytics Required to Be Successful in Managed Care*
State Healthcare IT Connect Summit (2017)

RELEVANT WORK EXPERIENCE

Mr. Cunningham is an actuary with Milliman's Indianapolis Health Practice. He joined the firm in 2011 and has over 7 years of experience providing actuarial support to state Medicaid agencies including capitation rate-settings, risk adjustment, financial impacts of policy and program changes, and other Medicaid functions. He has gained a great deal of technical expertise including raw data processing and manipulation, cleaning, and quality review. He also has led the development of a DRIVE, which is a web-based application that allows users to visualize and quickly manipulate their historical experience data relative to benchmark data, including evaluating the quality of the underlying encounter data supporting the capitation rate development. Lastly, he has experience using GitHub, which is a version control software that enhances Milliman's comprehensive peer review process.

▪ Managed Care Services

- **State of Michigan, Department of Health and Human Services:** Development of capitation rates for specialty services managed care program, including evaluation of encounter and financial cost data, monitoring of eligibility changes, evaluation of risk adjustment variables (2011 – Present)
- **State of Michigan, Department of Health and Human Services:** Development of capitation rates for medical services managed care program, including TANF, Disabled, and ACA Adult populations, including risk adjustment calculations, encounter data validation, and analysis of policy changes (2017 – Present)
- **State of Ohio, Department of Medicaid:** Development of capitation rates for acute care managed care program, including TANF, Disabled, and ACA Adult populations, including risk adjustment calculations, encounter data validation, and analysis of policy changes (2015)
- **State of Illinois, Department of Healthcare and Family Services:** Development of capitation rates for acute care and long-term supports and services (LTSS) for TANF, Disabled, and ACA Adult populations, including risk adjustment, encounter data validation, and analysis of policy changes (2016)
- **State of Indiana, Family and Social Services Administration (FSSA):** Development of NEMT capitation rates for populations not already covered in managed care, including encounter data validation, evaluating of program changes, managed care efficiency adjustments, and development of non-benefit expense assumptions (2016)

- **Encounter Data Quality and Financial Reporting**
 - **State of Michigan, Department of Health and Human Services:** Implemented encounter data monitoring and quality improvement process for specialty services and medical services managed care programs, including the deployment of the DRIVE™ tool to facilitate the sharing of encounter data summaries between managed care entities and DHHS (2013 – Present)
 - **State of Illinois, Department of Healthcare and Family Services:** Supported improvement in encounter data and financial reporting by working with HFS' managed care encounters team, including the implementation of a comprehensive process to reconcile Encounter Utilization Monitoring (EUM) reports to managed care organizations' financial statements (2016 – Present)
- **CMS Waivers and Budget Forecasting**
 - **State of Indiana, Family and Social Services Administration (FSSA):** Develop annual budget estimates for an 1115 demonstration providing comprehensive substance abuse services (2016)
 - **State of Michigan, Department of Health and Human Services:** Development of 1115 demonstration budget neutrality projection and narrative for the state of Michigan's transition of their managed behavioral health and HCBS program from a 1915(b)/(c) to an 1115 waiver, which included incorporating other waiver populations which were previously covered on a fee-for-service basis benefit (2016 – Present)
 - **State of South Carolina, Department of Health and Human Services:** Annual forecasting analyses for Medicaid Assistance budget (2017 – Present)
 - **State of Alaska, Department of Health and Social Services:** Development of 1115 demonstration budget neutrality projection and narrative for the state of Alaska's behavioral health transformation. Perform health care reform financial projections related to recent healthcare reform legislative proposals (2017 – Present)
- **Taxes, Fees, and Supplemental Payments**
 - **State of Michigan, Department of Health and Human Services:** Adjust capitation rates for applicable taxes and supplemental payments, including use tax, claims tax, and pass-through payments (2011 – Present)
- **Additional Financial Analysis**
 - **State of Michigan, Department of Health and Human Services:** Evaluation of incentive payment methodology to improve outreach to foster children with serious emotional disturbances (2012 – Present)
 - **State of Michigan, Department of Health and Human Services:** Assess revenue impacts to MCOs participating in managed care specialty services program resulting from changes in the risk adjustment methodology used in the capitation rate development process (2011 – Present)

Personal References

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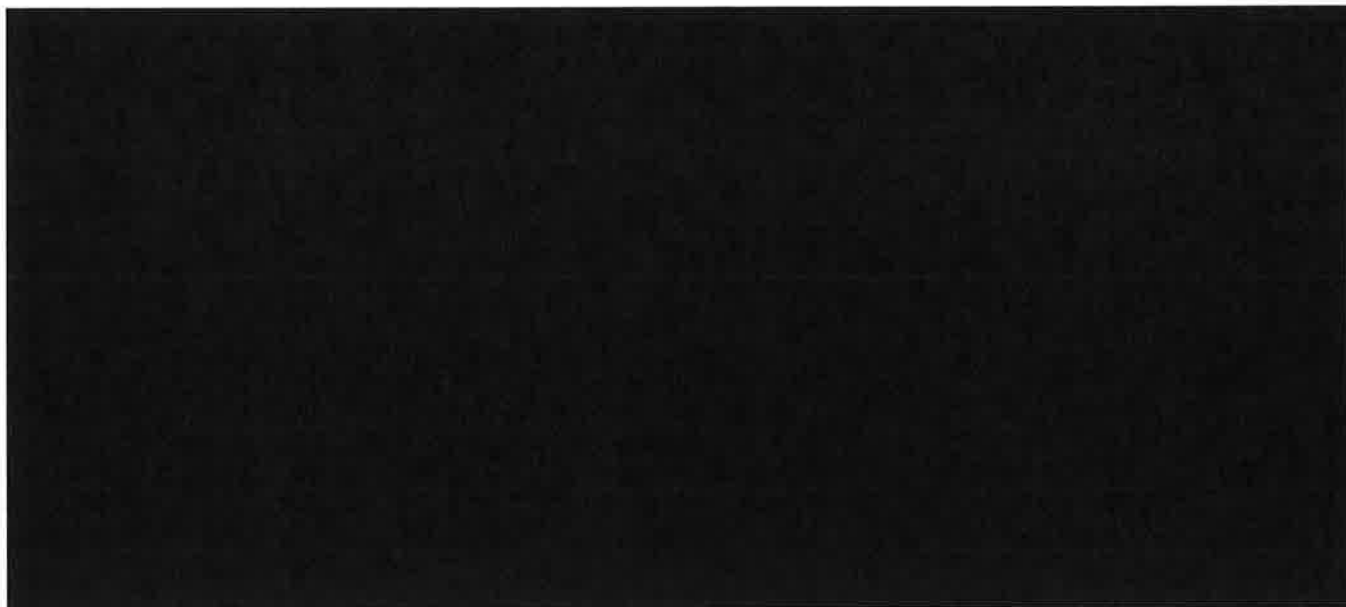
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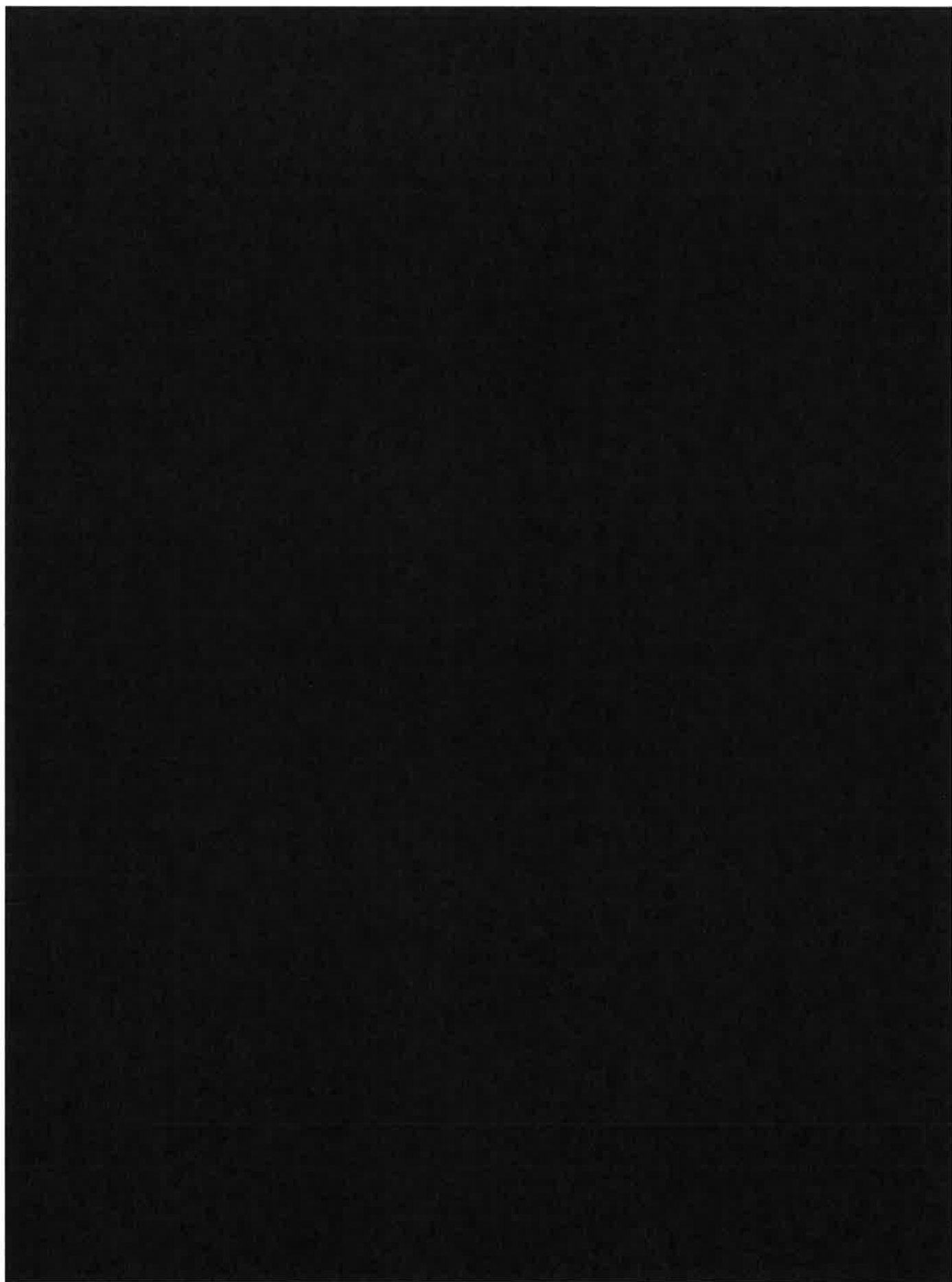
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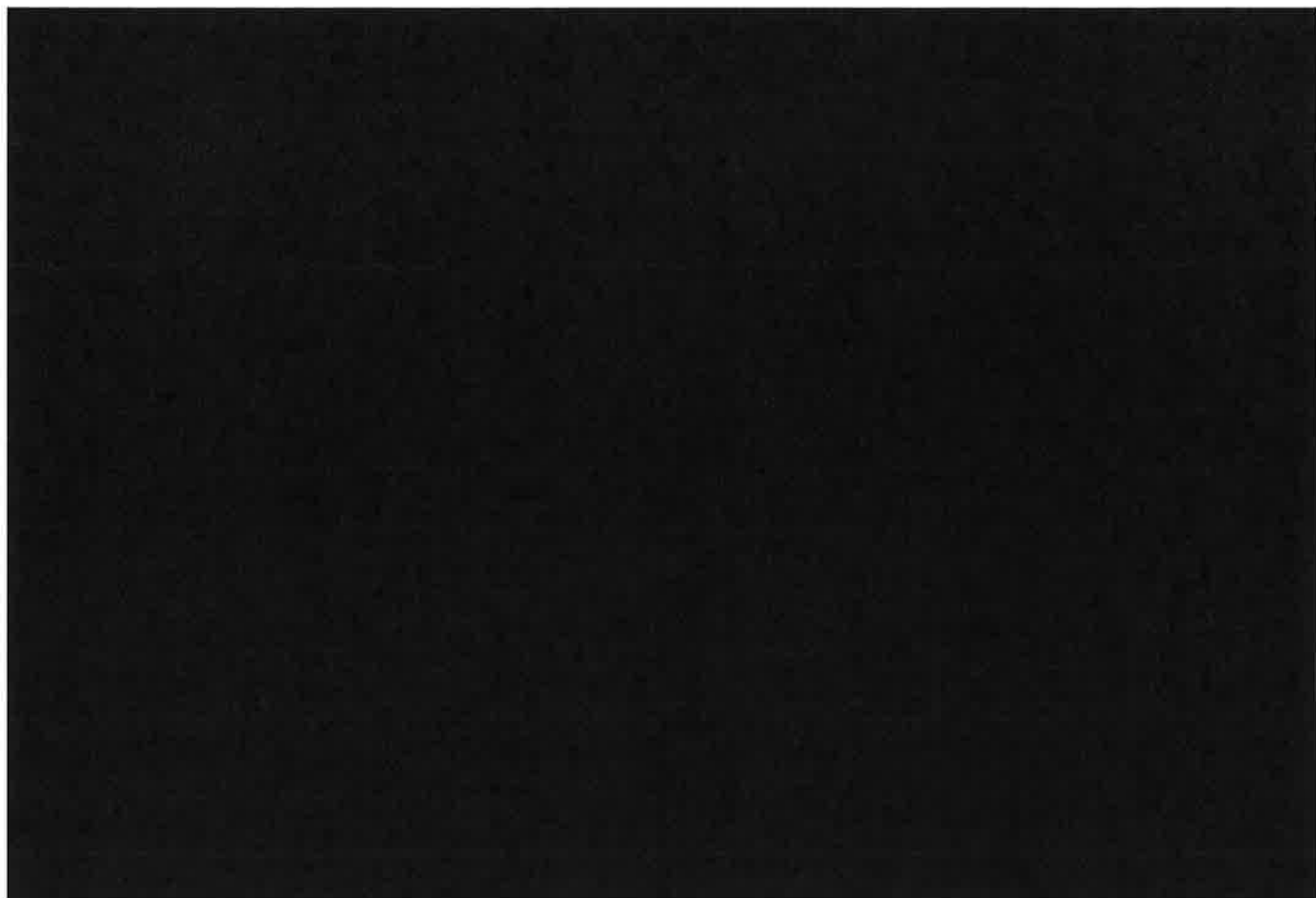
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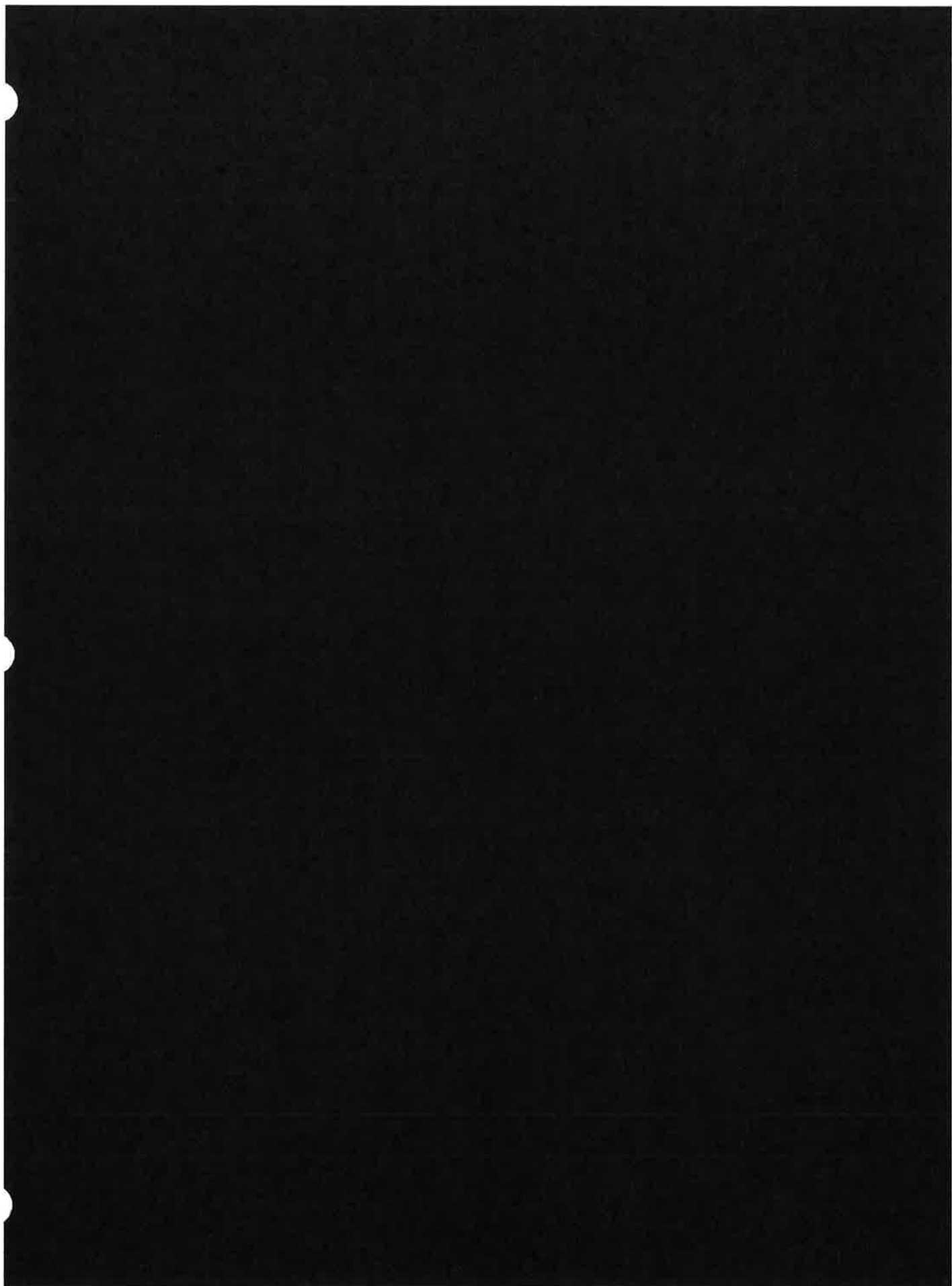
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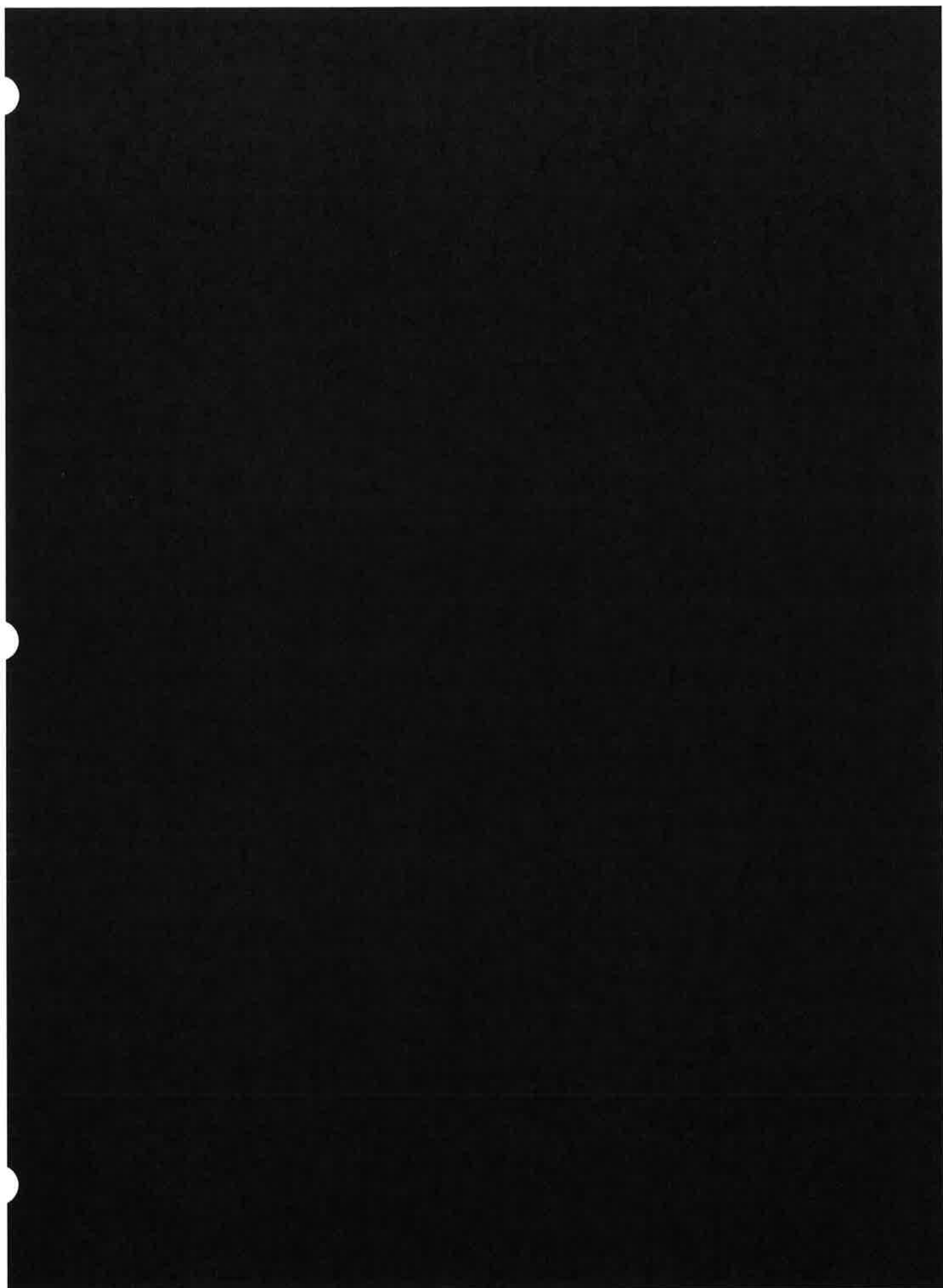
specific capitation rates across several Medicaid populations (2017)

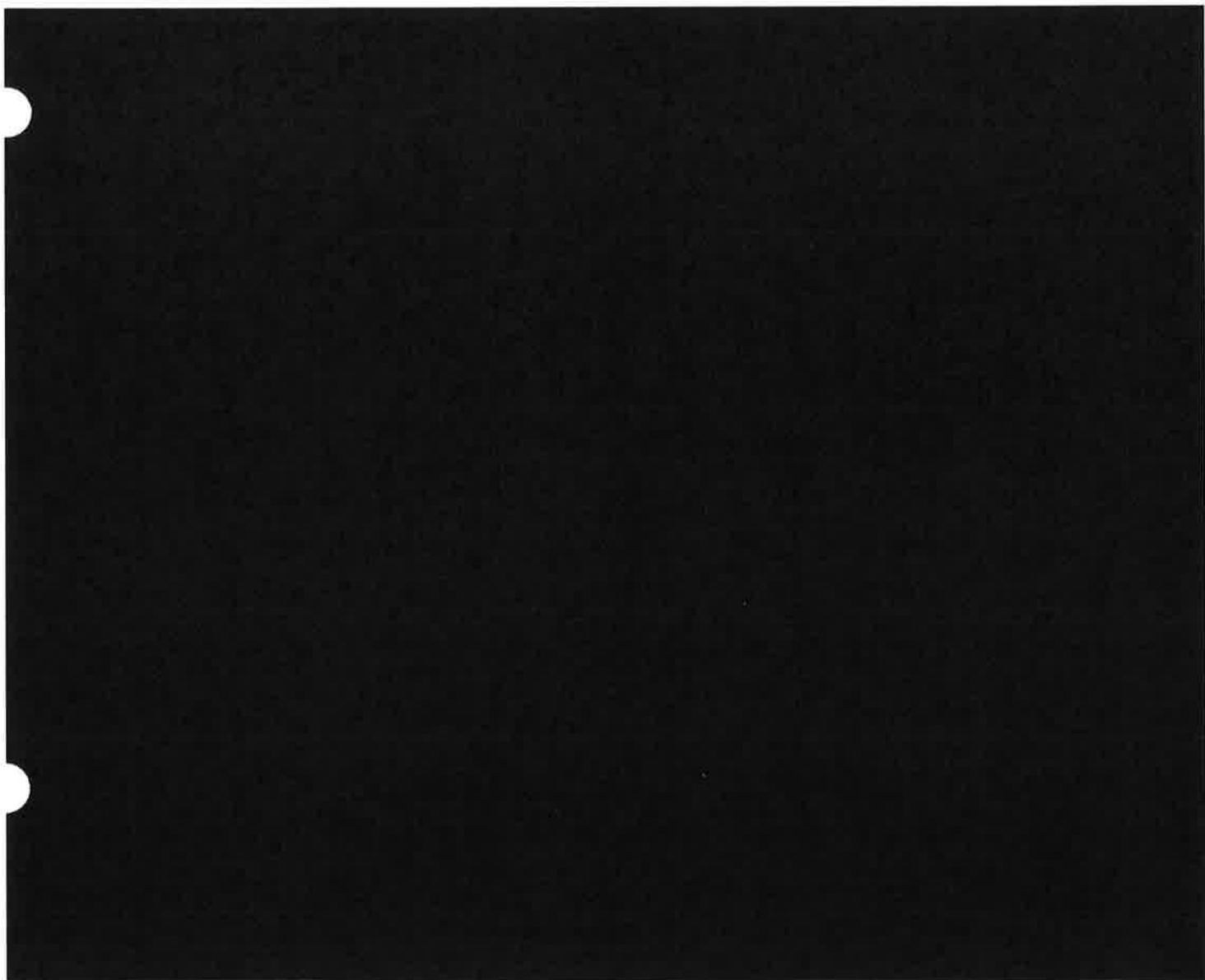


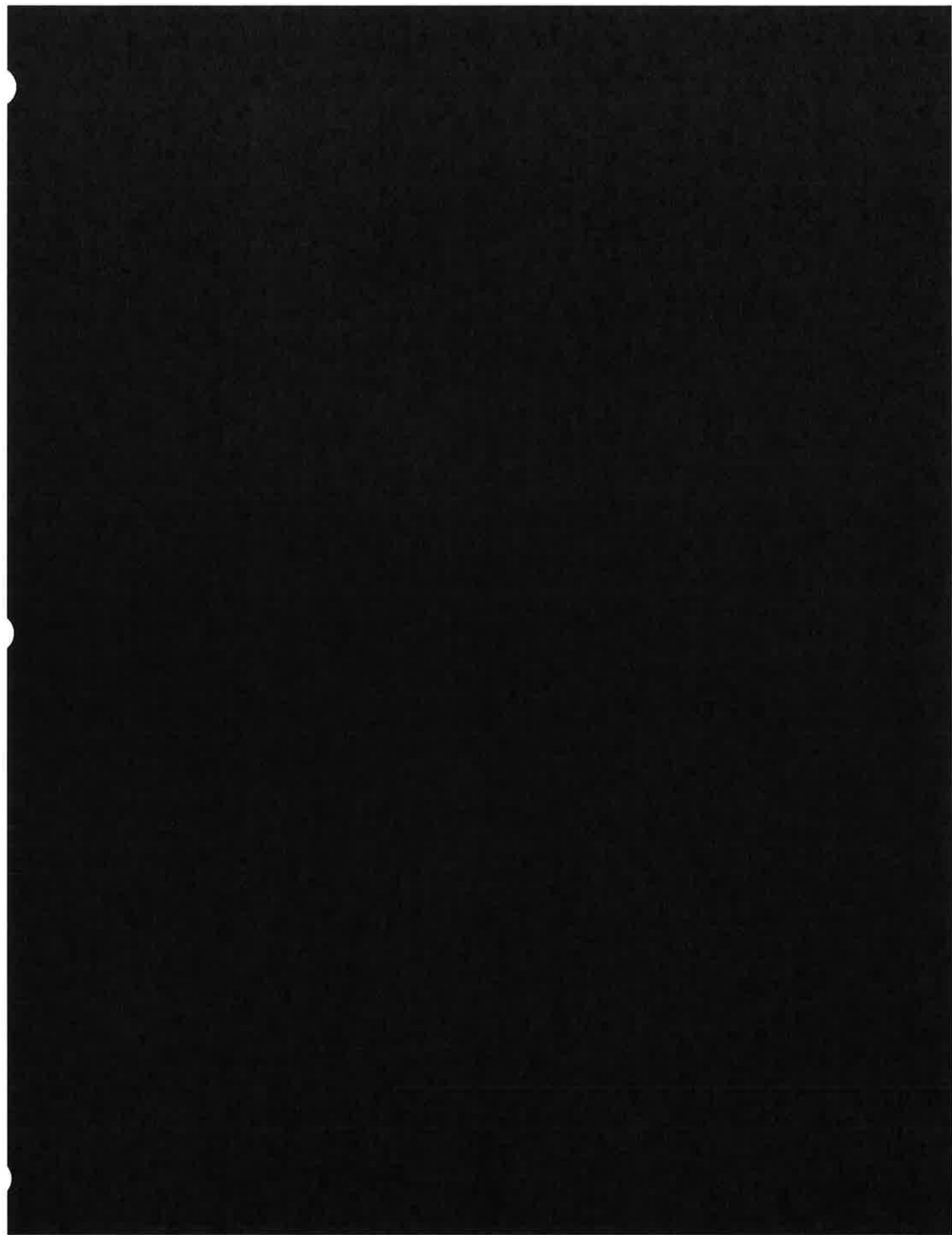


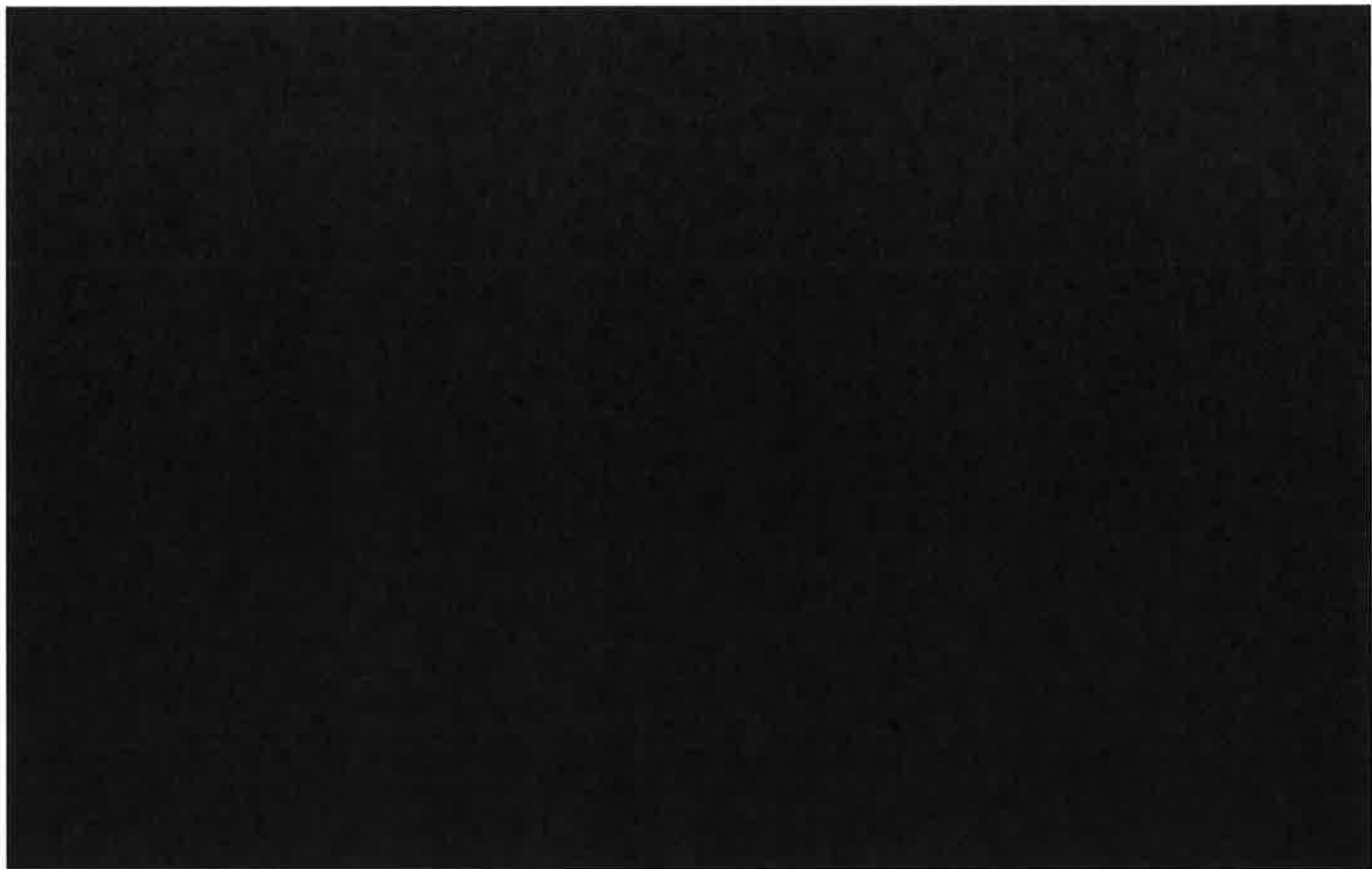


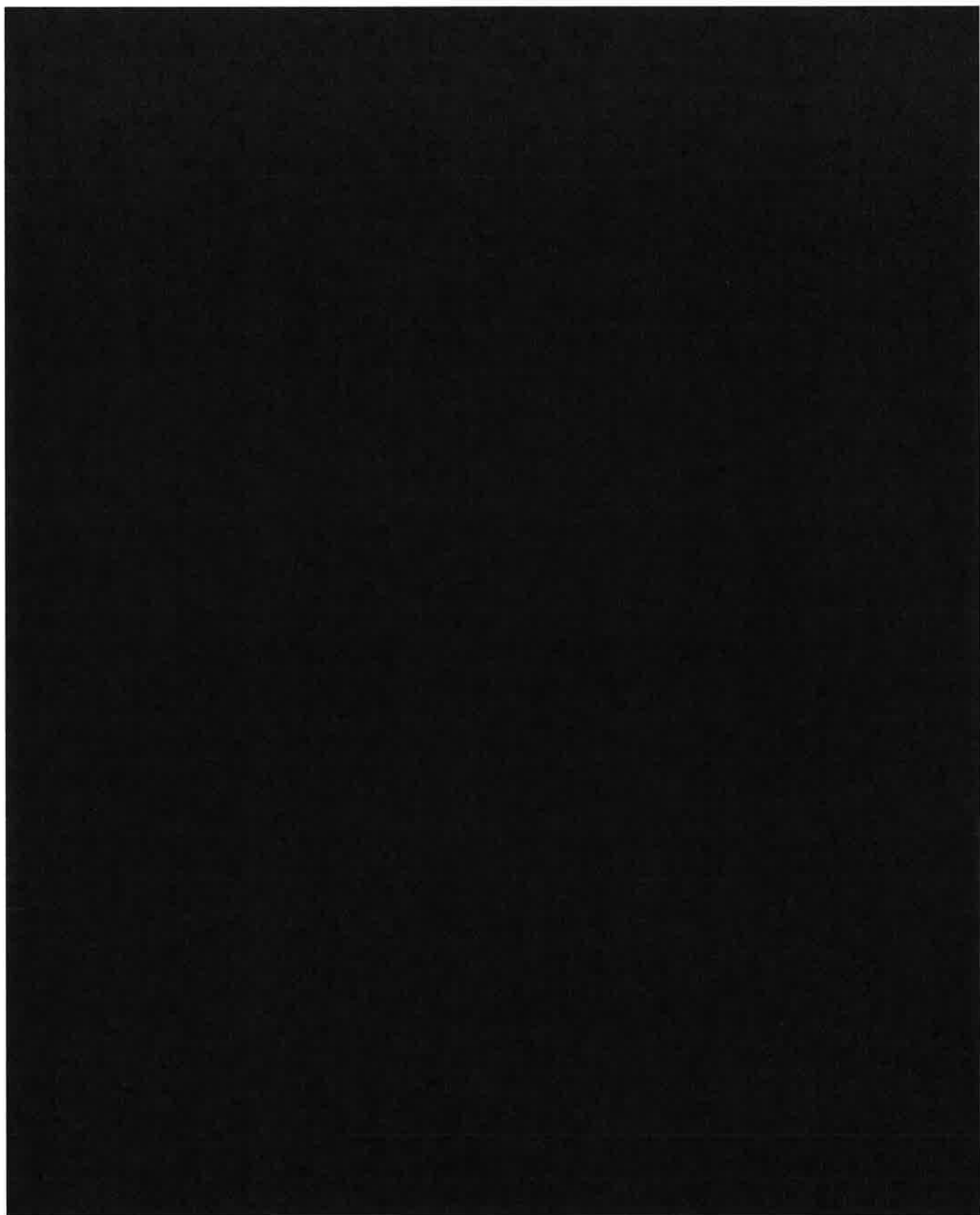


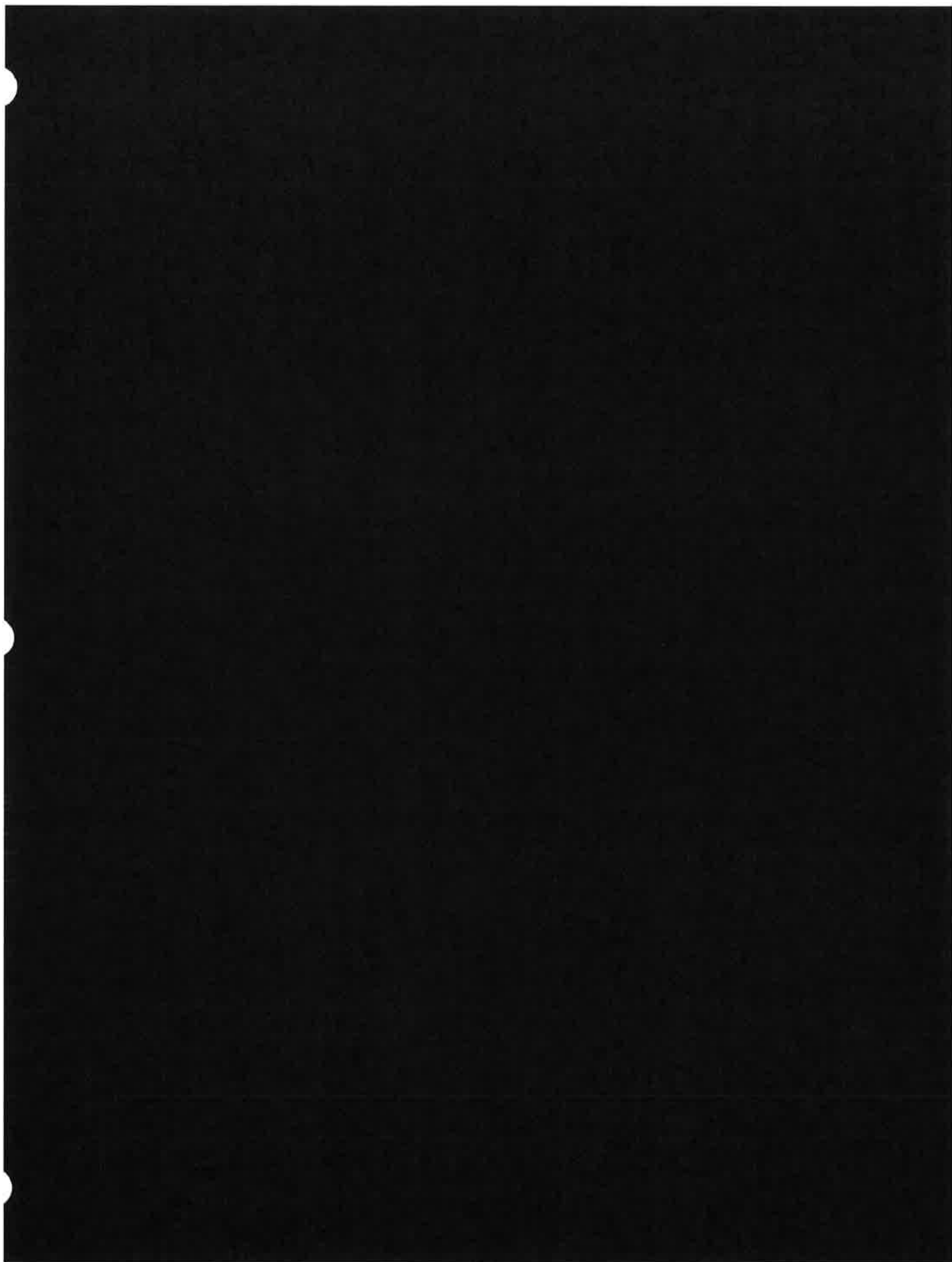


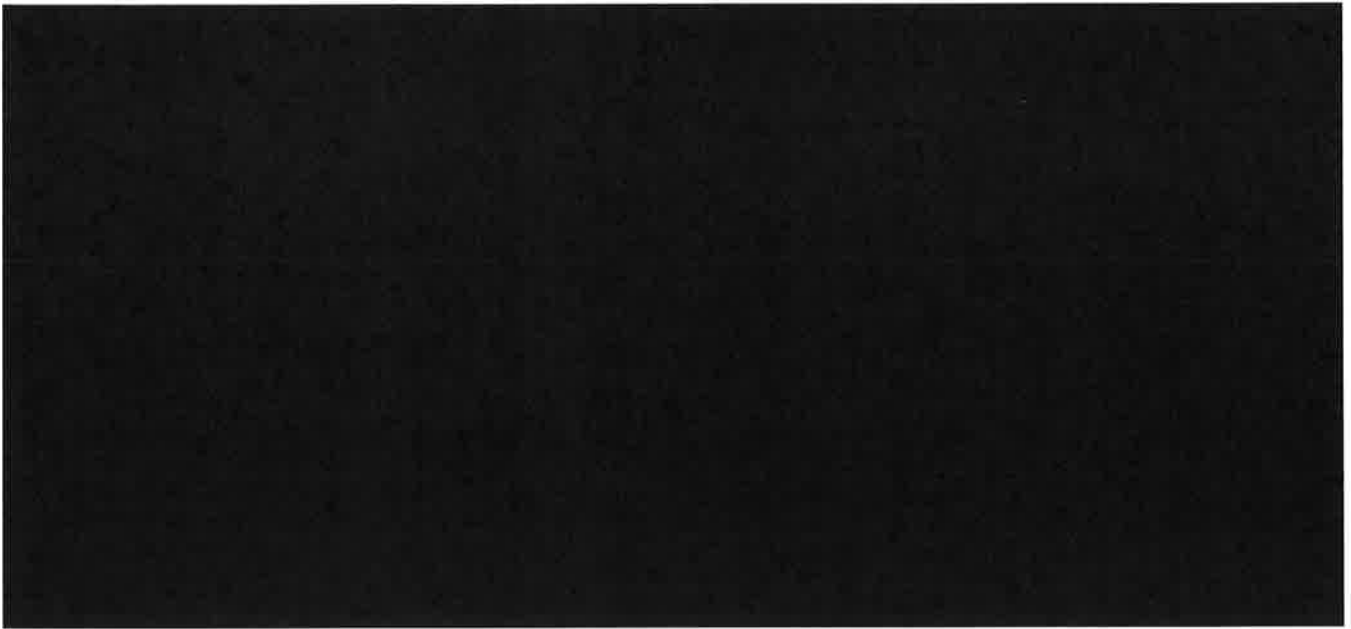


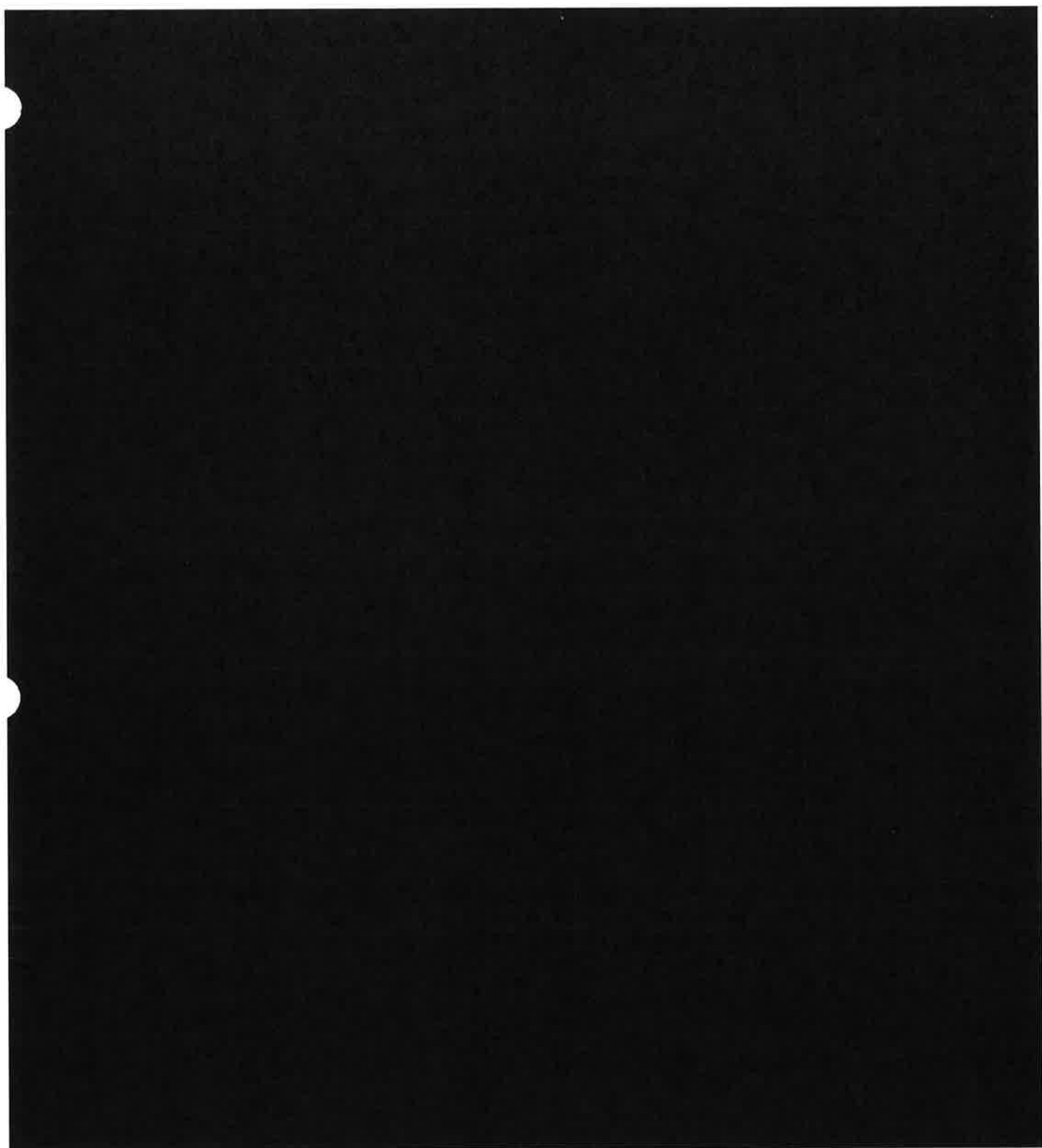


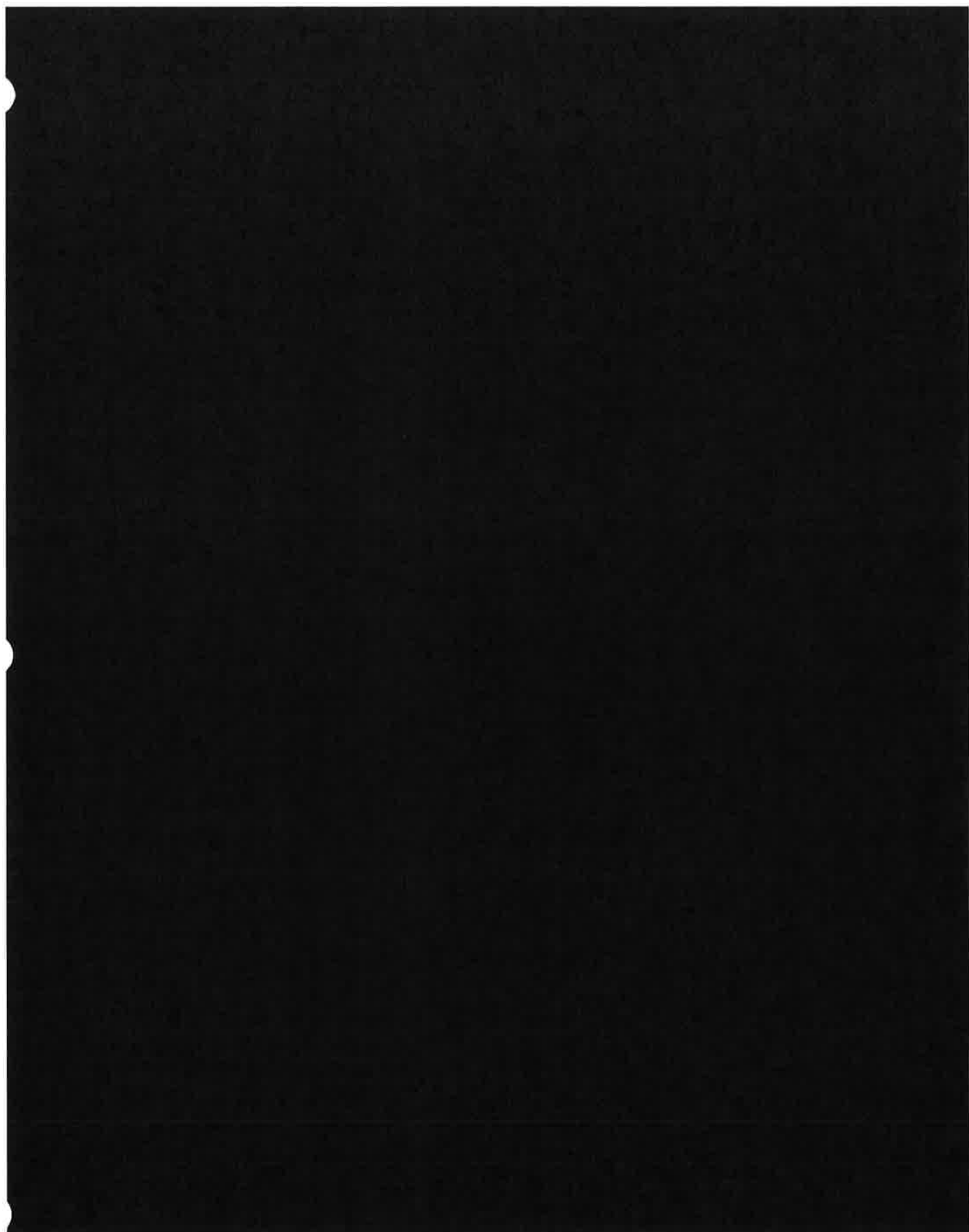


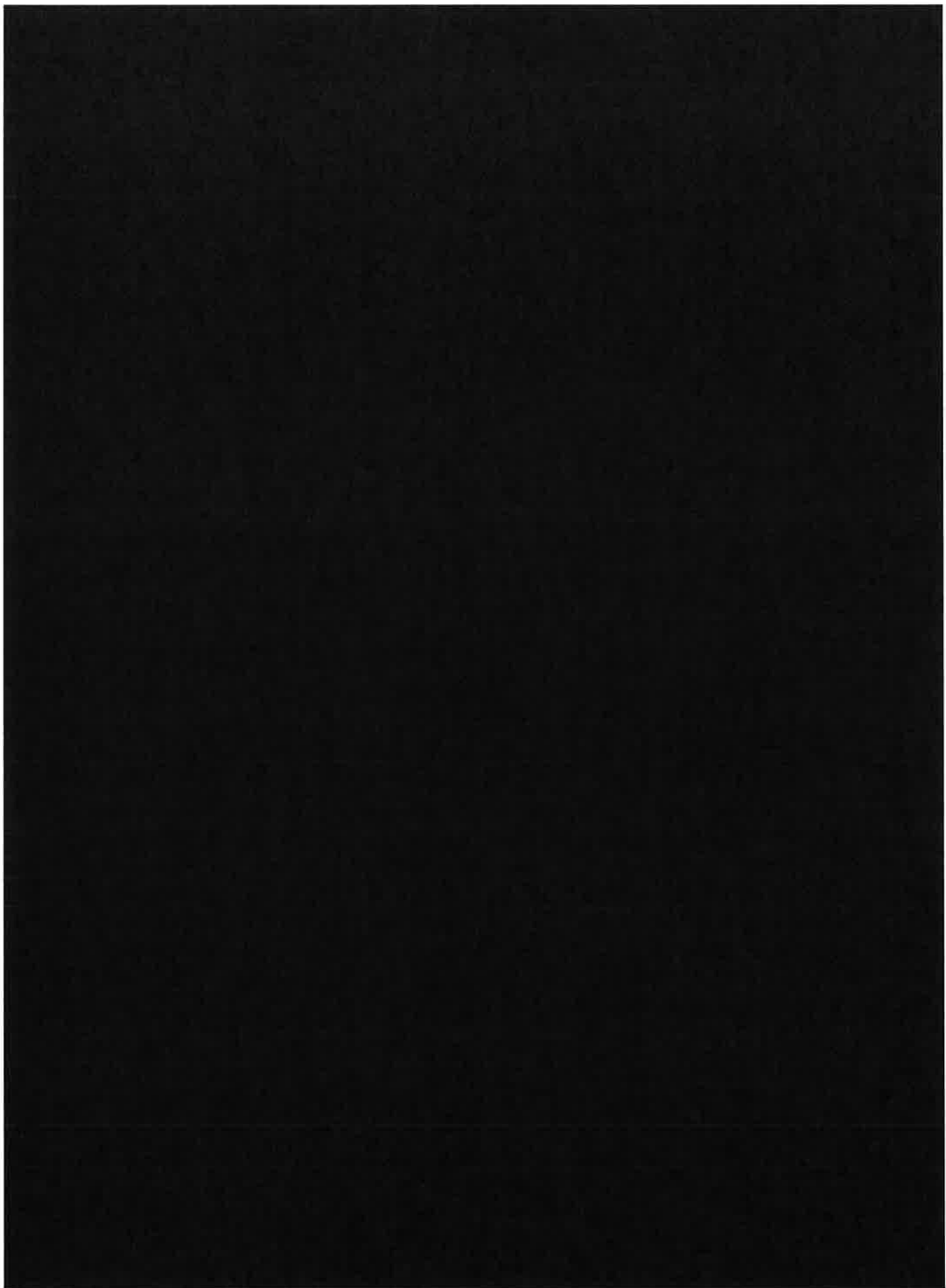


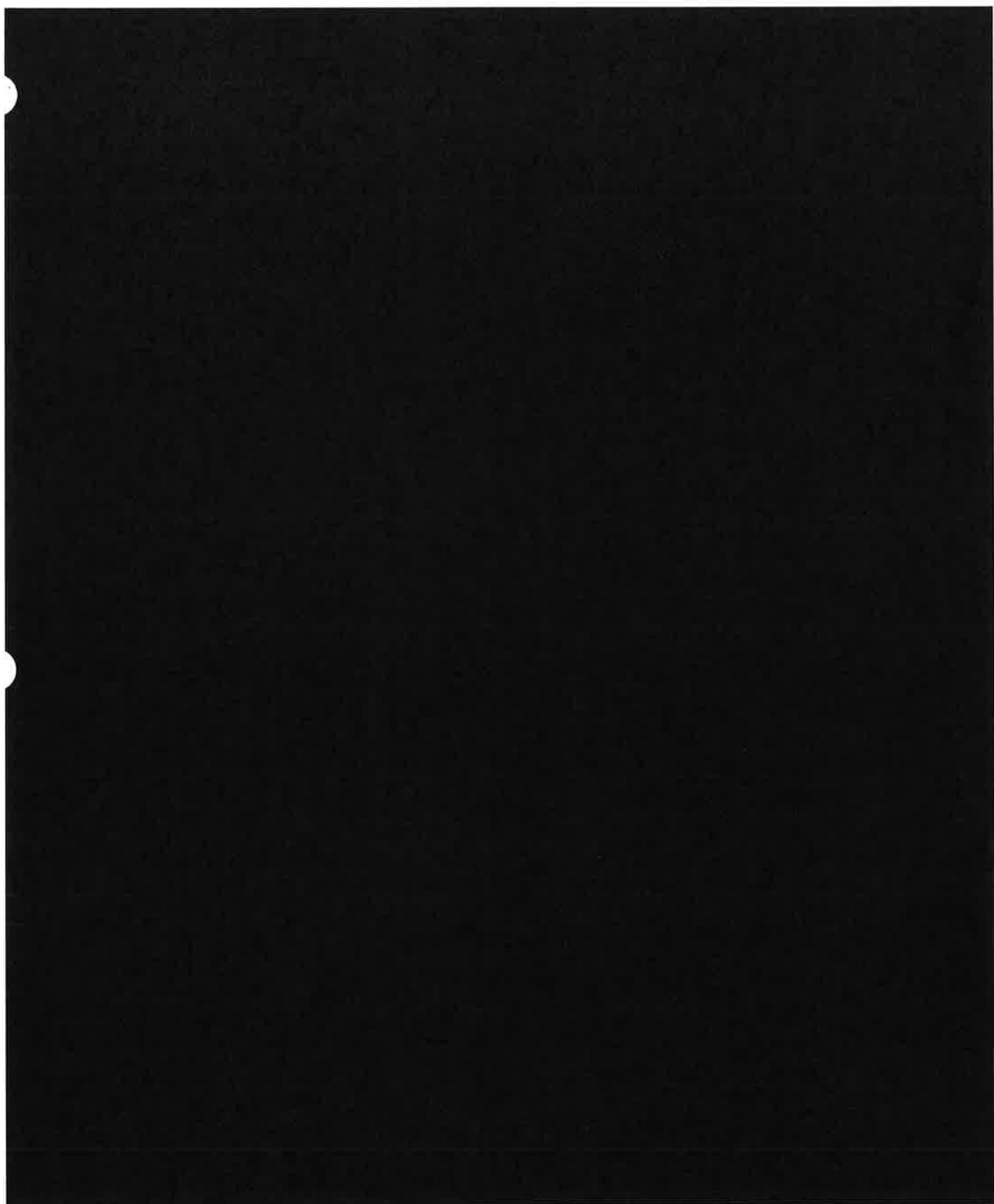


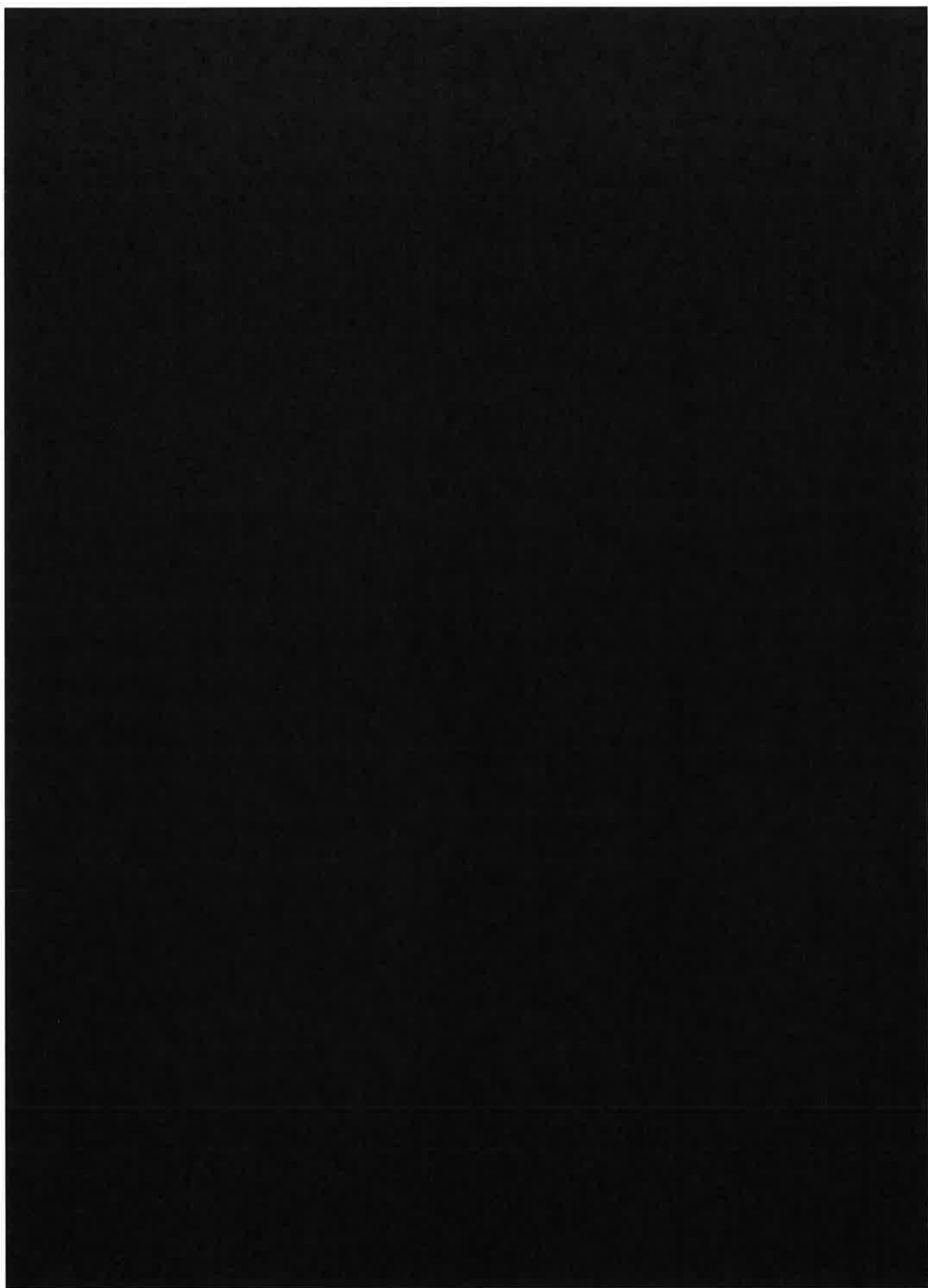




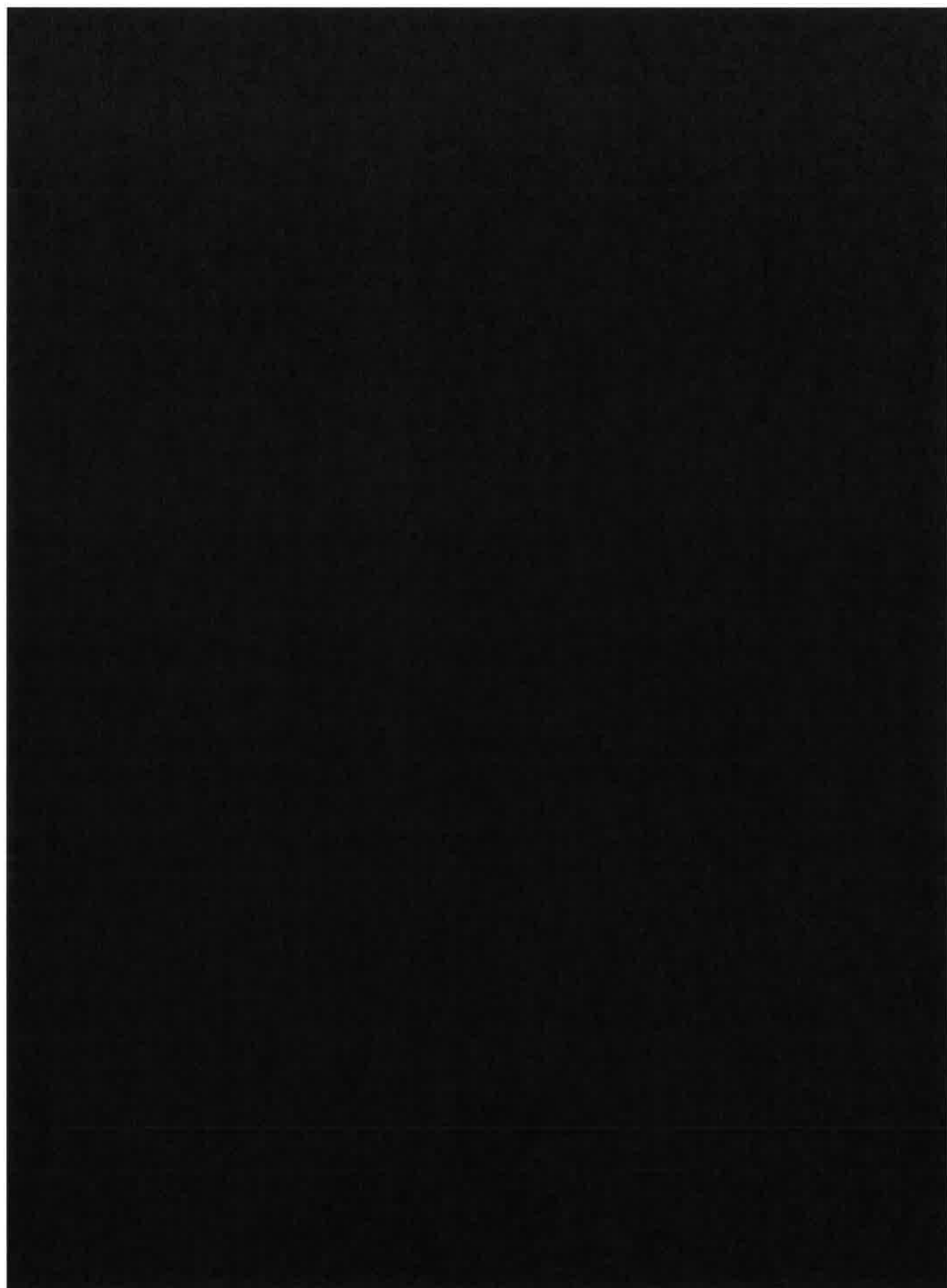


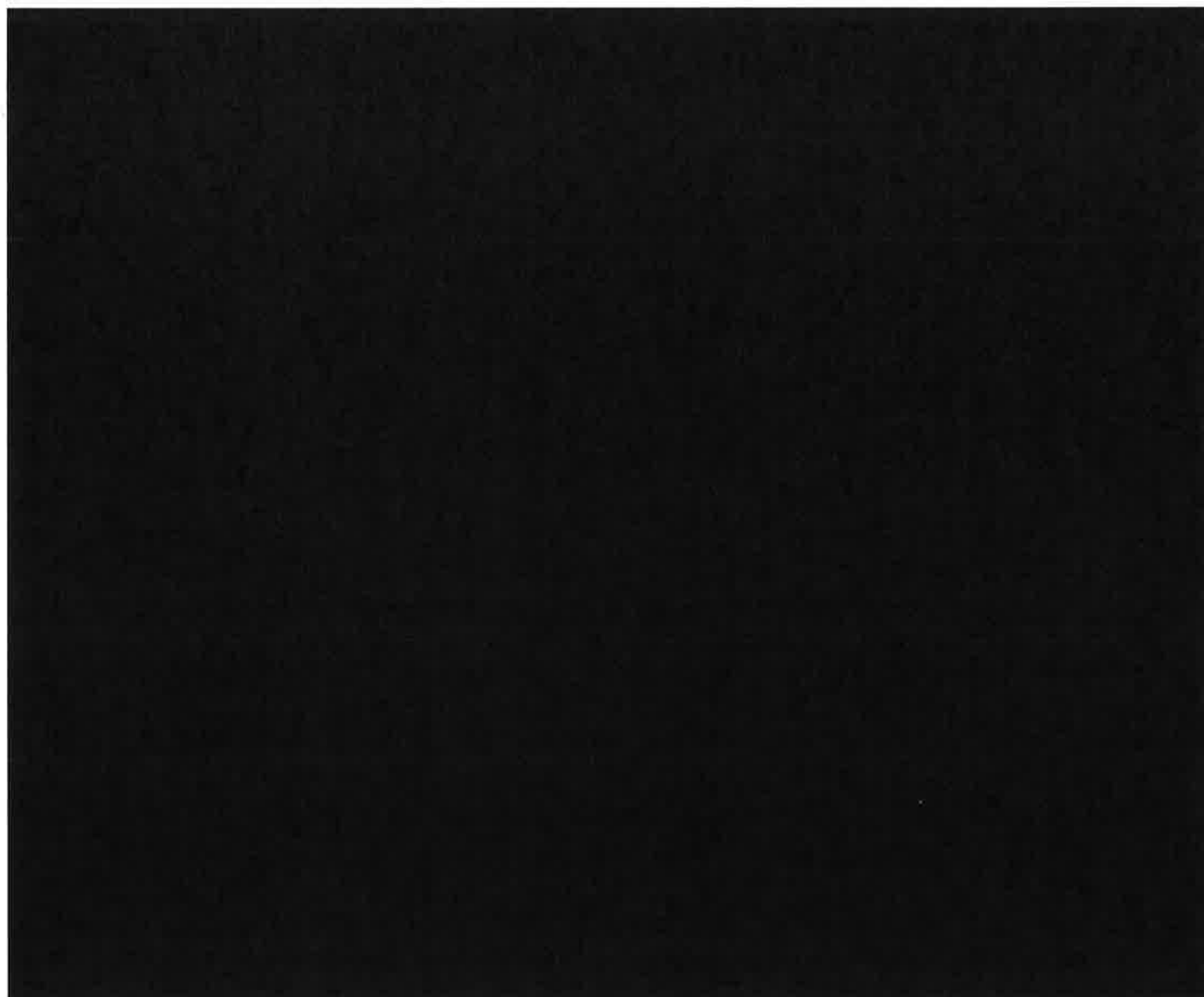


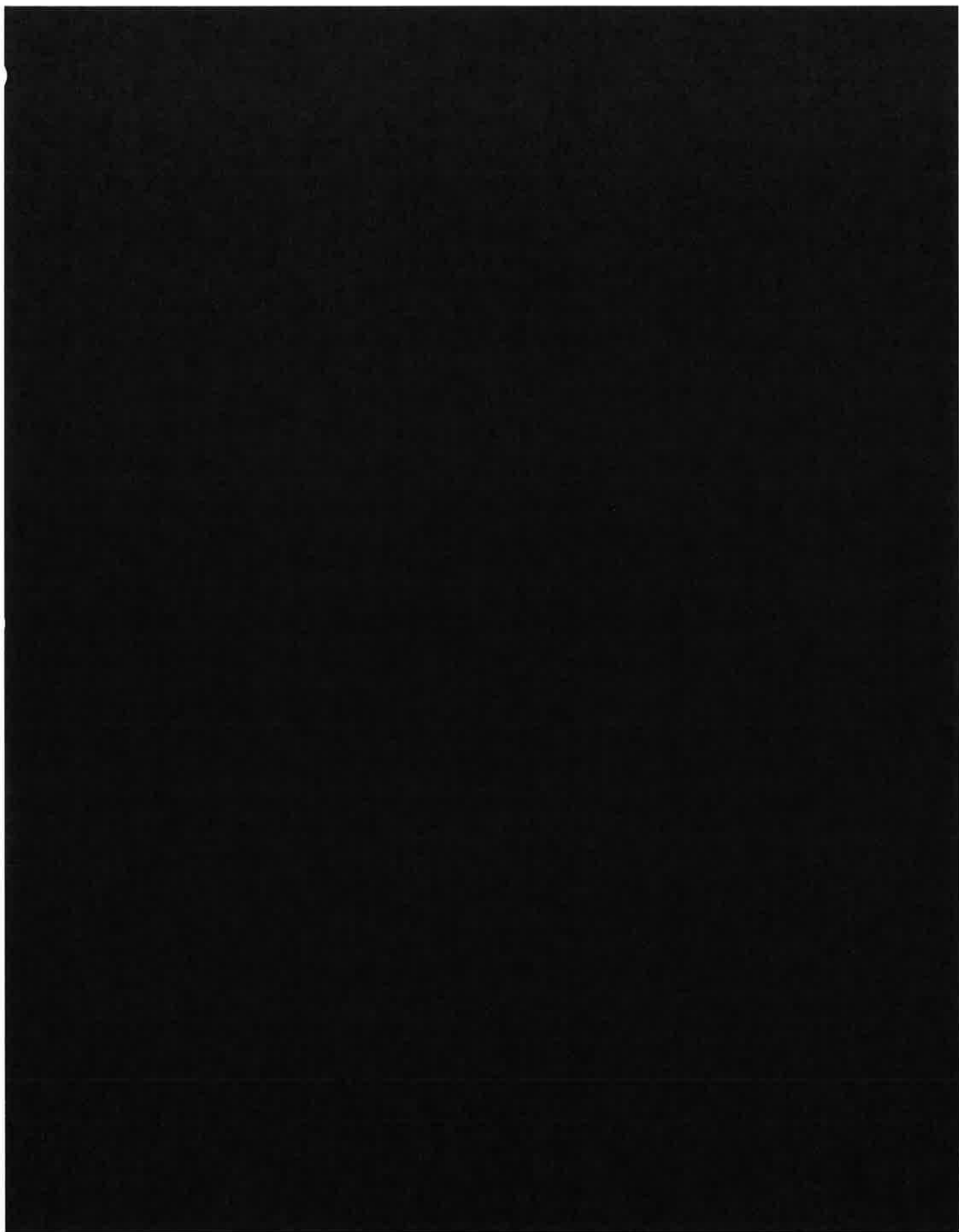


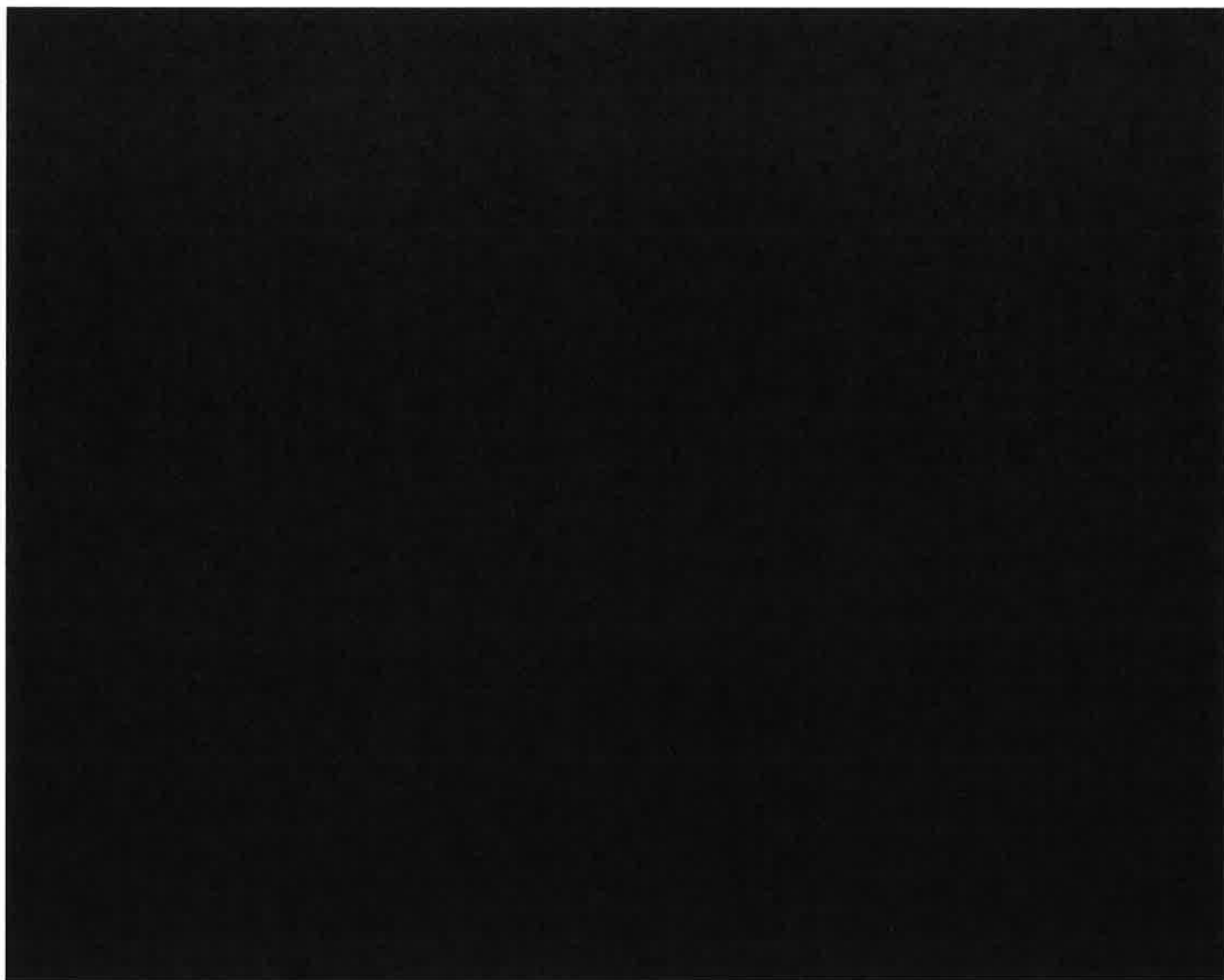


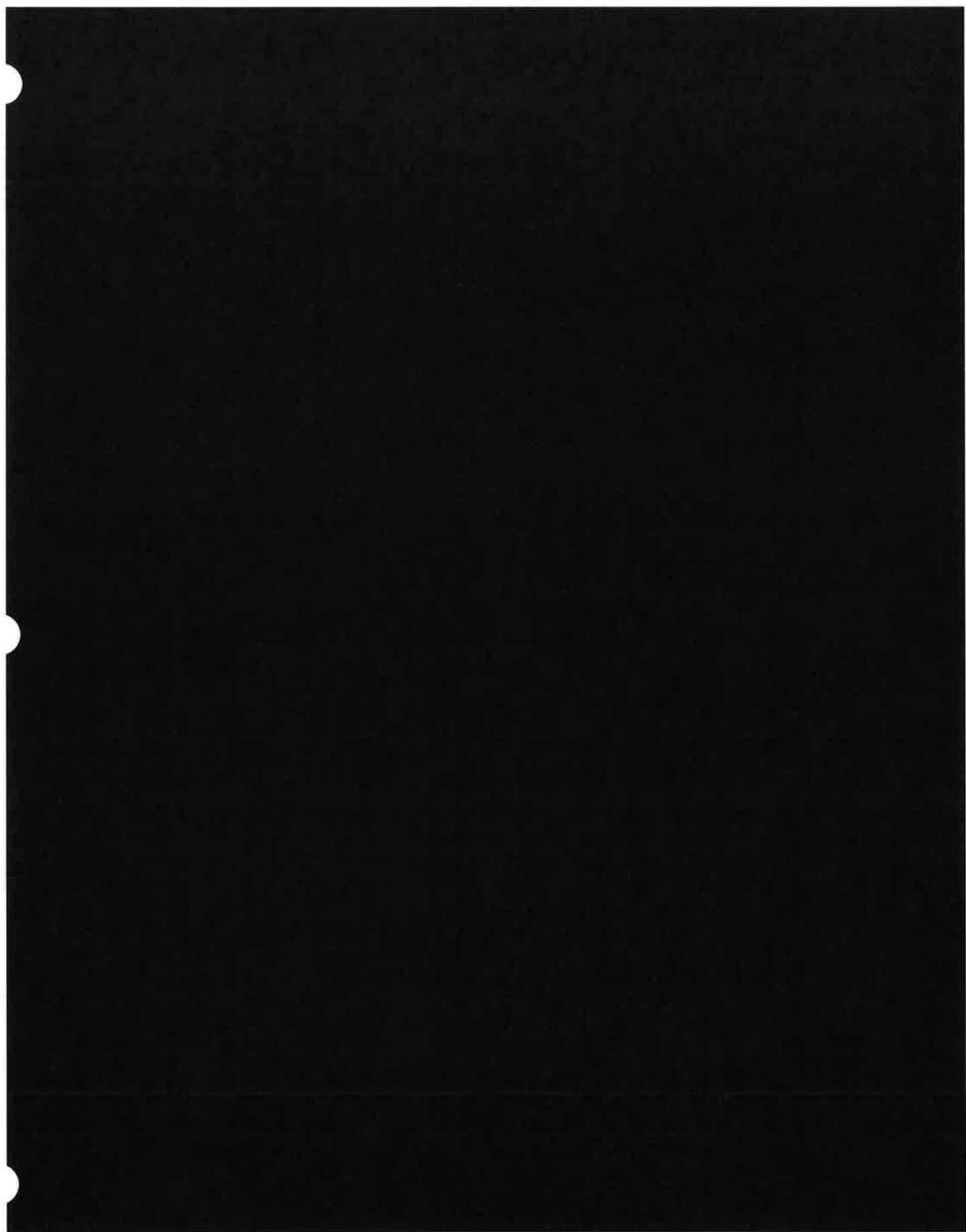




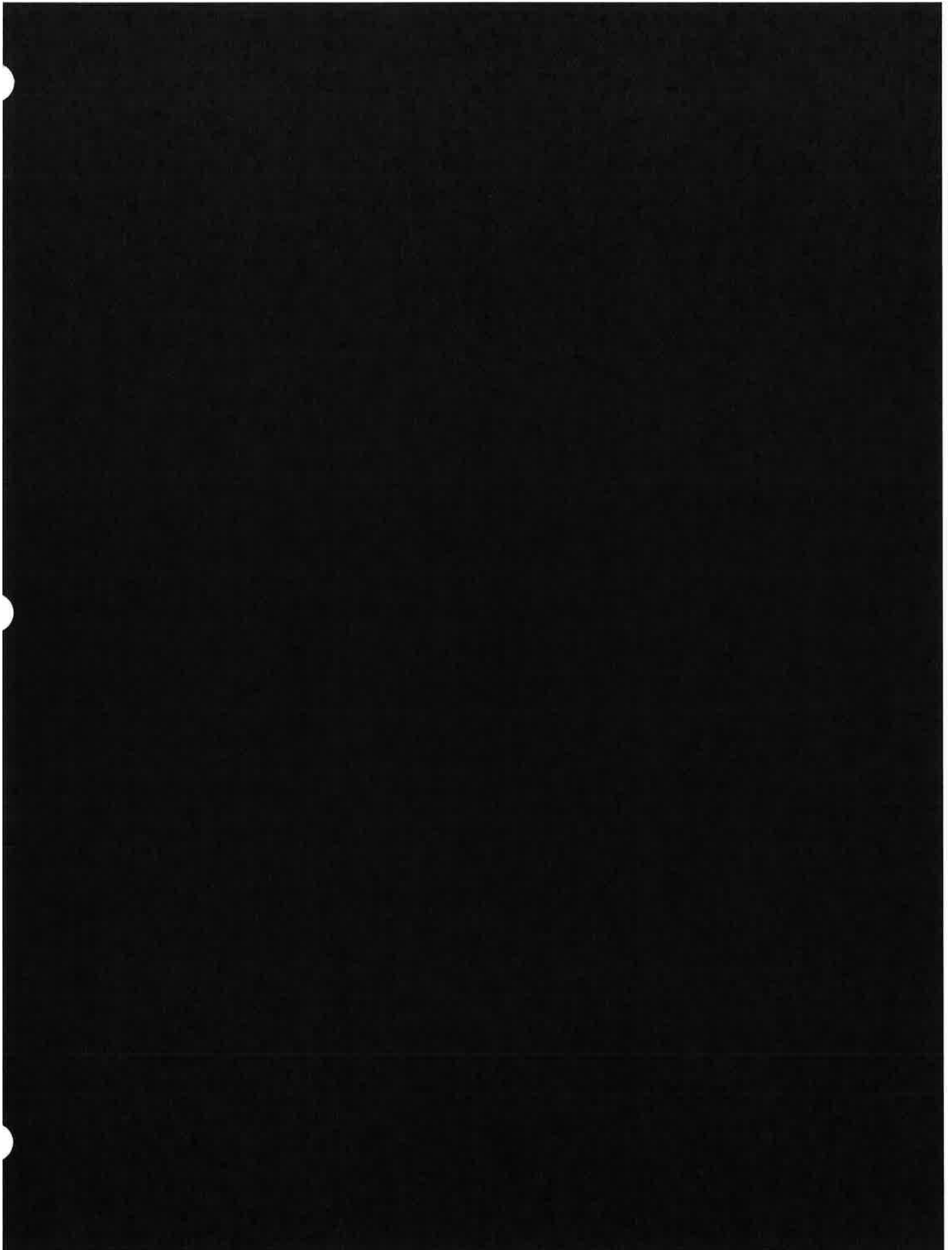


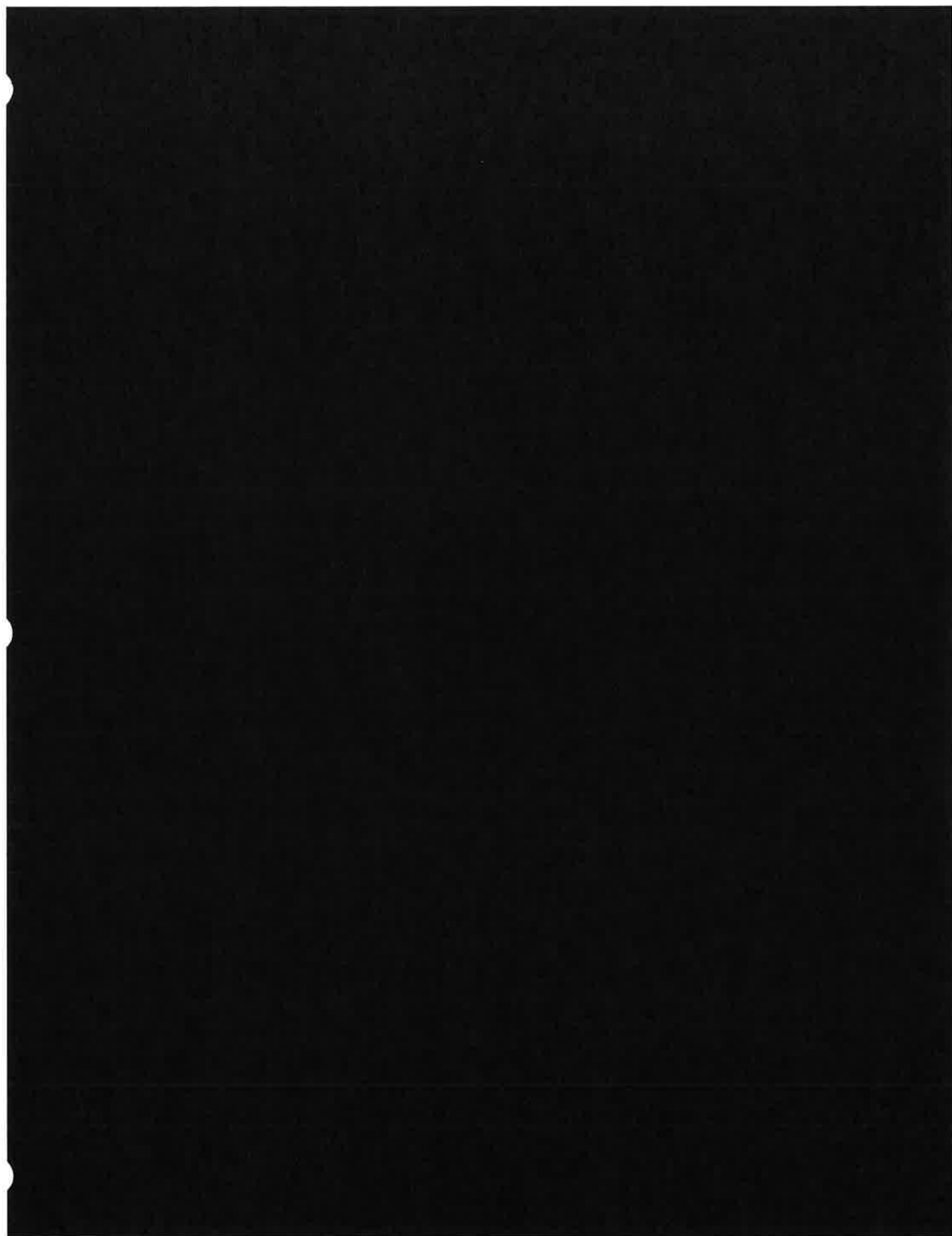


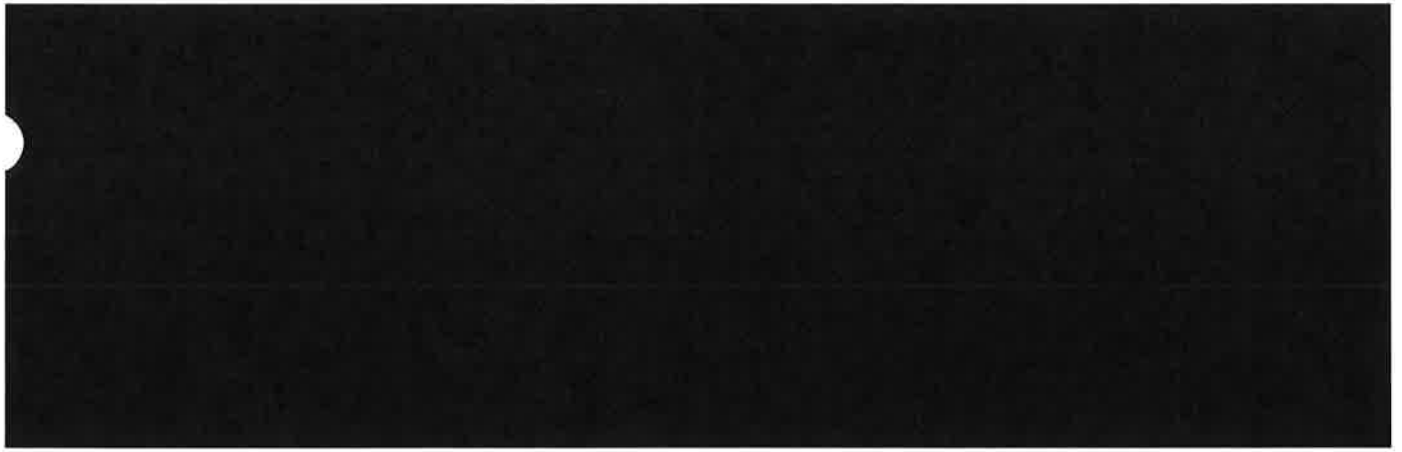


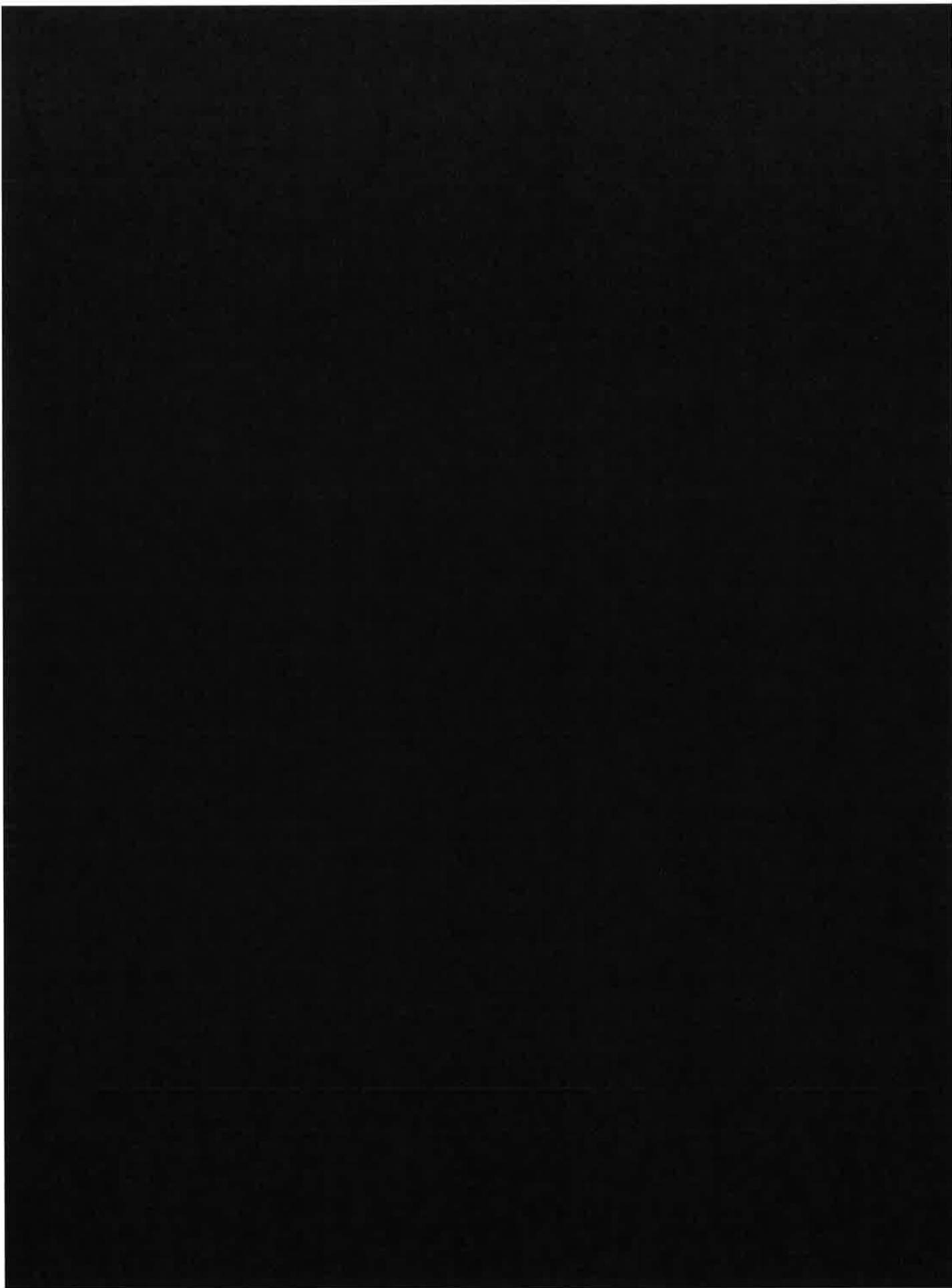


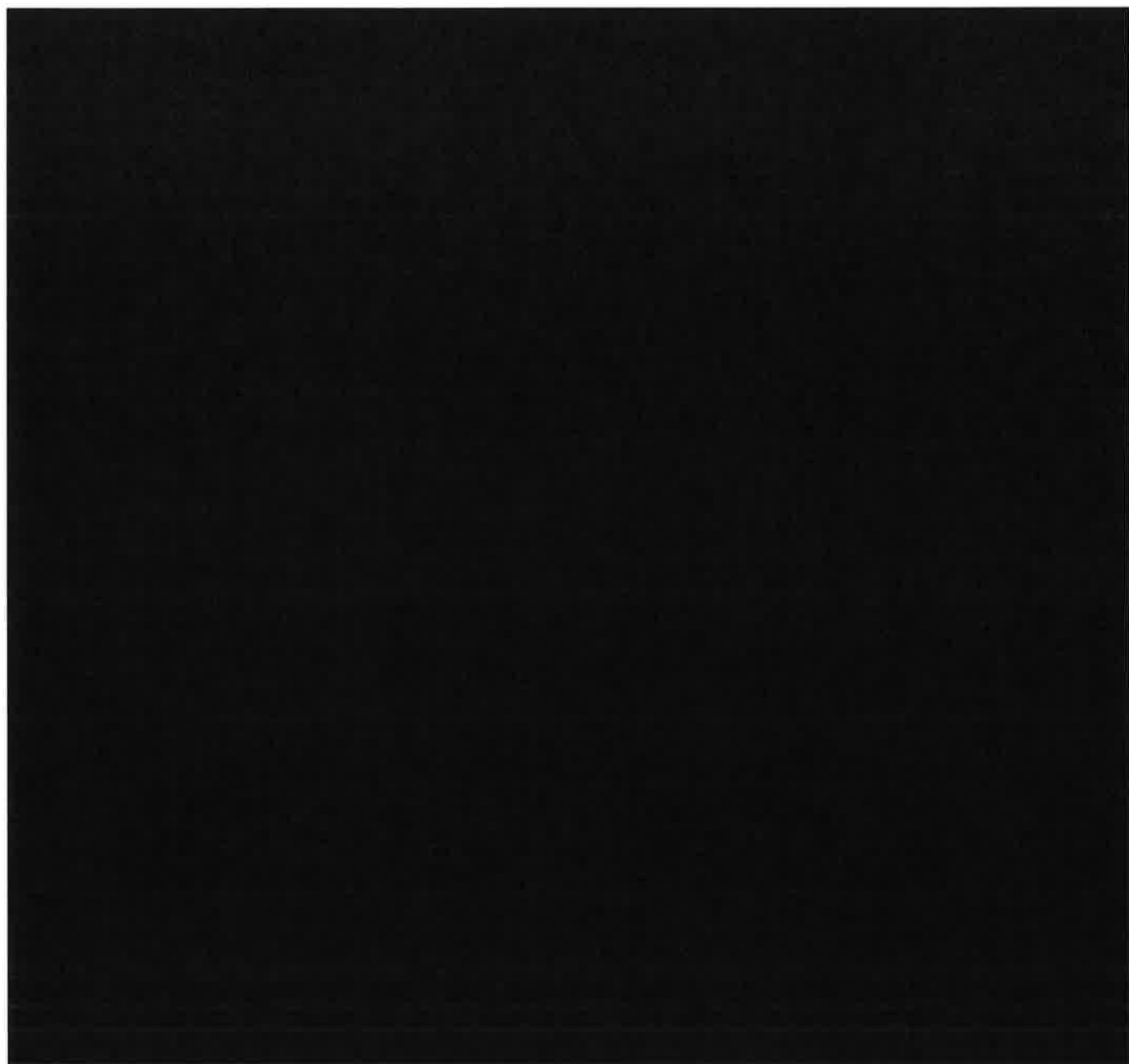


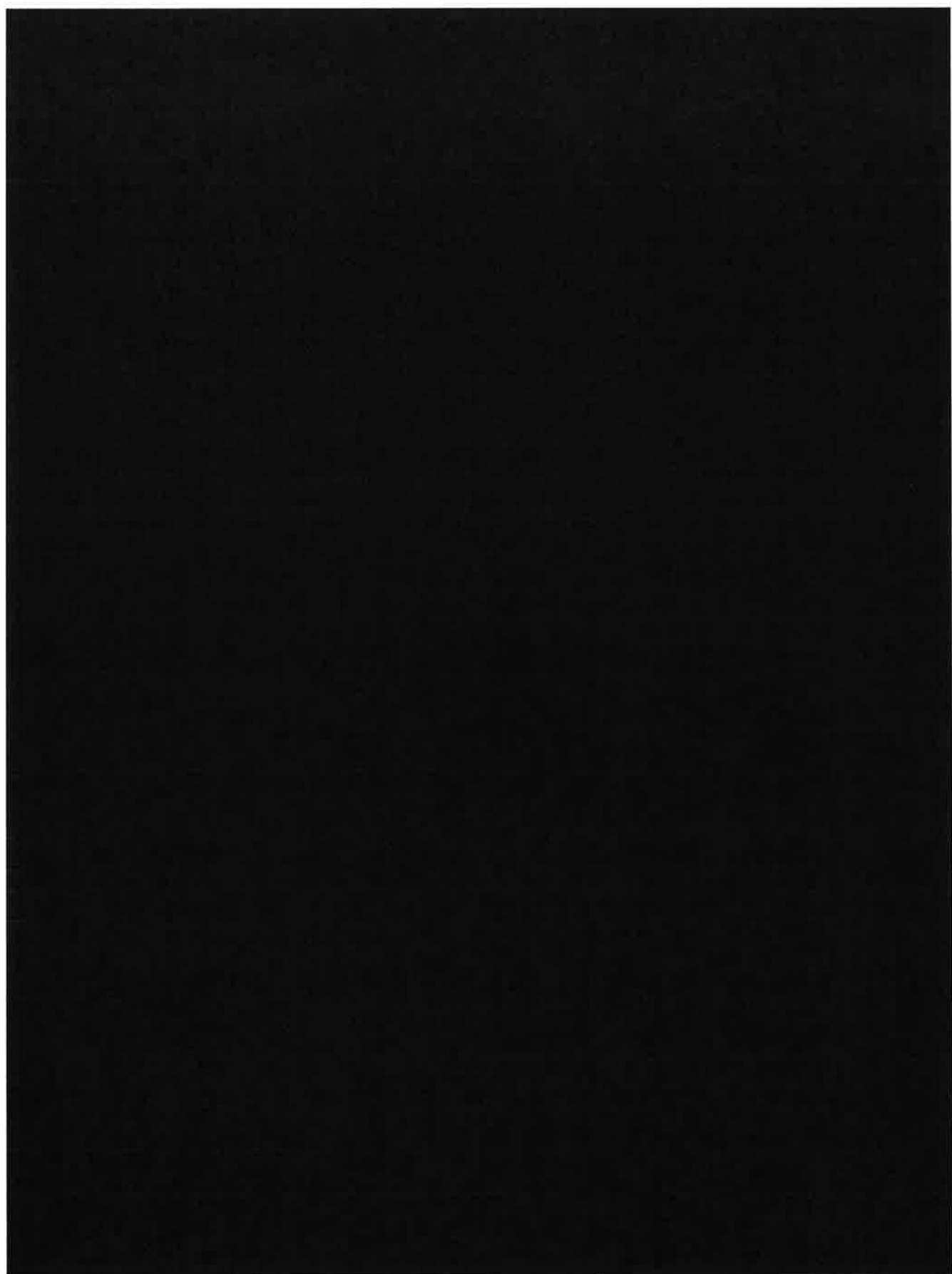


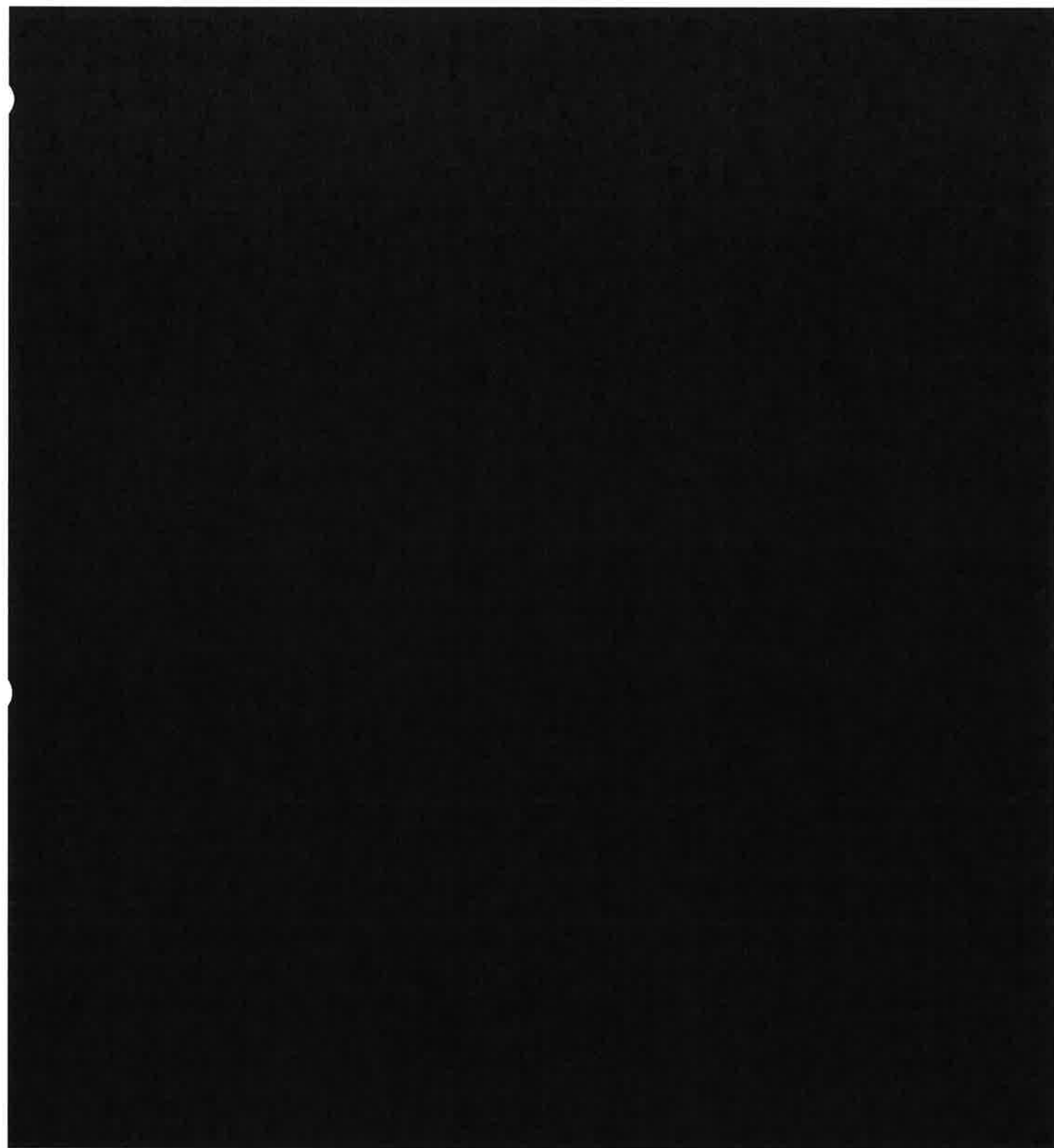


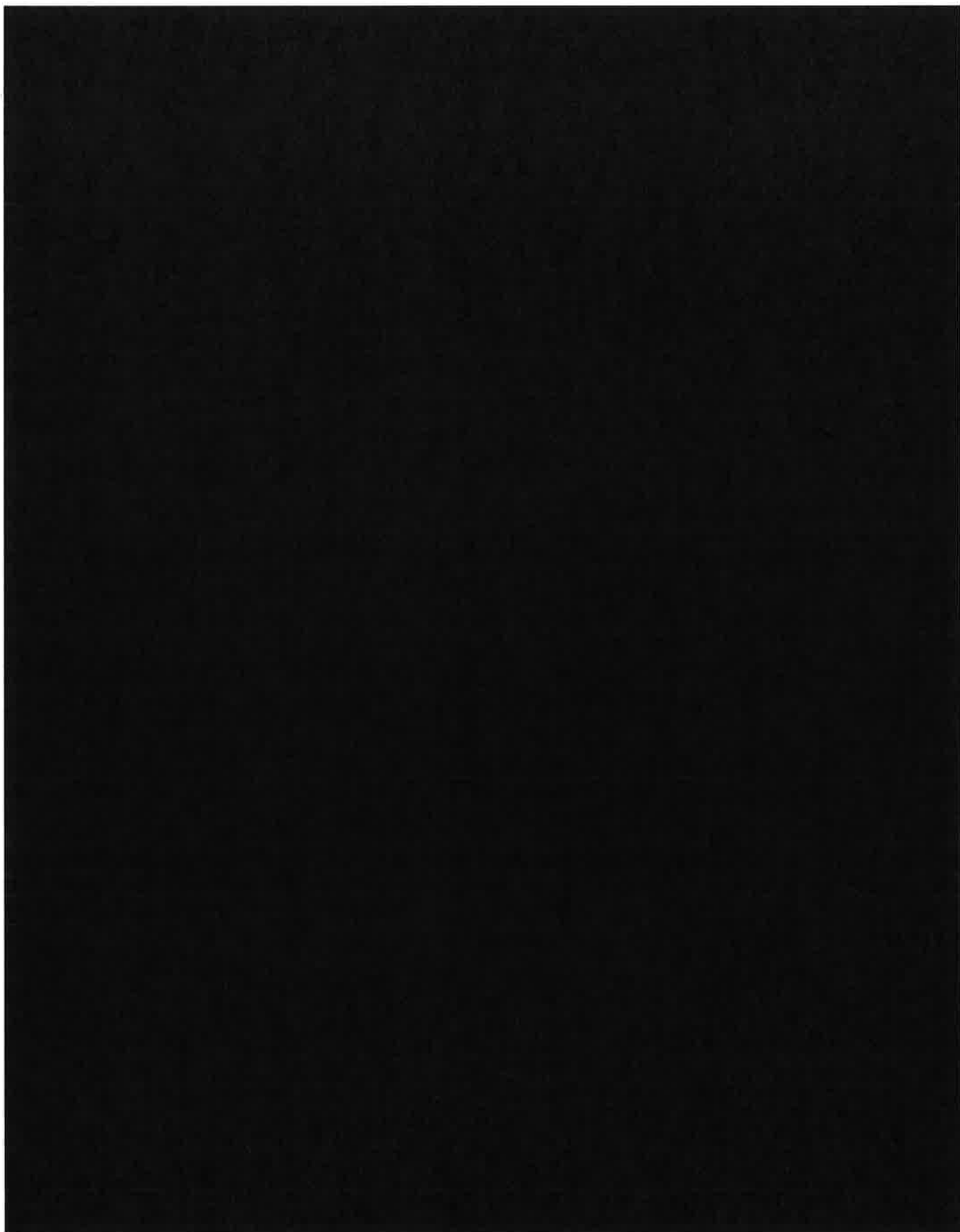


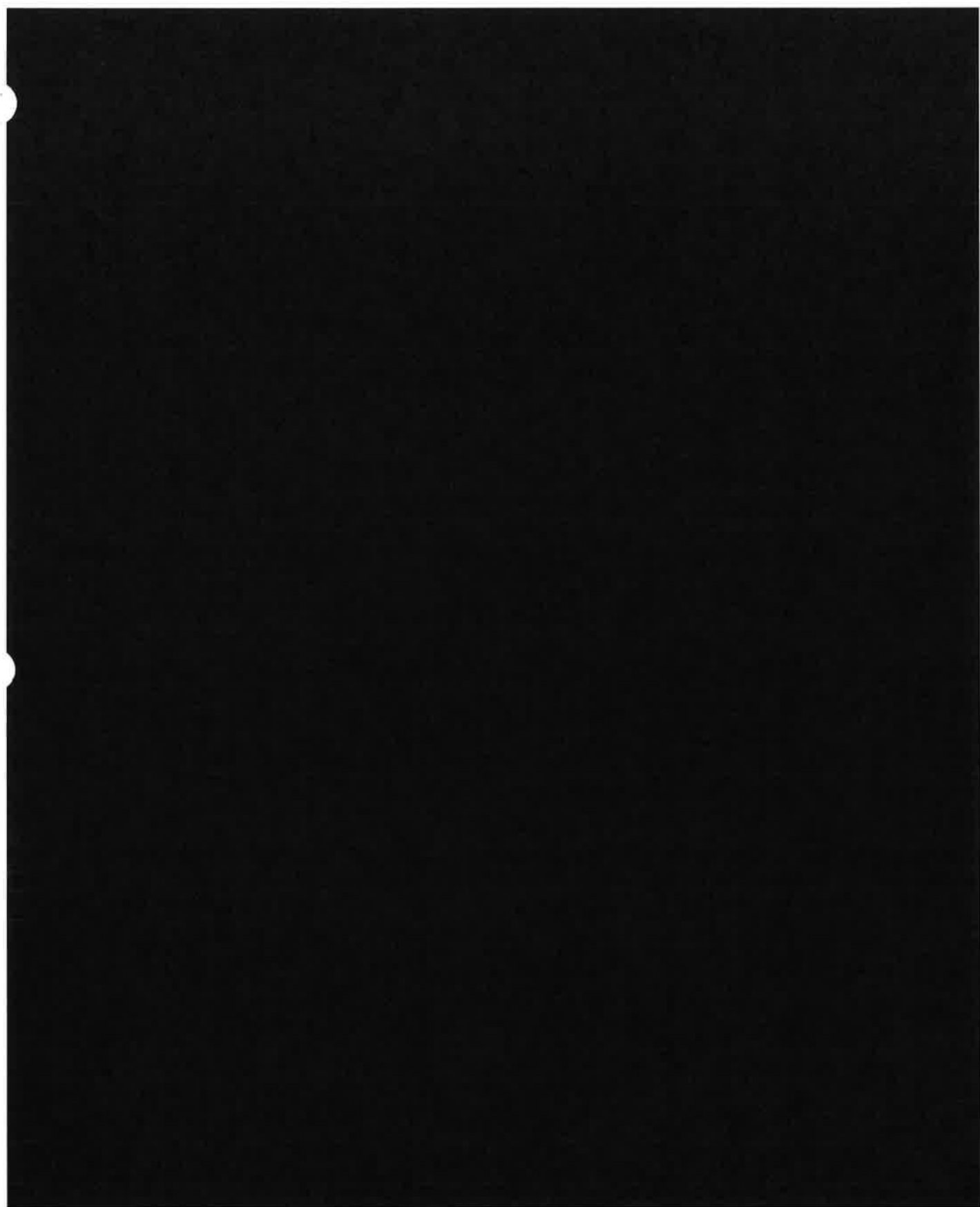


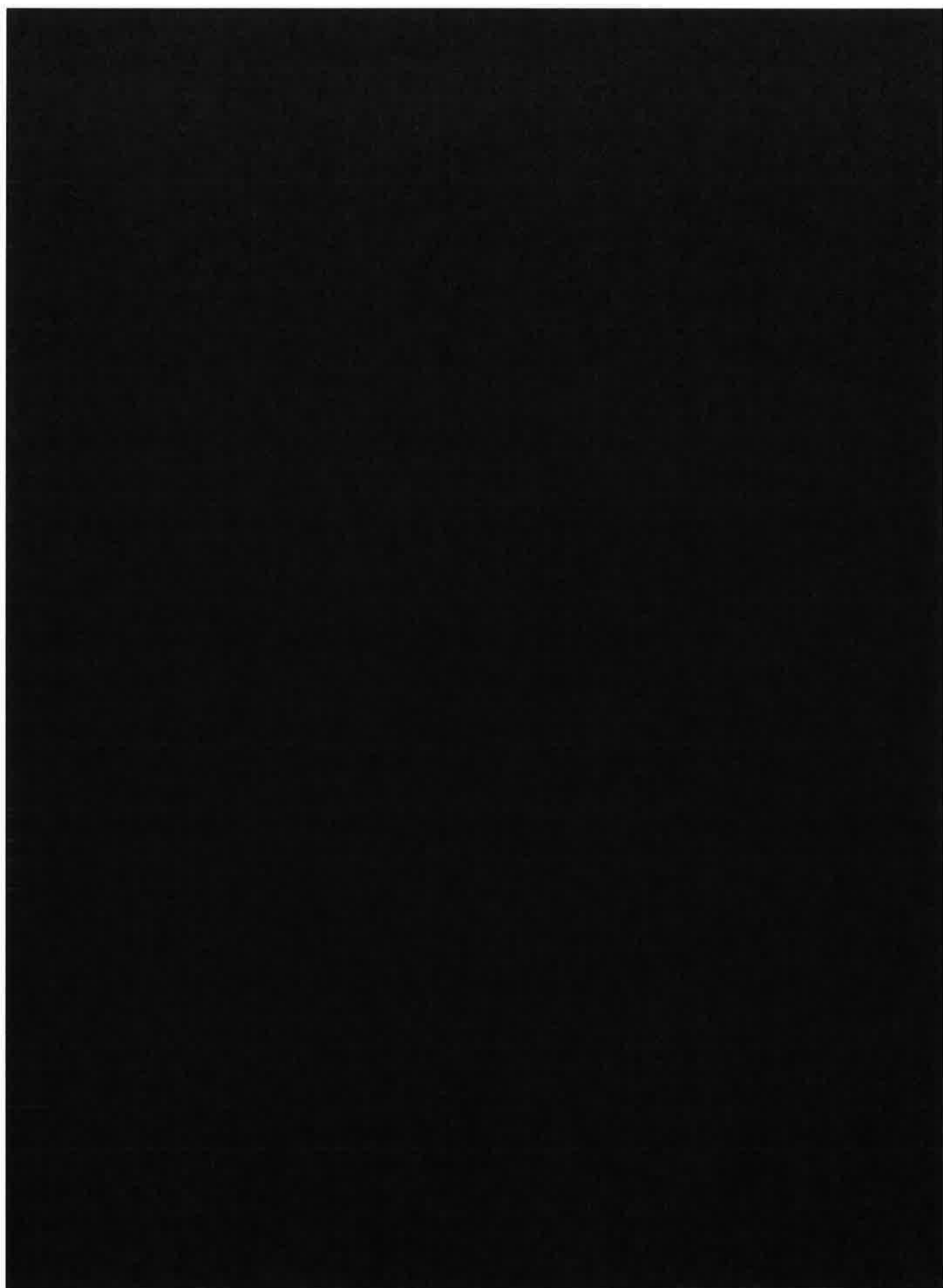




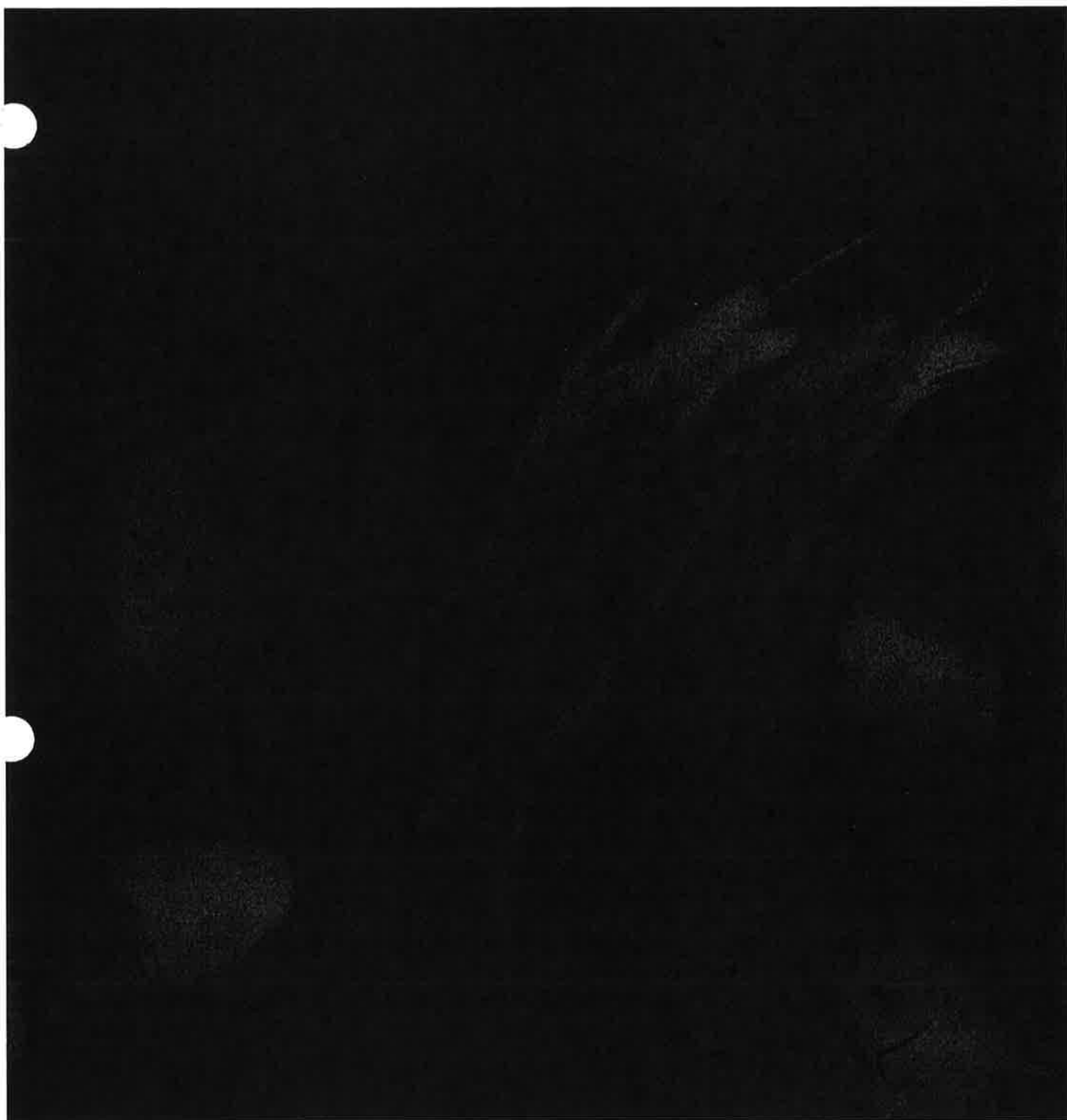


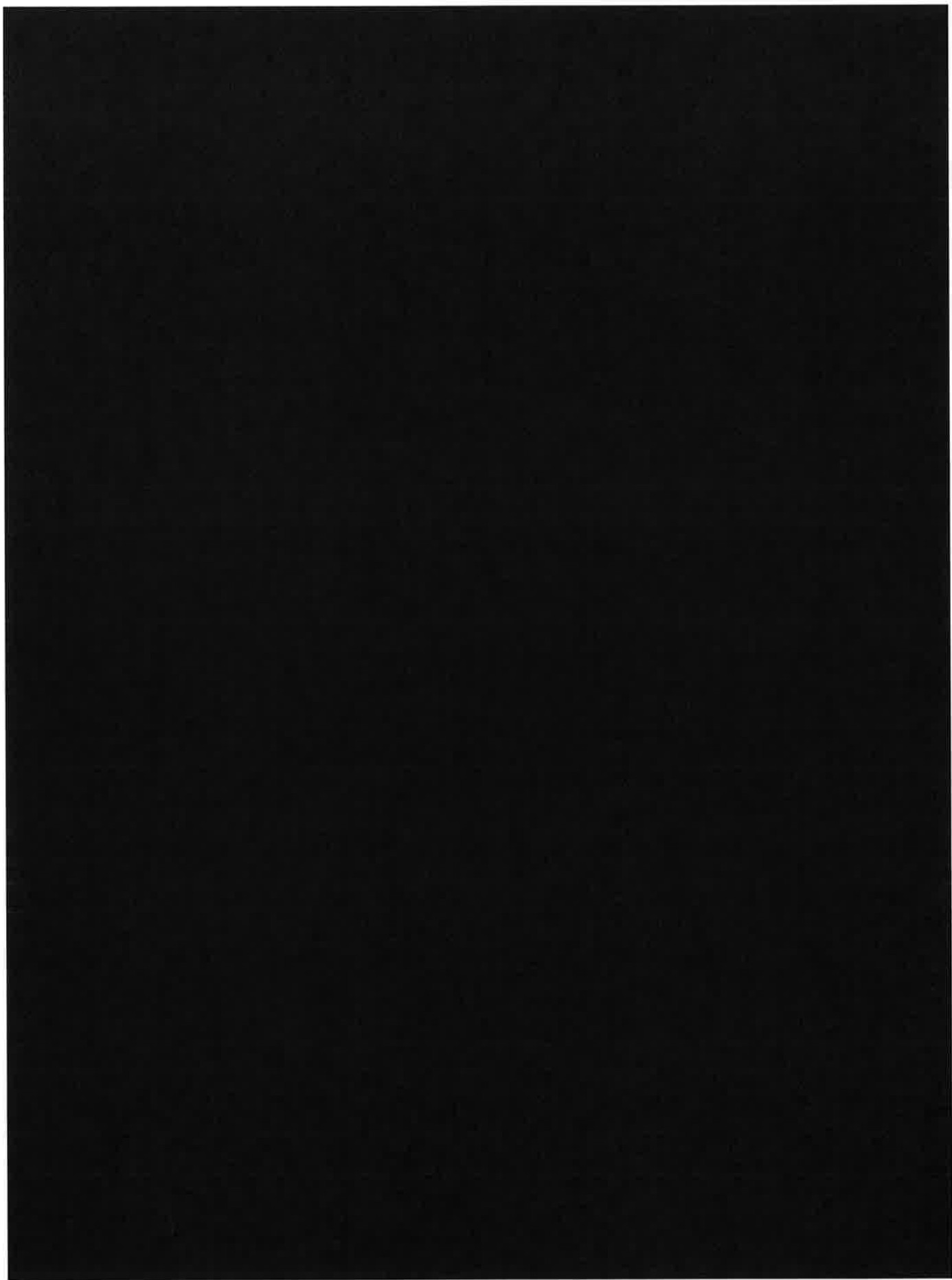


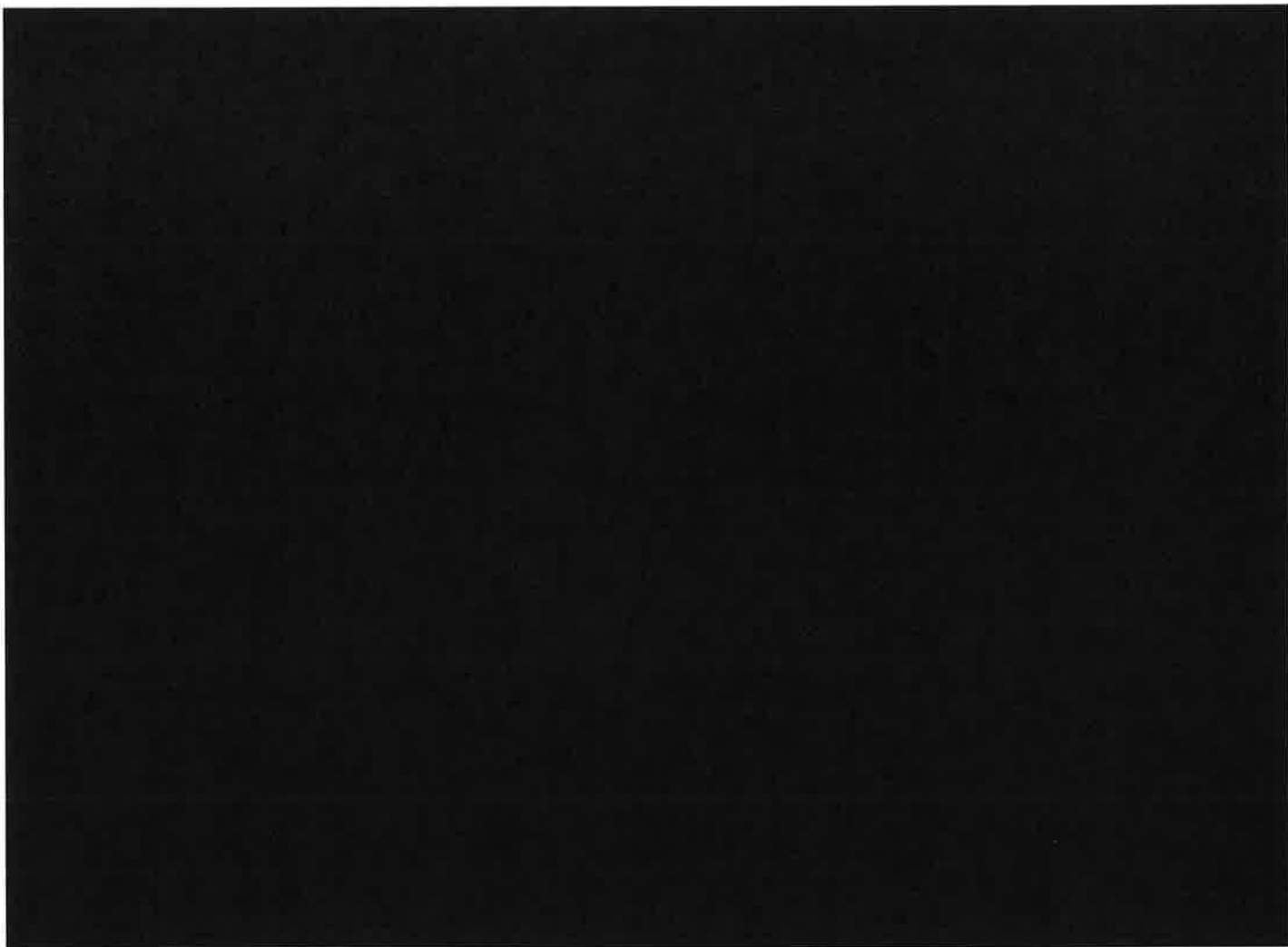


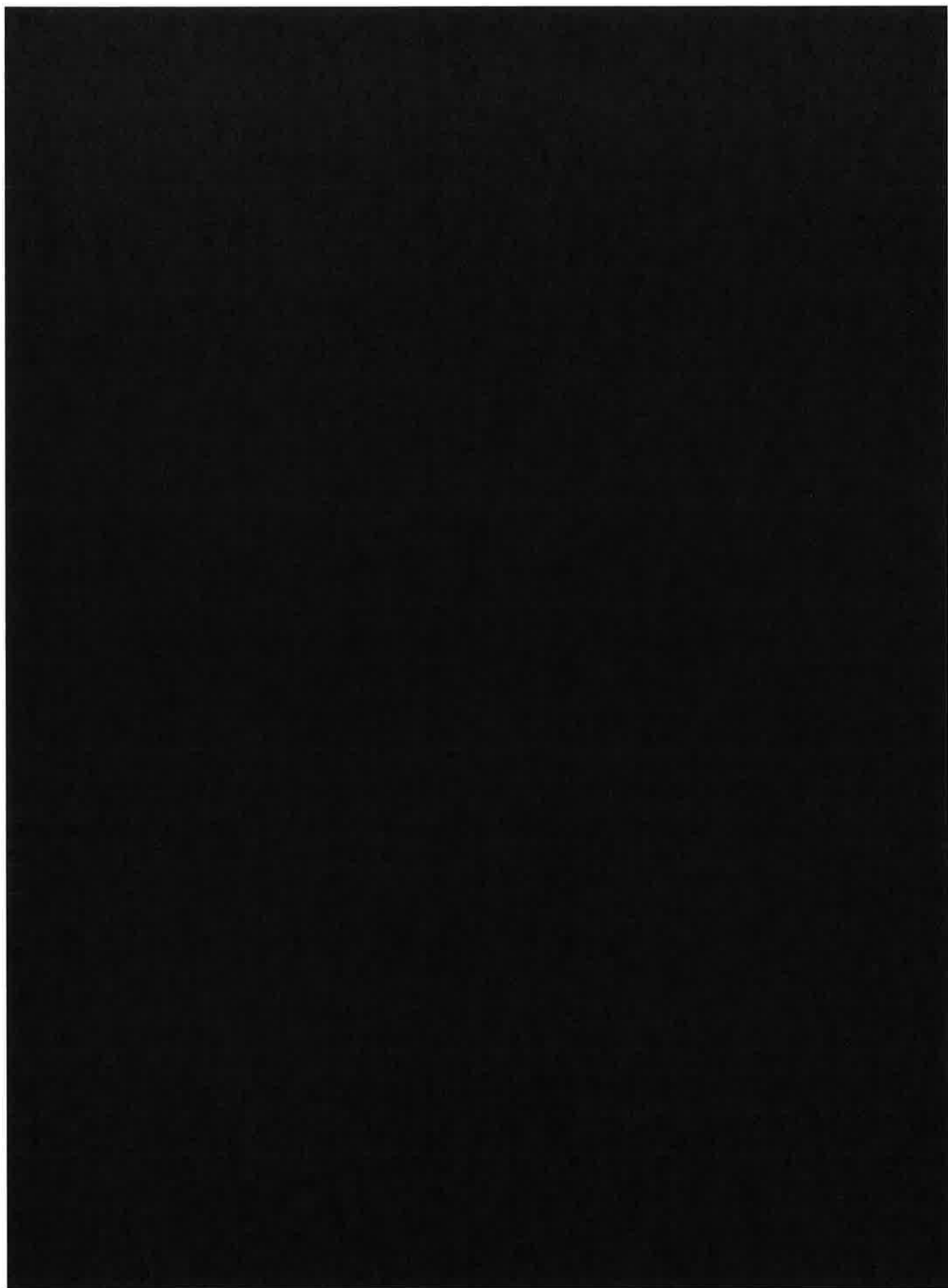


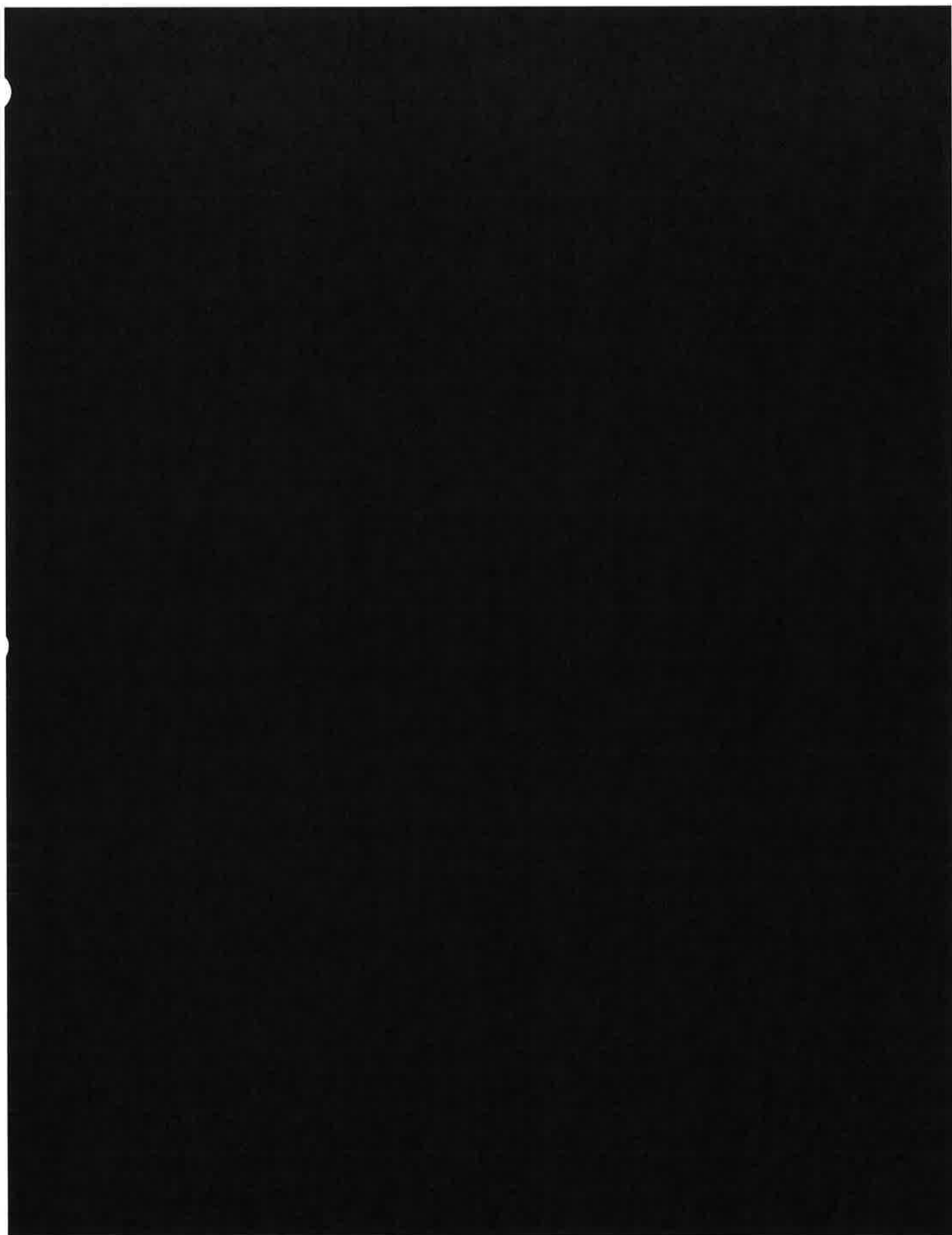


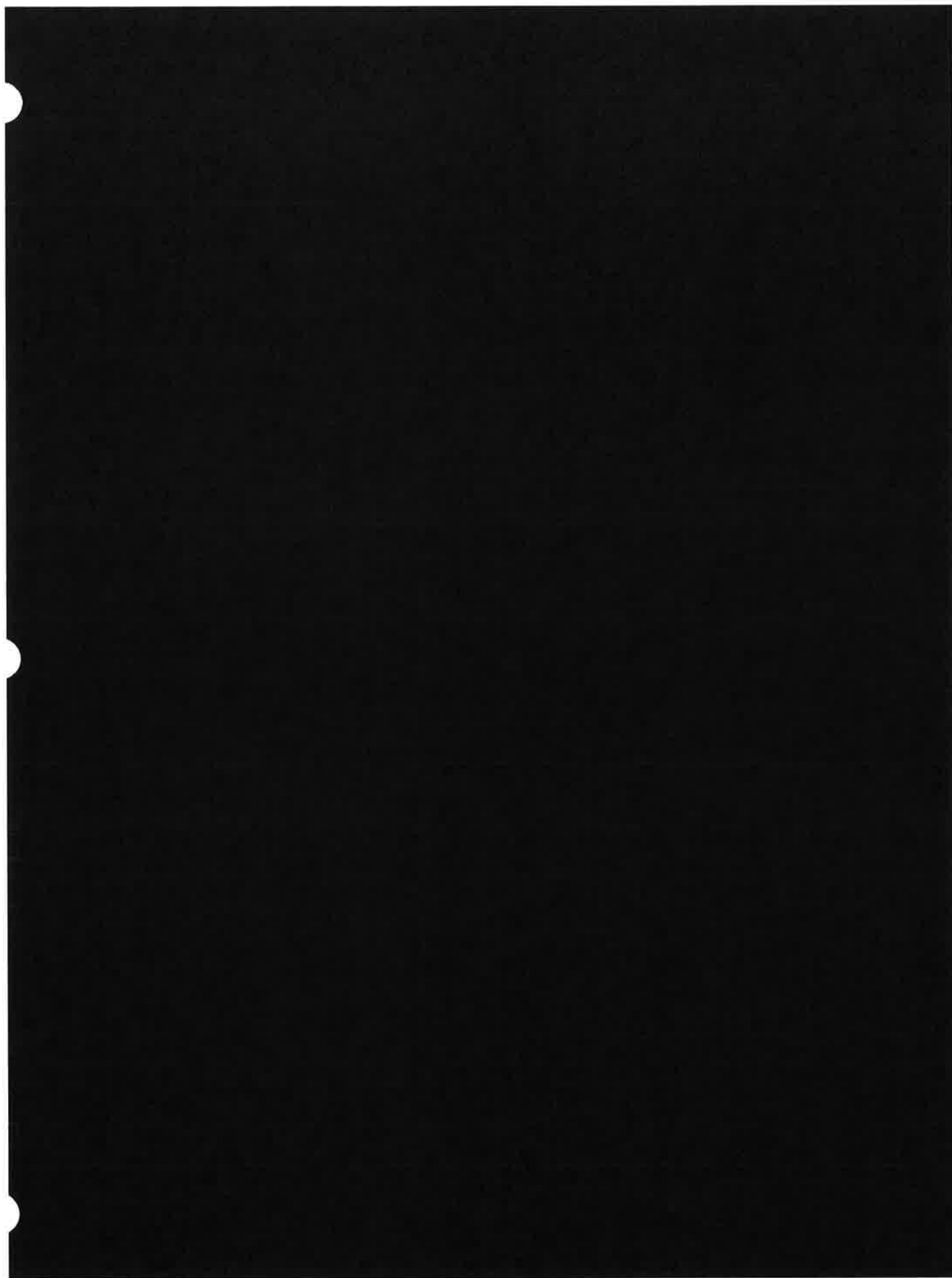


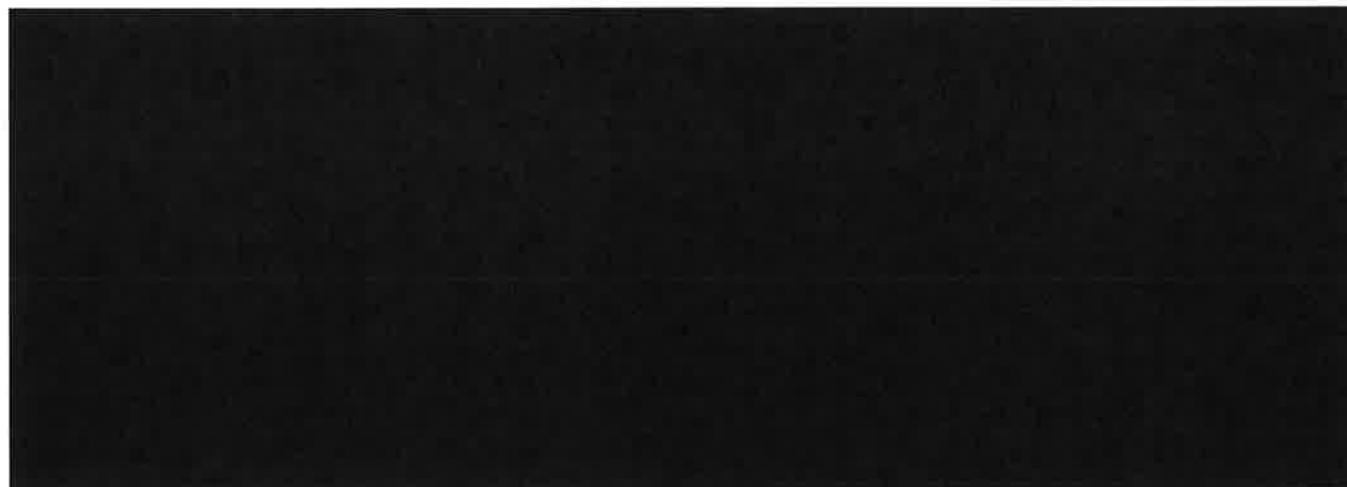


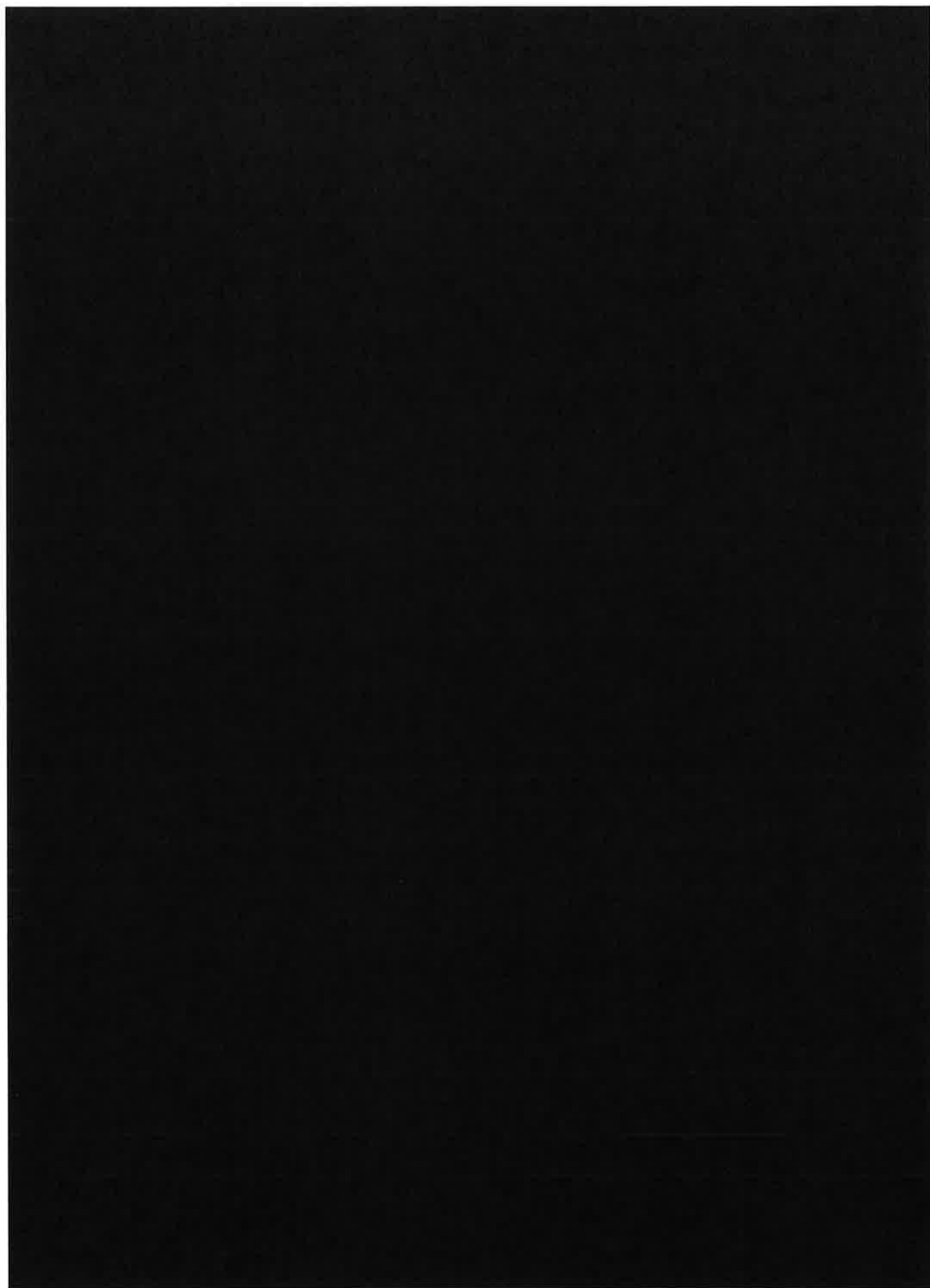












Overview of guidance related to actuarial soundness in final Medicaid managed care regulations

Brad Armstrong, FSA, MAAA
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With its publication of the final Medicaid managed care rule (final rule) in the Federal Register on May 6, 2016,¹ the Centers for Medicare and Medicaid Services (CMS) has underscored the importance of actuarial soundness in the capitation rate development process. Even in the introductory preamble to the rule, it is noted that the final rule “strengthens actuarial soundness payment provisions to promote the accountability of Medicaid managed care program rates.” CMS has devoted significant sections of the rule to the process for developing capitation rates as well as considerations for developing the individual components that comprise the capitation rate. Many of the new requirements aim to hold the Medicaid rate certification process to a level of standards and detail that is similar to what is required in commercial rate filings and Medicare Advantage bids.

In §438.4(a) of the final rule, actuarially sound rates are defined as rates that “are projected to provide for all reasonable, appropriate, and attainable costs that are required under the terms of the contract and for the operation of the MCO, PIHP, or PAHP for the time period and the population covered under the terms of the contract.” This definition is largely consistent with the prior iteration of the managed care regulations published June 14, 2002.² However, the final rule takes a much deeper dive into the capitation rate development and certification process. Some of the primary outcomes of the regulation are increases in transparency and accountability in the capitation rates, and the codification of many aspects of the process that have historically been accepted as standard practice. Additionally, several new requirements may complicate or lengthen the rate development and certification process for both the states and the health plans willing to participate in a Medicaid managed care program. This paper provides a summary of the final rule’s significant impacts on the development of actuarially sound capitation rates and required supporting documentation; it also discusses action items for states and their actuaries, along with some gray areas where the new rule may present challenges in the certification of the rates.

Significant impacts on rate development

Historically, states and their actuaries have developed Medicaid managed care capitation rates using generally accepted actuarial principles and industry guidelines outlined in resources such as Actuarial Standard of Practice (ASOP) 49, and subregulatory guidance such as the Medicaid Managed Care Rate Development Guide. Through the final rule, CMS has defined standards for certain aspects of capitation rate development, where flexibility had previously existed. The following section presents a summary of these key items.

REMOVAL OF RATE RANGES

A rate range typically represents a range of capitation rates that are certified by the actuary and allow for variations within the underlying components of the rate development. While rate ranges have been employed for a variety of reasons, the most common uses were to provide strategic flexibility to the state in varying rates for managed care organizations (MCOs) or to allow for minor adjustments to paid rates without the need to recertify the capitation rates. The ability to use rate ranges in the managed care capitation rate development provides a fair amount of latitude to states in procurement and annual bid scenarios, and enables the state to implement minor policy and program changes within the certified rate range.

Under the terms set forth in the final rule, states will no longer be allowed to utilize certified rate ranges, and instead each paid rate must be certified as actuarially sound, with sufficient detail documented in the rate certification to understand the specific data, assumptions, and methodologies behind the rate development.

To support the removal of rate ranges, CMS has indicated that the potential for significant and unknown variation in the rate ranges posed a challenge in assessing the actuarial soundness of the capitation rates. There were instances where rate certifications included a range of 6% to 10% from the low end to the high end (3% to 5% on both sides of the paid rate). CMS does not believe that rates at either end of such ranges could both reasonably be considered as actuarially sound; however, they defined a permissible range that would continue to provide flexibility to states, but within specific parameters. The final rule

<http://federalregister.gov/a/2016-09581>

Card: New Provisions Reinforce Scott Miller’s 2016 trend <https://www.cms.gov/Regulations-and-Guidance/Regulations-and-Policies/QuarterlyProviderUpdates/downloads/cms2104f.pdf>

permits a 1.5% movement in either direction from the actuarially certified rate, without notification to CMS, inherently creating an overall 3% rate range. In the Q&A section of the regulation, the selection of a 1.5% range was supported by a CMS statement that this percentage is generally not more than the risk margin that is included in a typical rate-setting process.³ Note that this variance is permitted at the capitation rate cell level and should not be evaluated in composite (paid rates within individual rate cells may not vary by more than 1.5% from the rate certification).

MINIMUM MLR CONSIDERATION

Historically, managed care plans have not been subject to a national medical loss ratio (MLR) standard for their Medicaid line of business. Unlike commercial and Medicare plans, where a minimum MLR has been a federal requirement for several years, Medicaid MCOs were only required to adhere to loss ratio standards if they were imposed at the state level, subject to each state's discretion. The final rule has instituted a requirement that certified rates must target an MLR of at least 85%. This MLR standard can be used to measure the cost-effectiveness of the managed care delivery system, but also to provide an appropriate level of quality care to enrollees. Because CMS recognizes that Medicaid managed care programs and associated policy fall under the state's purview, states are permitted to target MLRs that are higher than 85%. The federal benchmark is considered by CMS in its review of actuarial soundness of capitation rates and the state actuary is required to explain why experience for the rate-setting year will be expected to achieve at least an 85% MLR.

Many states already have minimum MLR requirements in their managed care contracts, which require a refund of the premium that causes the MLR to fall below defined thresholds. If a state chooses to employ an MLR-based refund stipulation in the contract, that threshold must also be at least 85%. While such minimum MLR thresholds are encouraged, the final rule does not require states to adopt them. Further detail of MLR standards contained in the final rule can be found in another recently released Milliman issue brief titled "Medical loss ratio (MLR) in the 'Mega Reg.'"⁴

TREATMENT OF PASS-THROUGH PAYMENTS

Pass-through payments are amounts paid to Medicaid MCOs as supplemental payments or "add-ons" to the base capitation rate. There is no risk to the MCOs for these reimbursement mechanisms, and they are required to pass through the add-on payment to designated providers, according to specific agreements between the state and the providers receiving the supplemental payments. Prior to the Medicaid managed care final rule, the inclusion of pass-through payments in the capitation

rate-setting process was not specifically regulated. Several state programs incorporated one or more of these reimbursement adjustments into the capitation rates paid to contracted Medicaid MCOs. Although this practice occurs in both the fee-for-service (FFS) and managed care environments, the ability to track the course of the pass-through payments from the state to the providers is less transparent on the managed care side. Additionally, CMS requires that states should not direct provider reimbursement under managed care except under very specific scenarios. The final rule mandates the elimination of pass-through payments in the capitation rates via a 10-year phase-out period on hospitals, a five-year phase-out period on physicians and nursing homes, and removal of other non-qualifying pass-through payments for contracts beginning on or after July 1, 2017.

Further discussion of pass-through payment guidance contained in the final rule can be found in another recently released Milliman issue brief titled "Overview of pass-through payment guidance in final Medicaid managed care regulations."⁵

DEFINED CAPITATION RATE-SETTING PROCESS

CMS-2390-F broadly outlines the steps that the actuary must take in developing capitation rates. While they do not have to be completed in any specific order, they are all required to be addressed and documented by the actuary if a certain step is not followed.

At a high level, the rate development steps are:

1. The state must provide the certifying actuary with validated encounter (or appropriate FFS) data and audited financial reports for at least the three most recent and complete data years. The actuary must select the most appropriate data (no older than three years) to use as the basis for rates and explain why it was chosen in the certification.
2. The actuary should develop and apply trend factors to the base data. The factors should be developed from actual experience of the Medicaid population or from experience of a similar population.
3. The actuary must develop a non-benefit component of the rate that accounts for reasonable expenses related to the MCO's administration, taxes, licensing and regulatory fees, contribution to reserves, risk margin, cost of capital, and other operational costs associated with providing the services covered in the program.
4. If needed, the actuary should make appropriate adjustments to the base data to account for programmatic changes, changes to the base data, non-benefit components, or any other adjustment necessary to develop actuarially sound capitation rates.

³ Please see <https://www.federalregister.gov/articles/2016/05/06/2016-09581/medicaid-and-childrens-health-insurance-program-chip-programs-medicare-managed-care-chip-delivered#h-58> for a discussion of the final rule.

⁴ Reg™ Milliman Research Report. Retrieved September 9, 2016, from <http://www.milliman.com/uploadedFiles/insight/2016/medical-loss-ratio-in-mega-reg.pdf>

Milliman White Paper. Retrieved September 9, 2016, from http://us.milliman.com/uploadedFiles/insight/2016/2232HDP_20160518.pdf

5. The actuary should review the MCOs' past MLRs when developing the capitation rates and projecting an MLR for the contract year.
6. If risk adjustment is applied, the actuary should choose a risk adjustment methodology that is generally accepted and apply it in a budget-neutral fashion across all participating MCOs in the program.

Additional information related to the rate development process and associated capitation rate certification requirements can be found in the appendix.

Gray areas: Actuarial judgment

While the new requirements highlight the transparency required in the rate-setting process, there may be instances where a significant amount of subjective decision making is still required. In the following sections, we explore some scenarios in which the new requirements may pose challenges during the rate-setting process.

NEGOTIATED RATE SITUATIONS

Currently, some states base their year-to-year capitation rates according to where each health plan bid within a range when the managed care contract was initially awarded. For instance, if Plan A bid at the very low end of the range in the bid rates, Plan A would be contracted at the low end of the rate ranges developed in subsequent rate settings; if Plan B bid at the 75th percentile between the low and high end of the range, Plan B would be contracted at that same point in future rate ranges.

With the release of the new rule, states will need to consider how to approach developing and certifying plan-by-plan rates in a bid scenario. First, although exact rates must be certified under the new rule (rather than rate ranges), the state may need to initially develop a rate range for each rate-setting analysis so that plans can be contracted at different points within the range. Second, the new rule requires that if rates differ by plan, those rates must be developed independently and in accordance with the new development and certification requirements. As a result, the actuary will need to consider how to develop and justify different rates to different plans and how to provide detail of the build-up of these rates in order to demonstrate that the rates are actuarially sound.

More discussion regarding managed care contracting alternatives and strategies were discussed in a Milliman issue brief titled "Fixed offer or competitive bid? Choosing the right Medicaid managed care contracting methodology for your state's needs," which was released in 2015.⁶

PROJECTING MLR

As part of the final rule, the actuary will be required to review past MLR experience for the contracted plans and make an adjustment to future capitation rates if the plans are reporting aggregate MLRs below the 85% target. This may require the actuary to reevaluate underlying assumptions that have been used in past rate settings; if the assumptions used in past rates were intended to target an MLR of at least 85% but the experience turned out to be lower, the actuary must determine whether these assumptions should be adjusted in order to ensure that the target MLR is actually achieved.

BASE EXPERIENCE DATA

While managed care programs have been implemented in a number of states for many years, the structure of the program within each state is rarely constant for an extended period of time. For example, the recent transition of complex populations to managed long-term care populations has introduced a population that has traditionally been served on an FFS basis. As a result, capitation rate-setting may become more challenging, based on the final rule's requirement that the past three years of data need to be assessed when this time period could involve a transition from FFS to managed care. The actuary will ultimately need to decide which portion of the historical data to utilize in establishing capitation rates.

NO CROSS-SUBSIDIZATION

The final rule requires that payments for a particular rate cell must not cross-subsidize any other rate cell. Additional guidance from CMS may provide clarification on how this requirement applies to certain components of the rate development that might not be specific to a rate cell level. For example, if a reimbursement adjustment is developed in aggregate for all children rate cells, the actuary will need to consider if the magnitude of the adjustment is appropriate for the mix of services associated with the entire spectrum of ages, such as newborns versus adolescents.

PROSPECTIVE TREND RATES

The final rule requires that trend factors used in the rate setting be "developed primarily from actual experience of the Medicaid population or from a similar population." However, in many instances, the historical trend for services can fluctuate significantly and may not be a good indicator of future trend rates. In the commentary section of the new regulation, CMS did acknowledge that prospective trends can differ materially from past trends and that the trends used in the rate should be a projection of future costs, but maintained actual experience should be a primary and important consideration. While the new rule does not prohibit the certifying actuary from consulting other sources when developing the trend factors (such as national trend projections), that actuary will have to think about how to justify the trends used in situations that differ significantly from past experience.

Additionally, the new rule states that trend factors should reflect changes in the utilization and price of services. In the commentary section of the rule, CMS clarified that the actuary does not necessarily have to set separate trend factors for utilization and price trends, but both components need to be considered before arriving at the final factors used in the rates. Because the new documentation requirements direct that the trend development be described in enough detail so that the trends can be evaluated for reasonability, the actuary will need to consider how to demonstrate that both of these components were taken into account in the trend factor development.

Action items for states

Although the implementation timing of many of the new requirements for rate development and certification uses a phased-in approach that generally corresponds with future rate-setting analyses, there are several points of the regulation that the states and their actuaries should consider now to decide whether preemptive solutions need to be developed.

TIMING OF THE RATE DEVELOPMENT

The new rule states that in order to ensure approval of rates by the effective date of the contract period, the proposed final contract and rate certification must be submitted to CMS at least 90 days prior to the beginning of the contract period. For states that require approval from CMS before rates can be paid, an appropriate rate-setting timeline should be developed so that this target submission date can be met. It should also be noted that many of the new requirements in the rule could potentially require additional resources to complete the rate-setting process, which will need to be considered when planning the rate development timeline.

BASE DATA REQUIREMENTS

The state must provide the certifying actuary with validated encounter (or appropriate FFS) data and audited financial reports for at least the three most recent and complete data years. If this requirement cannot be met, a corrective action plan must be submitted to CMS and the state must come into compliance within two years. States should begin thinking now about whether this data is available for all of their managed care programs and, if not, how this data can be obtained in a timely manner. Further detail of encounter data standards contained in the final rule can be found in another recently released Milliman issue brief titled "Encounter data standards: Implications for state Medicaid agencies and managed care entities from the final Medicaid managed care rule."⁷

MLR CONSIDERATIONS

As mentioned previously, states that impose a recoupable MLR requirement must set the threshold at 85% or higher according to the new rule. Additionally, the new rule provides guidance on how the MLR formula should be calculated, with what components should be included in the numerator and the denominator. States or their actuaries should review the MLR formula outlined in the rule and compare it with how the MLR is currently calculated in their managed care programs. Differences in the calculation could have an effect on how any current minimum MLR threshold imposed by the state translates to the implied threshold under the new MLR calculation.

PASS-THROUGH PAYMENTS

With the mandate in the new rule that pass-through payments will eventually no longer be allowed in managed care contracts, states should discuss internally and with various stakeholders how existing pass-through payments should be phased out. Although the rule provides a timeline for when certain pass-through payments must be phased out, the state may wish to switch to an alternative approach sooner and in a different manner.

DISSOLUTION OF RATE RANGES

For states that currently use rate ranges as an integral part of their rate development and contracting process (for example, if health plans initially made a bid at a point between a low and high rate range at the beginning of the contract and are paid accordingly in subsequent years), they should strategize how the new requirement of certifying a specific rate for each plan will be achieved in the current contract. One possible solution would be for the actuary to still develop a rate range behind the scenes, place each plan at a rate according to the initial bid, and then certify each rate separately. However, in doing so, the actuary will need to make sure that these certified rates are actuarially sound for each plan and that they meet the other development and documentation requirements of the new rule. Challenges may occur for the certifying actuary if an MCO makes a business decision to bid at the low end of a rate range, which may result in an expected negative underwriting gain for the contract year. Because state actuaries do not typically develop capitation rates that yield a negative margin, the certifying actuary may have to consider if higher efficiencies can be achieved by the MCO in other areas of the capitation rate to ensure that the actuarial soundness of the capitation rate bid by an MCO can be certified. Additional guidance from CMS may provide clarification on how these types of scenarios should be addressed.

Conclusions

The final rule has many implications that may affect the development of managed care rates as well as the certification and documentation of those rates. Both state Medicaid agencies and contracting MCOs will need to assess how the new requirements might affect their current certification processes and begin to identify necessary changes or new tasks to ensure compliance for future rate development within the required time frames.⁸

Appendix

RATE DEVELOPMENT AND CERTIFICATION STANDARDS

The new managed care rule details a series of steps that a state's actuary must follow when establishing Medicaid capitation rates. Additionally, it also provides guidance that states wishing to have rates approved prior to specific dates must submit proposed final contracts and rate certifications to CMS at least 90 days prior to effective dates of the contracts.

In §438.5 of the final regulation, the process and requirements for developing capitation rates are outlined, while §438.7 describes the necessary documentation that must be submitted to CMS for review and approval of the rate certification. Although many aspects of the rate-setting and certification requirements were already widely used in practice and included in subregulatory guidance, such as the Medicaid Managed Care Rate Development Guide, the new regulations codify the process and set minimum requirements.

Figure 1 on page 6 summarizes the requirements for rate development and certification by rate-setting component; however, the certifying actuary should still refer to these sections of the regulation itself for clarification on specific points.

Please see <https://www.medicaid.gov/medicaid-chip-program-information/by-topics/delivery-systems/managed-care/downloads/implementation-dates.pdf> for the required implementation dates of the



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FIGURE 1: SUMMARY OF RATE DEVELOPMENT AND CERTIFICATION REQUIREMENTS

BASE DATA	<p>State must provide certifying actuary with validated encounter (or appropriate FFS) data and audited financial reports for at least the three most recent and complete data years.</p> <p>Actuary must select the most appropriate data (no older than three years) to use as the basis for rates and explain why it was chosen in the certification.</p> <p>If the data described above is not available or usable for rate setting, the state may request an exception from CMS, but must submit a corrective action plan and come into compliance within two years.</p>
TREND	<p>Trends should be developed primarily from actual experience of the Medicaid or similar population, although other sources may be considered.</p> <p>In the certification, the actuary should include each trend factor along with enough detail that the calculation and reasonableness of each factor can be evaluated as well as an explanation of why trends differ among rate cells, service categories, and eligibility categories.</p>
NON-BENEFIT COSTS	<p>The non-benefit costs assumed in the rates must include reasonable, appropriate, and attainable expenses related to the following:</p> <ul style="list-style-type: none">- Administration- Taxes, licensing, and regulatory fees- Contribution to reserves- Risk margin- Cost of capital- Other operational costs associated with the provision of services identified in Section 438.3(c)(1)(ii) to the populations covered under the contract <p>The certification must include enough detail so that the reasonableness of each expense can be determined.</p>
OTHER DATA ADJUSTMENTS	<p>Any adjustments included in the rate setting should be developed in accordance with generally accepted actuarial principles and reasonably support one of the following:</p> <ul style="list-style-type: none">- Development of an accurate base data set- Impact of appropriate programmatic changes- Reflection of the health status of the enrolled population- Reflection of non-benefit costs <p>The documentation of the rates should include enough detail for each adjustment so that CMS or a reviewing actuary can understand and evaluate the following:</p> <ul style="list-style-type: none">- The process of developing each material adjustment and the reasonableness of that adjustment for the covered population- The cost impact of each material adjustment and the aggregate impact of nonmaterial adjustments- Where in the rate process the adjustment was applied- A list of all nonmaterial adjustments
RISK ADJUSTMENT	<p>Risk adjustment mechanisms must be developed in a budget-neutral manner, using generally accepted actuarial principles and practices.</p> <p>The certification must describe the methodology in enough detail so that CMS or a reviewing actuary can understand and evaluate the following:</p> <ul style="list-style-type: none">- The party calculating the risk adjustment- The data used to calculate the risk adjustment and any adjustments to the data- The model used to calculate the adjustment and any adjustments to the model- The method for calculating the relative risk factors and the reasonableness and appropriateness of the method- For prospective risk adjustment, the magnitude of the adjustment on each capitation rate per plan- For prospective risk adjustment, an assessment of the predictive value of the methodology compared with prior rating periods- For retrospective risk adjustment, the timing and frequency of the application of the adjustment- Any concerns that the certifying actuary has with the risk adjustment process

Encounter data standards: Implications for state Medicaid agencies and managed care entities from final Medicaid managed care rule

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A fundamental part of developing capitation rates for risk-based managed care programs is the selection and usage of historical data to be used as the base data.¹ Relative to other sources of data that may be used in developing capitation rates—summarized managed care entity (MCE) utilization and cost experience, fee-for-service data, statutory financial statements, etc.—encounter data provides the most transparent view of an MCE's provision of healthcare services. Encounter data is also the basis for many other required activities resulting from managed care programs, including risk adjustment, quality measurement, value-based purchasing, program integrity, and policy development.

However, encounter data that is incomplete, missing information, or reported incorrectly can render the data of limited use in evaluating an MCE's financial experience and delivery system performance. Recognizing that quality encounter data is imperative in creating greater transparency in Medicaid managed care programs, the Centers for Medicare and Medicaid Services (CMS) has made ensuring encounter data quality a high priority for states and MCEs. Guidance prior to the release of the final managed care rule (final rule) required an actuary certifying managed care rates to document how base experience used in the rate development process was validated for completeness, accuracy, and consistency across data sources.² The final rule provides a comprehensive modernization of Medicaid managed care rules and regulations, including addressing encounter data quality and submission

requirements in detail.³ Additionally, the final rule permits financial penalties for poor encounter data quality, in the form of withholding federal financial participation (FFP) from states that do not comply with new standards.

In this article, we summarize new regulatory requirements for Medicaid encounter data from the final rule, identify best practices for state Medicaid agencies and MCEs in the development and submission of encounter data, and envision how improvements to Medicaid managed care encounter data quality may change the industry.

Summary of regulatory requirements

The table in Figure 1 summarizes key new standards for encounter data from the final rule. We focus on five issues: provider entities required to submit encounter data, encounter data submission elements, quality control, noncompliance penalties, and the applicability period.⁴

The final rule addresses several encounter data issues that we observe frequently in our work with state Medicaid agencies and MCEs:

- **Sub-capitated providers and alternative payment arrangements.** Encounter data for sub-capitated providers, particularly for ancillary services such as nonemergency transportation, are more likely to be incomplete or inaccurate in submissions to state Medicaid agencies. The final rule makes no exceptions for encounter data associated with sub-capitated providers, which will require MCEs to work with sub-capitated entities to ensure compliance with the new requirements. Similarly, managed care systems using alternative payment arrangements, such as bundled payments or episode-based payments, are not exempt from encounter data submission requirements. While MCEs may be moving away from

Encounter data is defined by the final rule as “information relating to the receipt of any item(s) or service(s) by an enrollee under a contract between a State and an enrollee, PIHP, or PAHP that is subject to requirements of §438.242 (Health information systems) and §438.818 (Enrollee encounter data).”

¹ Phrase see <http://www.actuarialstandardsboard.org/asops/medicaid-managed-care-capitation-rate-development-and-certification/#22-base-data> for a definition of base data used in rate setting for a definition of base data used in rate setting.

² CMS (September 2015), 2016 Medicaid Managed Care Rate Development Guide, p. 4. Retrieved May 10, 2016 from <https://www.medicaid.gov/medicaid-chip-program-information/by-topics/delivery-systems/managed-care/downloads/2016-medicaid-rate-guide.pdf>

³ Medicaid.gov (April 25, 2016), Medicaid and CHIP Managed Care Final Rule. Retrieved May 10, 2016 from <https://www.medicaid.gov/medicaid-chip-program-information/by-topics/delivery-systems/managed-care/managed-care-final-rule.html>

⁴ Federal Register (May 6, 2016), Medicaid and Children's Health Insurance Program (CHIP) Programs: Mandatory Managed Care, CHIP Delivered in Managed Care, and Revisions Related to Third Party Liability. Retrieved May 10, 2016 from <https://www.federalregister.gov/articles/2016/05/06/2016-09581/medicaid-and-childrens-health-insurance-program-chip-programs-medicaid-managed-care-chip-delivered>

FIGURE 1: SUMMARY OF REGULATIONS ON ENCOUNTER DATA

Provider entities required to submit encounter data	<ul style="list-style-type: none"> Encounter data standards apply to all MCEs and to all services furnished to enrollees, including sub-capitated providers (providers who are paid by the MCE on a capitated basis). Data must be submitted regardless of provider payment methodology, including value-based purchasing. Encounter data standards apply to all managed care programs, including managed long-term services and supports (MLTSS) programs.
Encounter data submission elements	<ul style="list-style-type: none"> States are required to submit validated encounter data to CMS in a standardized format in a "complete, timely, and accurate" manner. Encounter data elements, required for submission to Medicaid Statistical Information System (MSIS)/Transformed Medicaid Statistical Information System (T-MSIS),⁴ include but are not limited to: <ul style="list-style-type: none"> Enrollee and rendering provider information Service procedure and diagnosis codes Allowed, paid, cost-sharing, and third-party liability amounts Service, claim submission, adjudication, and payment dates
Quality control	<ul style="list-style-type: none"> States must review and validate MCE encounter data for accuracy and completeness both when it is received from an MCE and again prior to submitting to CMS, including conducting an independent audit at least every three years on the accuracy, truthfulness, and completeness of encounter data submitted by each MCE. As part of their monitoring systems, states must use audited financial and encounter data to improve the performance of their managed care programs. As part of the annual report provided to CMS for each managed care program administered by a state, the state must document encounter data reporting for each MCE. Validation of MCE-reported encounter data is a mandatory External Quality Review (EQR) activity. EQR means the analysis and evaluation of aggregated information on quality, timeliness, and access to the healthcare services that an MCE or its contractors furnish to Medicaid beneficiaries.
Noncompliance penalties	<ul style="list-style-type: none"> CMS will review each monthly encounter data submission for accuracy. FFP may be deferred or disallowed if the data is not complete, accurate, or timely.⁵ A state will have a reasonable opportunity to make corrections to a data submission that does not initially receive CMS approval. FFP will be withheld in proportion to capitation payment attributable to service type or enrollee group with noncompliant data. For example, if 10% of a capitation payment was attributable to noncompliant data, then 10% of FFP would be withheld or deferred.
Applicability period	<ul style="list-style-type: none"> The new requirements in section §438.242, which requires states to submit complete and accurate encounter data to CMS, will apply to state contracts with MCEs beginning on or after July 1, 2017. CMS will withhold FFP if states are not in compliance with the final rule for contracts beginning on or after July 1, 2018.

fee-for-service provider reimbursement, this does not negate the need for complete and accurate encounter data reporting.

- Variance in state encounter data quality processes.** The current capabilities of state Medicaid programs in evaluating encounter data quality vary significantly, with some states having already established processes and internal expertise to monitor and assess encounter data quality, while other

states are just now developing encounter data quality protocols (many of these differences may be a result of when risk-based managed care was implemented in the state). CMS requirements in the final rule will incentivize, through noncompliance penalties, all state Medicaid managed care programs to submit data in a standardized format, which should aid CMS in evaluating the efficiency and operation of managed care delivery systems across the country. Likewise, MCEs should anticipate additional oversight, monitoring, and noncompliance penalties associated with their collection and submission of encounter data to state Medicaid agencies.

Please see https://www.macpac.gov/wp-content/uploads/2015/01/Update_on_Medicaid_and_CHIP_Data_for_Policy_Analysis_and_Program_Accountability.pdf on 168 for more information related to T-MSIS and its relationship to MSIS.

4. CMS, "MSIS Data Submission Requirements," <https://www.cms.gov/medicaid-data/msis>, accessed 1/11/2017.

- **State innovation in encounter data quality improvement.** While CMS will require data encounter data submitted in a standardized format, it does not define how states will validate if encounter data is complete and accurate prior to submission. In the comment section of the final rule, it states: *“Many states have been developing procedures and protocols to ensure that their data is complete and accurate, including evaluating the value of submitted claims against the managed care plan’s general ledger, random sampling of claims within managed care plans’ systems, and other types of reconciliation. States have found that performing validation activity on a monthly or quarterly basis has improved the data collection efforts. We support and encourage states’ efforts to improve encounter data. CMS anticipates continuing to work with states and to publish guidance and best practices based on states’ experiences.”* We believe the final rule provides states with the flexibility to develop customized solutions that fit the unique characteristics of their managed care programs for monitoring encounter data quality.
- **Standardized data elements.** The completeness or inclusion of data fields contained historically in Medicaid encounter data may vary by state, managed care program, MCE, and service type. For example, the completion of the paid amount field within an encounter data set may be limited for sub-capitated services. By mandating specified data fields for each encounter data submission, CMS will further facilitate data analytics between MCEs within a managed care program, as well as the evaluation of overall delivery system performance across states and populations.

With encounter data submission requirements becoming effective July 1, 2017, states, MCEs, and their business partners will need to increase focus and rigor in managing encounter data processes to avoid penalties or sanctions in the near future.

Key Sections of Final Rule Addressing Encounter Data Quality and Reporting

- §438.66 – State monitoring requirements
- §438.242 – Health information systems
- §438.358 – Activities related to external quality review
- §438.818 – Enrollee encounter data

Administrative best practices for encounter data management and submission

With CMS’s increased focus on encounter data accuracy and completeness, adopting sound administrative management practices will undoubtedly assume greater prominence for both states and MCEs. States in particular are becoming both receivers and submitters of encounter data and will need to

ensure that “downstream” entities are prepared to support this highly visible CMS requirement and that their internal processes result in compliant encounter data submissions to CMS. In our consulting work with states and MCEs nationally, we have identified a set of administrative “best practices” for encounter data management and submission. They are outlined below.

STATE MEDICAID AGENCIES

Best practice state Medicaid agencies work to develop clear and consistent guidelines for encounter data reporting and monitoring, including the following:

- **Documentation.** Provide detailed, up-to-date encounter submission guides and companion documents as the foundation of a successful submission process.
- **Contract.** Incorporate clear reconciliation processes, remediation timelines, penalties, and remedies in MCE contracts. As the final rule establishes a mechanism to withhold FFP from states with encounter data quality issues, making sure MCEs have a vested financial interest in complying with encounter data submission requirements becomes even more imperative.
- **Communication.** Establish clear routine and nonroutine communication protocols, including meetings of both a technical and business owner nature.
- **Time frames.** Develop clear parameters and timelines for processing encounter data submissions, reporting errors or failures, and processes for correction.
- **Validation.** Although CMS and state validation methods are not yet clearly defined, states can begin to develop practices that will enable them to conduct file validation on multiple dimensions and adapt their practices as guidance evolves. For example, technical validation can ensure that headers and trailers are accurate, and logical validation may include checking that the claim does not include improper data, such as a paid date before the service date, and a procedural validation processes check for issues such as non-covered procedures.
- **Reconciliation with audited financial reports.** The final rule requires that audited financial reports be submitted by managed care entities specific to the Medicaid contract on an annual basis. Expenditures reported in the encounter data should be reconciled with each MCE’s financial report to identify potential gaps in encounter data reporting.
- **Testing.** Develop and implement testing and quality acceptance protocols for all new plan data submissions and for all plans when the state or CMS changes a submission rule or when technical submission requirements are modified.
- **Data integrity.** Maintain original data elements and a comprehensive data architecture and dictionary throughout each stage of the validation process to allow the state and

MCEs to reconcile all interim data sets, if needed; and routinely provide the finalized encounter data to MCEs for agreement on a “source of truth” for contractual measurement purposes.

- **Monitoring.** Produce internal dashboard reports for state management, and potentially external dashboards for MCE review. Dashboards may track encounter volumes and error volumes, and trend data elements month-to-month and year-to-year.
- **Web-based reporting tools.** With the availability of web-based reporting tools with drill-down capabilities, state Medicaid agencies and their MCE vendors can drill down into specific issues that are identified through dashboard reporting.

MEDICAID MANAGED CARE ENTITIES

Best practice MCEs strive to create quality encounter data as early in the data collection process as possible. Factors that may drive improvements in the data collection process include:

- **Ownership.** Establish ownership and accountability in a formal manner. Best practice organizations establish strong cross-functional teams to support the encounter data process.
- **Financial reconciliation.** Conduct routine financial reconciliation of encounter data submissions to the plan's general ledger because of the impact of encounter data on risk adjustment and premium revenue. If submitted encounter data does not include dollar amounts (e.g., in capitated arrangements), establish protocols to assign prices based on Medicaid fee schedules or other standardized pricing.
- **Collaboration.** Work collaboratively with state officials to influence encounter submission specifications. Partner with other MCEs to ensure that specifications make sense.
- **Provider and vendor data.** Ensure that provider and vendor contracts require timely and high-quality submission of claims and encounters. Provide problem resolution and feedback on encounter submission issues to providers and vendors. As CMS has increased focus on data quality concurrent with an expansion of new provider types who must submit data (e.g., MLTSS providers), managing vendors and delegates has taken on new importance for MCEs.
- **Information systems architecture.** Incorporate encounter data collection, management, and submission requirements into overarching system architecture and design. Invest in technology enhancements to support new and emerging requirements.
- **Technical processes.** Create a technical infrastructure to support encounter submission processing and quality review. Audit encounter submissions before submission, to identify issues up front.

- **Quality improvement.** Put a data quality improvement process in place to continually improve all data within the organization. Ensure that encounter submission errors are tracked and aggregated and that patterns are reviewed as sources for potential data quality improvements.
- **Documentation.** Ensure that processes are well documented and teams fully staffed, and that cross-training has occurred so processes are not reliant on a small number of staff.
- **Monitoring.** Ensure that encounter submission processes are tracked and metrics are available throughout the organization, that completeness is reviewed by comparing encounters with financial reports, that timeliness and error rates are tracked, and that risk adjustment results are constantly monitored to ensure that encounters reflect accurate health risk (as applicable).

While many state agencies and MCEs have adopted some, or even many, of these practices, in our experience even large sophisticated organizations are still evolving and refining their operations to optimally support encounter data processing requirements.

The impact of enhanced encounter data on Medicaid managed care

The final rule addresses a number of topics, including: transparency in the MCE rate development process, quality measurement and improvement, and delivery system reform. At the center of these issues is the ability for stakeholders to have a clear picture of the services, costs, and quality associated with providing healthcare to Medicaid beneficiaries. This can only be done with complete and accurate encounter data. We believe the encounter data requirements in the final rule will lead to a more data-driven environment in Medicaid managed care, with the following key outcomes:

- **Rate development process.** Encounter data will serve as the base experience in the rate development process for established managed care programs. State Medicaid agencies will have greater insight into MCE performance through evaluating encounter data with managed care efficiency and quality measures. Improvements to encounter data reporting for services associated with sub-capitated and alternative payment arrangements will facilitate greater visibility into clinical and financial outcomes associated with such arrangements.

- **CMS comparison of state managed care programs.** With the establishment of standardized encounter data sets across the country, CMS will be able to better evaluate the performance of Medicaid managed care programs across states. This will aid CMS in ranking state performance based on standardized quality and managed care efficiency measures. In particular, it will assist in measuring the impact of Section 1115 demonstrations and other innovative health policies. It may be possible that CMS will employ more technical measures in measuring the cost-effectiveness of managed care programs across states.

Encounter data requirements in the final rule reflect significant changes with important ramifications for states, MCOs, and business partners. Prudent organizations should examine their current capabilities in relation to the new CMS requirements and take action to identify and remediate issues that might impact their ability to meet the new requirements.

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Fixed offer or competitive bid?

Choosing the right Medicaid managed care contracting methodology for your state's needs

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Tom Arnold, Ikaso Consulting



Medicaid managed care programs have grown significantly during the past five years, with more than 35 states providing healthcare benefits, partially or fully, in risk-based managed care plans. Using a review of statutory annual statements, the Medicaid revenue to risk-based managed care plans has grown from approximately \$48.1 billion in calendar-year 2009 to \$83.7 billion in calendar-year 2013, which represents an annual increase of nearly 15%.¹

Along with this increase in revenue comes a huge increase in the number of covered lives. Beginning in calendar year 2014, many states enrolled the newly eligible populations under the Patient Protection and Affordable Care Act (ACA) into managed care programs. These individuals—many of whom have had scant or no insurance coverage in the past—must suddenly be integrated into a large and complex healthcare system without breaking that system.

The pressure on state Medicaid agencies to deliver high-quality care at an affordable cost is intense—and they must consider the long-term stability of their Medicaid programs through changes in population, cost trends, and care practices.

How Medicaid contracts are awarded to managed care plans can have a significant impact on how well they support certain strategic outcomes—and can have unintended consequences if agencies do not carefully consider their specific markets and regulatory realities.

Broadly speaking, states tend to choose one of two methods to establish capitation rates: Either the states set the rates and plans accept or reject them, or plans are allowed to bid on the rates in a competitive environment. To choose the right approach, states need to know not only *what* the methods are but *why* they should favor one or the other.

The nuts and bolts

Capitation rates paid to Medicaid managed care programs must be certified as actuarially sound under federal law.² The certification must be performed by a qualified actuary who is a member of the American Academy of Actuaries. The certification states that the rates are appropriate for the populations served and the benefits covered

by the contract. However, the capitation rates are generally not certified to be appropriate for any one individual health plan. Rather, the capitation rates are certified as appropriate and attainable, in aggregate, for the health plans contracting within the state.

In addition to meeting technical qualifications, the contract with the plans may use one of two methods for determining the actual capitation rate paid to plans. The following provides a brief description of the two capitation rate methods utilized in the contracts between state Medicaid agencies and the managed care plans.

- **State-established capitation rate:** Under this contracting method, the state's actuary establishes a single capitation rate or capitation rate range. The state determines the value within the range or the single rate that will be offered to the managed care plans. The managed care plan may accept or reject the offered capitation rate—or, in some cases, may have an opportunity to negotiate the rate.
- **Competitive bid capitation rate:** Under this contracting method, the state's actuary establishes a capitation rate range. The capitation rate range may be shared fully or individually at one end of the range or the other with the managed care plans. The managed care plans will then provide a bid rate. The bid rate will ultimately need to fall within the state's actuary's certified rate range.

Procurement considerations to meet program objectives

Each contracting method sets certain forces in play, which can have different outcomes depending on the initial conditions and the state's goals for the Medicaid managed care program. In light of these factors, some of the major objectives and considerations for a new managed care procurement process as it relates to the capitation

1 Palmer, J.D. & Pettit, C.T. (June 2014). Medicaid Risk Based Managed Care: Analysis of Financial Results for 2013. Milliman Research Report. Retrieved February 19, 2015, from <http://us.milliman.com/insight/2014/Medicaid-risk-based-managed-care-Analysis-of-financial-results-for-2013/>.
2 See federal regulation 42 CFR 438.6(c).

rate component of the contract are outlined below. When reviewing the procurement considerations, the decision process would vary depending on the Medicaid population and rate setting scenario, as generalized by the following three scenarios.

1. New population with no experience data
2. New population with historical experience (e.g., fee-for-service conversion)
3. Managed care organization (MCO) renewal

Managing the number of plans in the marketplace: The number of eligible health plans currently in the market may determine how the state contracts with the health plans for a capitation rate. If the state would like to reduce the number of plans currently under contract, it can limit the number of slots available for winning bids. This can be more challenging in a fixed offer situation in which there are fewer factors to evaluate when distinguishing between plans.

Managing costs: States can choose to offer to enroll a greater percentage of auto-assigned lives to health plans that have the lowest bid. An auto-assigned life is a Medicaid member that did not choose a health plan at time of enrollment. Because members who are auto-assigned to a health plan often have lower morbidity than members who choose a health plan, this can incentivize health plans to develop lower-cost approaches for these populations while still maintaining the financial health of the plan. In other words, a state may be able to avoid overpaying for populations that inherently cost less to manage. The advantage of auto-assigned lives may be mitigated through the use of risk adjustment.

Other incentives that may be used in a competitive bid scenario which support the objective of managing costs include:

- Lower contracted medical loss ratio for lower bids
- Single MCO award for small rural counties
- Allowing a best-and-final buy-in for an MCO that is not one of the lowest bidding plans

Cost and budget certainty is also a consideration for states as capitation rates have become a larger percentage of Medicaid budgets. Under the state-set capitation rate scenario, the state would have a better understanding of the level of the capitation rate expenditures in a future period. The competitive bid rate scenario provides a greater unknown until the capitation rates are submitted and evaluated through the bid process.

Onboarding new populations: In developing the capitation rates, an actuary generally utilizes historical data to establish baseline utilization, cost per service, and overall per-member-per-month (PMPM) expenditures. If the managed care program is for a new population, the state's actuary may have limited data and information to establish the capitation rates. The limited data creates greater risk and uncertainty for the health plans and the state Medicaid agency. The greater risk and uncertainty should be considered and may not be appropriate for a competitive bid contracting method. If health plans base their assumptions on inappropriate comparable

populations, they are more likely to misjudge the actual risk involved, creating an unsustainable situation.

Minimizing procurement and contract management complexity:

Choosing a health plan through the public procurement process can be a costly and time-consuming exercise in itself, especially considering the scope and stakes involved in these programs. In most cases the process needs to be undertaken anew every four to six years.

Procurement complexity is increased with competitive bidding, requiring consideration of the elements to bid (full capitation rates or administrative loads), how to structure the bidding, and the impact of state-specific procurement rules such as disadvantaged business contracting incentives. In balancing cost and quality factors of evaluation, the state will need to determine the number of points that are allocated to the competitively bid capitation rates. Once the contract is awarded, a degree of complexity is also added to the year-over-year rate adjustment process if differential rates among plans are to be maintained.

A request for proposals (RFP) for Medicaid managed care plans requires a significant amount of time to prepare, and it takes significant time and effort for each plan to prepare its response. State administrators must evaluate each proposal to ensure the plans used sound methods to arrive at their bids and are prepared to meet them. Additionally, competitive bids typically result in a market where multiple rates are in play, creating additional burdens on Medicaid Management Information Systems (MMIS) setups. States need to know that their systems can handle the complexity of a multi-rate marketplace to balance out the potential financial benefit.

Protests of contract awards are a fact of life in public procurement, making protest mitigation strategies a necessity—especially in critical and high-cost areas such as Medicaid managed care. Competitive bidding and state-set capitation rate approaches each bring unique considerations in this respect. Competitive bidding adds complexity to the procurement process, thus creating more avenues for protest. On the other hand, state-set capitation rates eliminate the quantitative cost element of scoring and thus increase the likelihood of attempts by protesting parties to question the details underlying the subjective evaluation process.

States should clearly understand what benefits they hope to achieve with the selection of either state set capitation rates or competitive bidding.

Sustainability and quality management: The viability of capitation rates—whether state-set or competitively bid—is an important consideration in planning for long-term program success. Competitively bid capitation rates submitted by an aggressive vendor can run a greater risk of proving unsustainable and requiring state intervention at a later time. Provider contracting and access is another factor to weigh, as low bidders may have less opportunity to pay competitive provider rates and thus may encounter access problems. Further, state budget agencies may look for continued savings in periods following a competitive bid scenario that resulted in aggressively bid rates.

Getting competitive bidding right

In a competitive bid process, states trust plans to perform due diligence and put forth their best efforts to deliver a reasonable capitation rate offer. In turn, states can design the bidding process to minimize unintended consequences and give plans the best chance of success. The following strategies can be employed in this process design.

Market dynamics: If Medicaid coverage is concentrated among a small number of plans, it can be difficult for states to switch members to new plan offerings. Large market players may interpret this as meaning that their chances of winning are higher, leading them to bid less aggressively. States that are willing to balance potential disruption can encourage more aggressive bidding by making all participants reenroll with a winning bidder, raising the stakes for plans. There is still a risk that competitive bidding may result in increased capitation rates, if the state has historically been very aggressive in the rate-setting process.

Publication of rate range: Under 42 CFR 438.6(c), capitation rates must be certified as actuarially sound. The capitation rates that are paid to a managed care health plan must fall within the capitation rate range certified by the state's actuary. In a competitive bid situation, the state will need to determine whether and how the capitation rate range will be published to the health plans. The state can choose to publish both ends of the range, only one end, or no information at all. In the latter case, the state needs to provide sufficient data and information to the bidding health plans to help them develop an appropriate bid rate—without biasing the competitive nature of the process.

Publication of number of slots to be awarded: Signaling to the market how many plans will be awarded contracts can change how plans bid. If there are many slots, plans may be concerned about spreading fixed administrative costs over a smaller number of lives, which can make them less likely to bid aggressively. If they are vying for a small number of slots, they may feel the competition is more intense, and that if they win they will have a large number of lives over which to spread administrative costs. In this case, they might be more inclined to bid lower.

Certification of capitation rate bid by health plan actuary: In a competitive bid scenario, it may be required to have the health plan submit an actuarial certification of the capitation rates that are being submitted in response to the RFP. The rate certification submitted by a health plan does not replace the state's actuary rate certification; rather, the health plan's rate certification indicates that the rate submitted in the competitive bid meets the actuarial soundness criteria for the specific plan. States need to be prepared to evaluate these certifications and have defensible criteria in place for how the certifications are judged.

EXAMPLE CONTRACTING SCENARIOS

Each agency has a unique set of circumstances that can affect whether fixed offer or competitive bid contracting is appropriate: how long they have to sign up new plans, the current makeup of the Medicaid marketplace, and the strength of pressure to reduce costs. These examples demonstrate how various decision factors can influence an agency's choice of contracting method—and how the decision is rarely a simple one.

Scenario 1: Ample time, strong cost pressure

A state is re-procuring an existing managed care contract and is planning well ahead, with more than 12 months until contract expiration. On the previous RFP, the state received proposals from a variety of qualified and interested bidders. Currently there is minimal variance among the contracted plans with respect to member enrollment. The state's budget is extremely tight and there is interest in reducing costs as much as possible.

Given the circumstances outlined above, this state may elect to competitively bid the rates for the new contract. With a competitive market with respect to both bidder interest and current member distribution, as well as time available in its procurement schedule, the stage is well set for competitive rate bidding. This is further supported by the budget considerations and a need to keep rates down.

Scenario 2: Not much time

A state is expanding its managed care contracting to include new populations under a new contract. Its current managed care contracts were not tightly contested in the RFP process, and membership is tilted strongly toward one plan with strong name recognition in the state. The state has fallen somewhat behind its planned procurement schedule, having well less than a year to start the new contracts. The procurement is taking place during the state's budget cycle, and there is a strong desire to narrowly define the budget impact of the new program.

Given these circumstances, this state would most likely elect to set the rates for its new program rather than engaging in competitive bidding. With an unknown amount of competition there is risk that rates will not be minimized, and the tight procurement schedule calls into question whether the extra effort will be fruitful. The desire for budget predictability suggests a preference for knowing the rates early in the process and not waiting until the end of the RFP process to understand the final impact.

Best and final offer: In a competitive bid scenario, a state Medicaid agency may choose to accept a best and final offer from Medicaid health plans. The best and final offer rate may or may not be considered in the establishment of the incentives. For example, the auto-assignment algorithm may be based only on the initial bid submitted by the health plan. This may encourage health plans to provide a near-best rate in the initial submission. A best and final offer may have limited impact depending on the capitation rate range and the initial bid submissions.

FIGURE 1: COMPETITIVE BID VS. FIXED OFFER: ISSUES AT A GLANCE

NEED	FIXED OFFER	COMPETITIVE BID
Control number of contracted plans	Fewer factors to apply when selecting awardees for a contract	Adds a key element of differentiation when choosing among plans
Manage costs	State controls the cost to a specific number or within a narrow range	Can offer incentives for plans to bid lower. Leaves cost decisions up to plans, which means some additional risk to the state
Minimize procurement complexity	Simpler administration and typically faster to complete	Can be more complex and costly and take longer to complete
Onboard new populations	State takes responsibility for establishing appropriate risk thresholds	Plans may have difficulty determining risk because of limited information, and may underbid or overbid, leading to financial instability
Manage quality	No need to connect technical criteria with pricing criteria as pricing is dictated to plans	Technical criteria must be integrated with bidding criteria

Conclusion

As Medicaid coverage continues to grow and change, states must take an active role in shaping the market for the benefit of their constituents. Driving cost down as far as possible is no longer the only or even the primary goal of states. Today, more states are taking an increased interest in sustainability and preventing disruptions in coverage, access, and the market as a whole.

No element of the process can be considered trivial. When choosing how to contract with managed care plans, states have significant control to manage the process. States wanting the simplest procurement method or needing to minimize risks associated with new populations might take a closer look at fixed offer contracting. States comfortable controlling the number of plans under contract, or wanting to reduce the cost of covering auto-assigned lives or increase competition in the marketplace, may want to consider carefully designed competitive bidding processes.

The key point to remember is that Medicaid contracting is not a one-size-fits-all process and can have significant effects beyond simply the price the state pays. Each state needs to examine its specific situation and the outcomes it wants to achieve, and design a contracting process most likely to support those ends.

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MILLIMAN RESEARCH REPORT

Medicaid managed care financial results for 2017

May 2018

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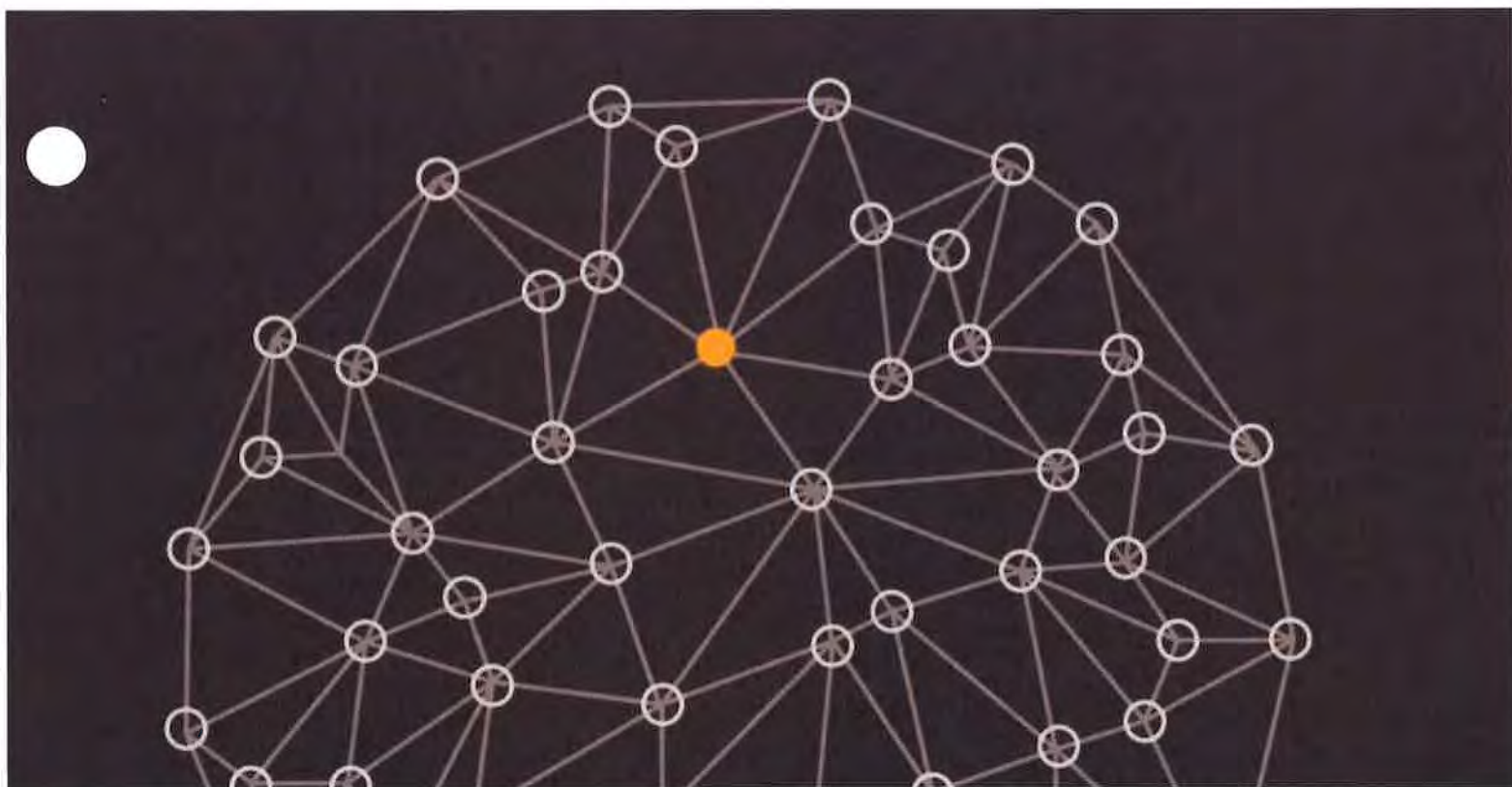


Table of Contents

INTRODUCTION	1
TEN YEARS OF ANALYSIS	3
SUMMARY OF CY 2017 FINANCIAL RESULTS	5
FINANCIAL RESULTS BY STATE	9
ADMINISTRATIVE COST ANALYSIS	11
CONCLUSION	14
LIMITATIONS AND DATA RELIANCE	14
QUALIFICATIONS	14
APPENDIX 1: FINANCIAL METRICS AND MCO CHARACTERISTICS	15
APPENDIX 2: DEFINITION OF FINANCIAL METRICS	22
MEDICAL LOSS RATIO (MLR)	22
UNDERWRITING RATIO	22
RISK-BASED CAPITAL RATIO (RBC RATIO)	23
ADMINISTRATIVE LOSS RATIO (ALR)	23
ADMINISTRATIVE COST PMPM	24
ADMINISTRATIVE EXPENSE CATEGORIES	24
APPENDIX 3: CMS REGIONS	26
APPENDIX 4: MCO GROUPINGS	27
ABOUT THE AUTHORS	34
ACKNOWLEDGMENTS	34

Introduction

Ever since the Medicaid program was signed into law in 1965, managed care was utilized as a tool in Medicaid agencies' designs of their state-specific Medicaid programs.¹ Today, nearly every state utilizes some form of managed care to aid in the operation of its Medicaid program. Examples of different forms include comprehensive risk-based managed care, primary care case management, and limited-benefit plans. The form that accounts for the majority of Medicaid enrollment coverage is risk-based managed care, with approximately 65% of Medicaid-covered lives. Risk-based managed care is the platform from which Medicaid recipients receive healthcare benefits, at least in part, in 38 or more states in the United States, the District of Columbia, and Puerto Rico. Managed care organizations (MCOs) of all varieties contract with state Medicaid agencies to deliver and manage the healthcare benefits under the Medicaid program in exchange for predetermined capitation revenue.

Since the inception of the Patient Protection and Affordable Care Act (ACA) in 2010, and subsequent Medicaid expansion efforts in several states, the number of Medicaid beneficiaries as well as the number of MCOs operating in the Medicaid line of business has increased substantially. We have observed enrollment trends beginning to level out in comparison to recent years, but continue to identify year-over-year increases.

Most states require that a contracted MCO also be a licensed health maintenance organization (HMO), which includes the requirement to file a statutory annual statement with the state insurance regulator. The statutory HMO annual statement is a standard reporting structure developed and maintained by the National Association of Insurance Commissioners (NAIC), with prescribed definitions allowing comparisons among various reporting entities.

This report summarizes the calendar year (CY) 2017 experience for selected financial metrics of organizations reporting Medicaid experience under the Title XIX Medicaid line of business on the NAIC annual statement. The information was compiled from the reported annual statements.² Companies may be excluded from this report for the following reasons:

- Did not submit an annual statement
- Reported less than \$10 million in annual Medicaid (Title XIX) revenue
- Specialized behavioral health plan or long-term services and supports plan
- Premium revenues indicate a limited set of covered services
- Reported values appear to be influenced by unusual circumstances
- Omitted from the NAIC database of annual statements utilized for this report.

This report includes information for eight MCOs operating in the Arizona Medicaid program that were outside of the NAIC annual statement information. We have noted limitations of this information where applicable in the report.

The primary purpose of this report is to provide reference and benchmarking information for certain key financial metrics used in the day-to-day analysis of Medicaid MCO financial performance. The financial results are summarized on a composite basis for all reporting MCOs. Additionally, this report provides differences among various types of MCOs using available segmentation attributes defined from the reported financial statements.

The target audiences of this report include state Medicaid agency and MCO personnel responsible for reviewing and monitoring the financial results of a risk-based managed care program.

This is the 10th annual iteration of the report, reflecting financial information for CY 2017. This report and the companion administrative cost report have been integrated into a single document to create a comprehensive resource of our analyses. Previous versions of these reports can be obtained from the Milliman website (milliman.com). The methodology used to generate this report is substantially consistent with the previous years' reports.

Appendix 1 provides additional detail and stratifications of the financial metrics presented in this report.

Appendix 2 provides the methodology and assumptions utilized in developing the metrics presented in this report.

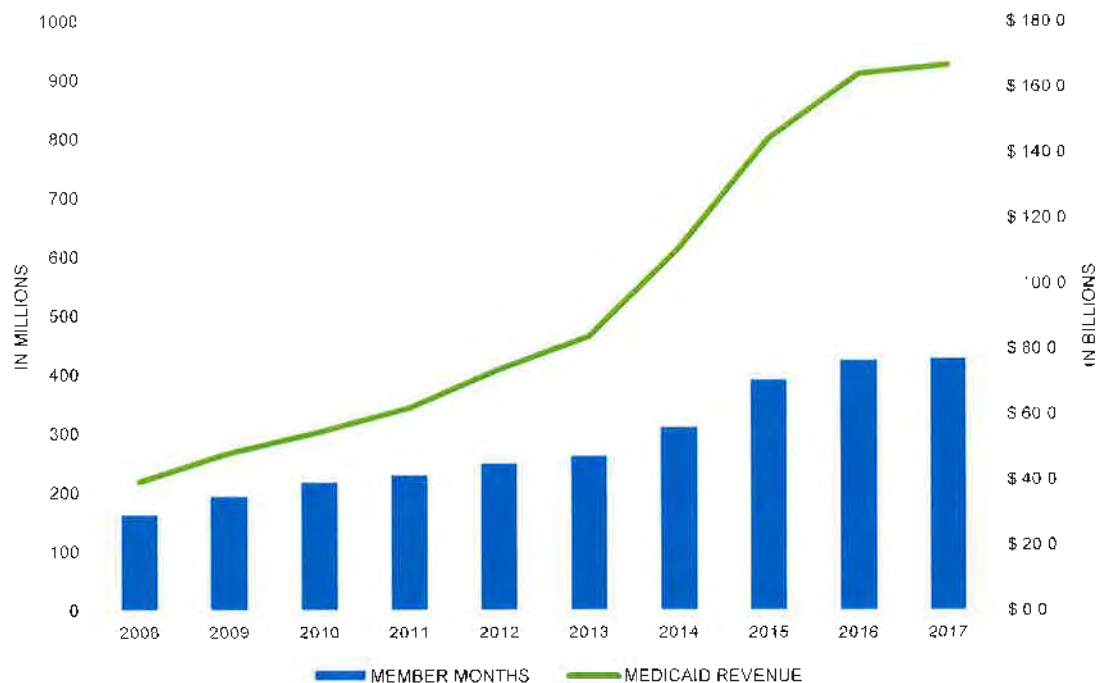
Appendix 3 illustrates the mapping of Centers for Medicare and Medicaid Services (CMS) regions.

Appendix 4 provides the listing of each MCO as well as the company attributes assumed for purposes of the MCO groupings included in this report.

Ten years of analysis

Analysis of the calendar year 2017 financial results for Medicaid MCOs marks the 10th edition of this report. Over the course of those 10 years, there has been significant growth and change in the Medicaid managed care market. Although companies have entered and left the Medicaid managed care market in those 10 years, the story has been relatively consistent: onward and upward. The continued growth of Medicaid managed care has resulted in increasing revenues to the participating MCOs along with progressively more assigned members, as illustrated in Figure 1.

FIGURE 1: HISTORICAL MANAGED CARE MEMBERSHIP AND REVENUE



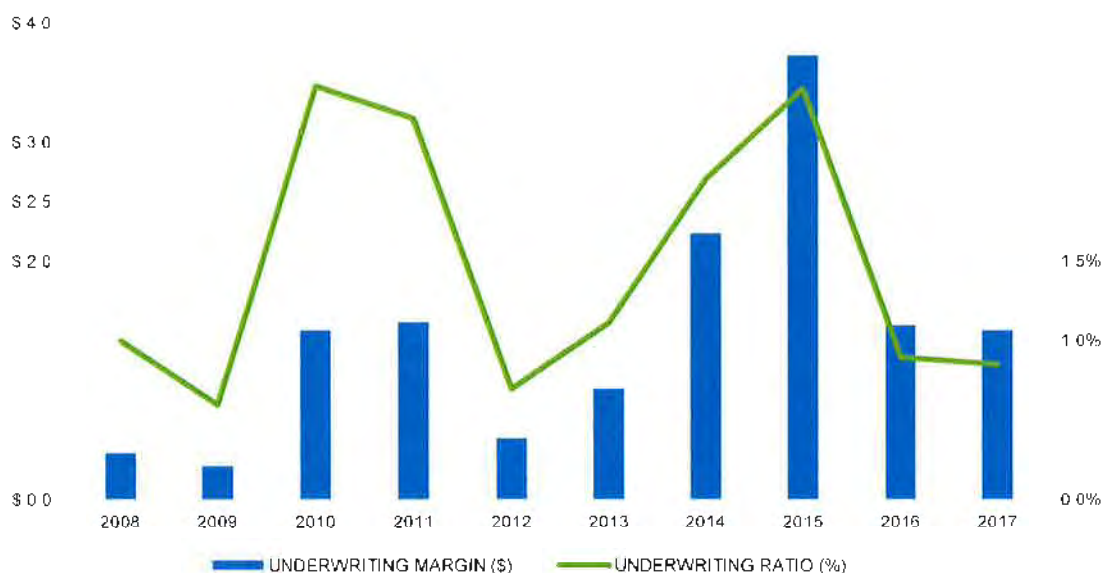
The observed growth cannot be attributed to just one item, however. From 2008 to 2017 there have been several factors contributing to the impressive increases in revenue and enrollment, most notably legislative changes and states' desires to transition away from historical fee-for-service (FFS) arrangements. The legislative changes include passage of the ACA in 2010, which paved the way for Medicaid expansion. With estimates of Medicaid expansion enrollment over 15 million nationwide, this alone has produced an almost 25% increase in total Medicaid enrollment. With several states opting to have the expansion members enroll in managed care, the membership base included in our study has grown exponentially. At the beginning of these expansion programs, actuaries contended with how to set capitation rates for a population that had not previously presented itself in a healthcare market. Capitation rates in these earlier rating periods were based on certain assumptions for pent-up demand and ultimate morbidity, but little to no historical experience for this population. During this period, the participating MCOs observed higher underwriting gains for 2014 and 2015. The gains observed for 2016 and 2017 have reverted to percentages observed in 2012 and 2013.

Furthermore, the increase in revenue has outpaced the increase in member months in recent years. Similar to the overall growth in Medicaid managed care, the resulting increase in average Medicaid MCO premium per member per month (PMPM) values has numerous contributing factors. These factors include general inflation trends, increases in provider fees and prescription drug costs, enrollment of Medicaid expansion lives at higher premiums, and the addition of high-cost services or populations to an already established managed care program. An example of the

additional services is the transition of long-term supports and services which are generally higher-cost than acute care services and would result in an increase to the average premium being paid to the MCOs managing the care of these newly covered services.

Another aspect of the narrative has been the relatively consistent performance of the MCOs identified in our analyses. We have observed variances from year to year and certainly across individual MCOs, but the underwriting performance has continued to reflect gains on a national basis. Figure 2 illustrates the variance in the underwriting ratio percentage on an annual basis, but highlights the growth in aggregate gains over these past 10 years. While the percentage underwriting gains have generally stayed between 0.5% and 2.5% over the past 10 years, a percentage point in underwriting gains represents a significantly larger amount of dollars in 2017 than 10 years ago.

FIGURE 2: HISTORICAL UNDERWRITING RATIO AND MARGIN



One offshoot of this expansion has been the reduction in risk-based capital (RBC) ratios across the Medicaid MCOs. The formula behind the RBC ratio is a comparison of the amount of capital held by a particular organization to the required amount of capital based on their at-risk business, known as authorized control level. The introduction of Medicaid expansion enrollees significantly increased the enrollment and size of the MCOs' business. Therefore, the authorized control level increased, but was not routinely met with an increase in actual capital consistent with historical RBC ratios. Although we have observed decreases in the average RBC ratio, the MCOs, in aggregate, continue to maintain capital levels about twice as high as the 200% company action level.

The observed changes over 10 years have been unprecedented, and we anticipate the next 10 years will continue to bring unexpected and new dynamics to the Medicaid managed care market. We have documented the year-by-year changes in this report and our prior research reports listed on the Milliman website,³ and we will continue to monitor the Medicaid managed care market going forward. The focus in the remainder of this report are the results we analyzed specific to calendar year 2017.

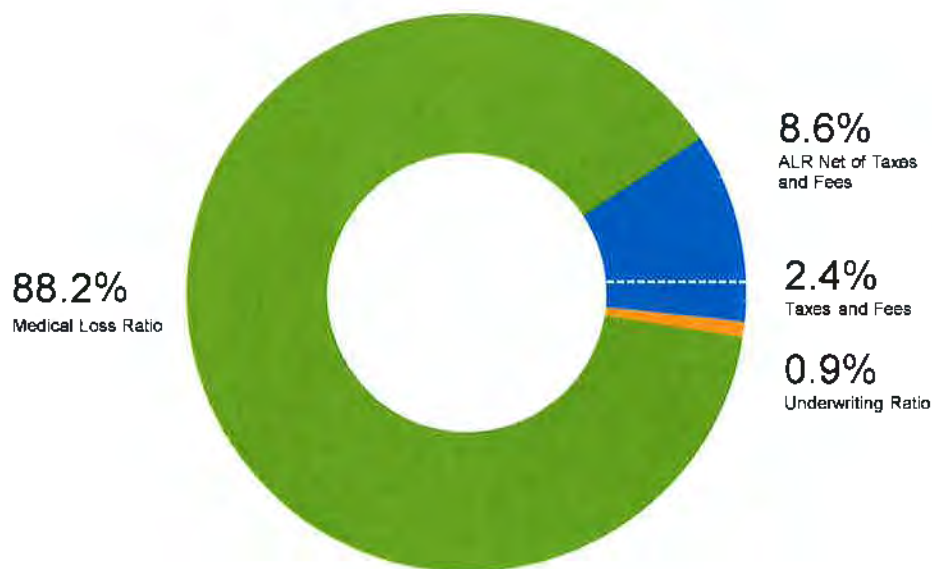
Summary of CY 2017 financial results

The CY 2017 financial information analyzed for this report comprises information for 186 reporting entities across 35 states, the District of Columbia, and Puerto Rico. The financial data for these MCOs were compiled to produce outcomes of key financial metrics for various company groupings. The distribution of results is summarized in this report to allow for user reference and benchmarking purposes.

The primary financial metrics that we have analyzed for this report include the medical loss ratio (MLR), administrative loss ratio (ALR), underwriting ratio (UW ratio), and RBC ratio. The selected metrics focus primarily on the income statement values of the financial statement, with the exception of the RBC ratio, which is a capital (or solvency) measure. The methodology and formulas behind these metrics is documented in Appendix 2.

Figure 3 summarizes the composite CY 2017 financial results for the 186 companies meeting the criteria selected for this study. The companies represent experience with over \$166 billion in annual Medicaid revenue.

FIGURE 3: COMPOSITE CY 2017 FINANCIAL RESULTS

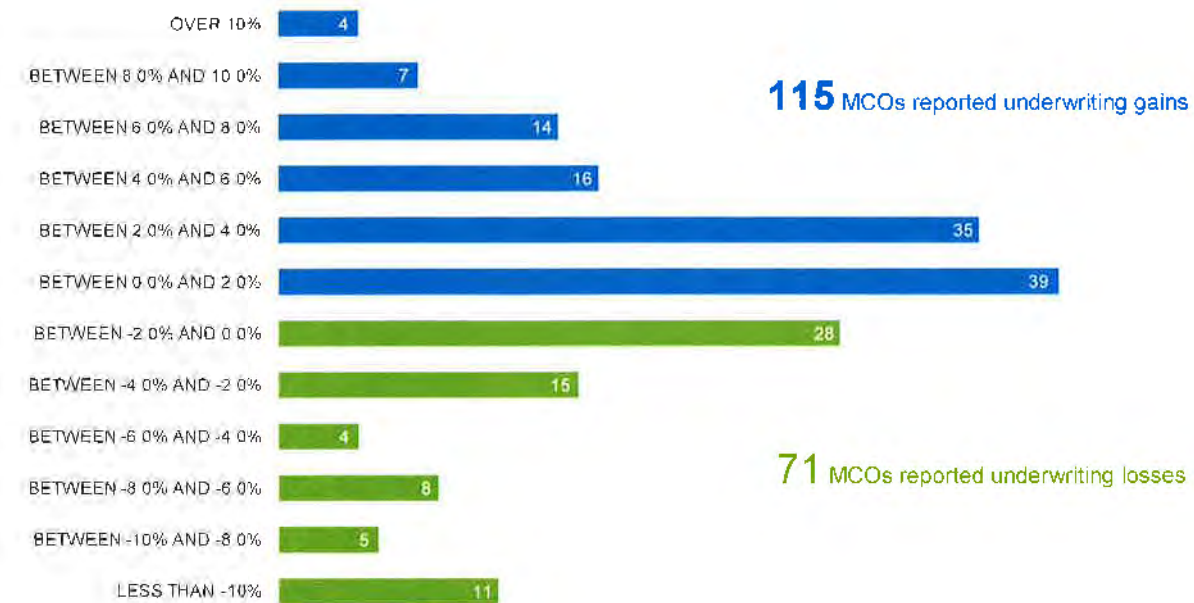


Notes

1. Values have been rounded.
2. Taxes and fees estimated based on a subset of the nationwide results.

While the composite underwriting margin is 0.9% across the identified MCOs, there were considerable variances in underwriting margin by MCO. Figure 4 provides a distribution of the number of MCOs within ranges of underwriting margin specific to CY 2017.

FIGURE 4: CY 2017 UNDERWRITING RATIO DISTRIBUTION

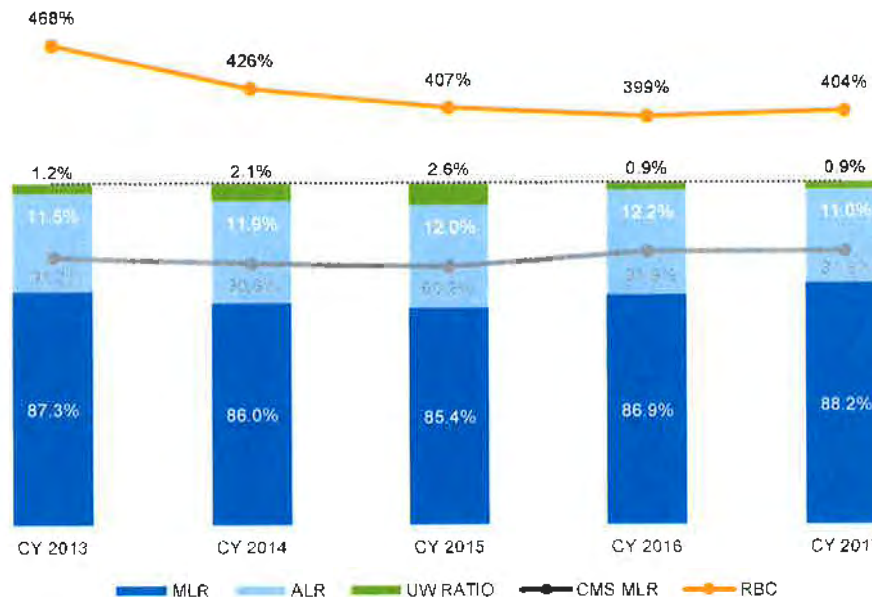


According to a recent study released by the Society of Actuaries, margin assumptions utilized in capitation rate setting generally vary from 0.5% to 2.5%.⁴ Figure 4 illustrates that the actual reported underwriting results vary significantly from capitation rate setting assumptions at the entity level, however, in aggregate, the CY 2017 underwriting results of 0.9% are within the expected range. Of the 186 MCOs, over 60% of the entities reported positive underwriting gains in their Medicaid experience, with 115 reporting positive underwriting gains and 71 reporting losses.

⁴ Society of Actuaries, "Medicaid Managed Care Organizations: 2017 Margin Study," Rate Setting, Retrieved from <https://www.soa.org/research-reports/2017/medicaid-margins/>

Over the past five years alone, the growth in Medicaid enrollment utilized in our analysis reflects over a 50% increase, with revenue nearly doubling, even after accounting for the Arizona MCOs for which additional information was first obtained for the 2015 update. Figure 5 summarizes the composite financial results for the most recent five-year period. The companies in each year are not the same; however, the criteria used to select the companies are consistent from year to year.

FIGURE 5: COMPOSITE FINANCIAL RESULTS



Notes:

1. Values have been rounded
2. Estimated CMS MLR developed to be consistent with prescribed CMS MLR calculation

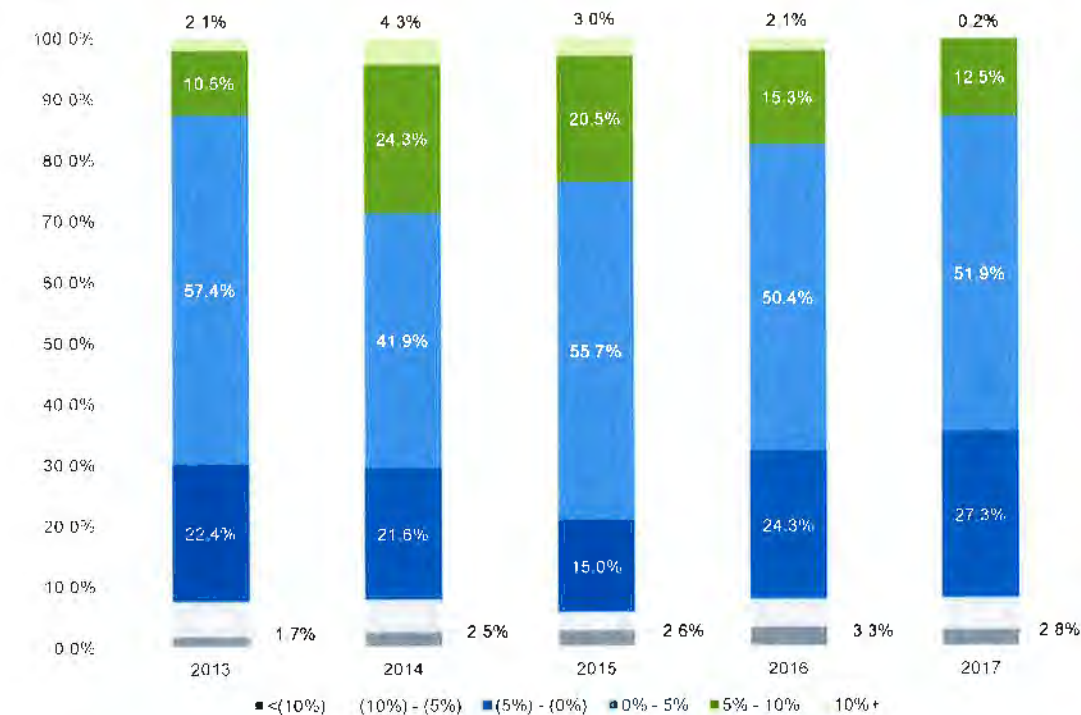
The results in Figure 5 illustrate a relatively consistent underwriting ratio between CY 2016 and CY 2017, with a 1.2% to 1.3% shift from the ALR to the MLR between the two years. The administrative cost analysis section of this report illustrates that the change in ALR and MLR appear to be primarily attributable to a decrease in the reported taxes and fees in CY 2017, which may be driven by the health insurance fee moratorium in CY 2017. Variances in the timing of how state Medicaid agencies reimburse MCOs for taxes and fees incurred and how the MCOs accrue this revenue and associated liability may impact this conclusion. The shift from ALR to MLR represents that, while the taxes have been historically paid to the MCOs as revenue and paid as an expense, the revenues paid to the MCOs for these taxes act as a pass-through and are not anticipated to change the at-risk portion of an MCO's business. Additionally, it would appear that the risk-based capital ratios are beginning to stabilize around the 400% level, down from the historical levels above 450% prior to Medicaid expansion efforts.

Because of the inconsistency between the MLR calculation based on information obtained from page 7 of the annual statement and that defined in the Medicaid and Children's Health Insurance Program (CHIP) managed care final rule (CMS-2390-F), we have estimated the CMS MLR, represented by the blue line in Figure 5. Consistent with the prior years' reports, we have estimated the CMS MLR under the definition prescribed in CMS-2390-F, by adjusting for quality improvement expenditures in the numerator and removal of applicable taxes and fees in the denominator. This change represents an increase to the composite MLR of approximately 4% to 5%. Based on the CMS MLR calculation, between 85% and 90% of the MCOs analyzed in this report would be at or above an 85% MLR. The 85% threshold is significant in that states may choose to implement a minimum MLR requirement of 85% or above in their MCO contracts, and the certified capitation rates must target an MLR of 85% or higher for rating periods starting

July 1, 2019, and after. Please note that the MLR calculated throughout the remainder of this report is not the estimated CMS MLR, but rather the one determined specifically as defined in Appendix 2.

While Figure 5 illustrates the overall changes in the underwriting results over the last five years, it is also important to understand how the underwriting results have varied across insurers. Figure 6 illustrates the distribution of underwriting results in the Medicaid managed care market for each calendar year from the MCOs included in our analysis.

FIGURE 6: DISTRIBUTION OF UNDERWRITING RESULTS BY YEAR



Note:

The distribution is weighted by the revenue associated with each MCO's corresponding underwriting results.

It is interesting to note that, while the composite UW ratio has varied over the five-year historical period, the percentage of plans that have reported a loss over 5% has not varied as significantly. Conversely, the percentage of plans reporting an underwriting gain of over 5% has decreased significantly since the introduction of the expansion population in CY 2014.

The composite UW ratio reported by the MCOs in CY 2017 represents an aggregate underwriting gain of approximately \$1.4 billion dollars in relation to the \$166.6 billion of revenue received. CY 2017 marks the first year in which the summarized data reflects a relatively flat Medicaid managed care enrollment and revenue growth from the prior year's report. This stabilization of enrollment and revenue is attributable to relatively few states introducing new populations to managed care in CY 2017. However, with many states anticipated to either introduce coverage for the Medicaid expansion population or expand their current managed care programs, the Medicaid managed care enrollment and revenue trends may continue in future years.

The continued reporting and payment of funds related to the ACA-required health insurer assessment fee has had an impact on the MCO financials. It is important to note that the timing of receipt and reporting of the health insurer assessment fee amounts by the MCOs in this report, and potential corporate income tax gross-ups, vary across states and reporting entities. Therefore, we have not made any adjustments to the values in this report to account for these items. It is likely that this has caused a material variation in the reported revenues and the administrative expenses, especially due to the Health Insurer Fee (HIF) moratorium in the CY 2017 fee year.

Financial results by state

While the Medicaid managed care financial results are relatively stable at a nationwide level, the financial results may vary significantly from state to state. Figure 7 provides the average MLR, ALR, and UW ratio for each state or territory with at least one MCO included in this analysis. Please note that MCOs were assigned to their states of domicile, and results for MCOs that report operations from multiple states within one entity would therefore be included within a single state. For a limited number of MCOs, the state of domicile was manually adjusted to represent the state where the Medicaid business is currently operated. Additionally, the state of domicile, in certain cases, may contain only a limited number of MCOs operating in the state Medicaid managed care market to the extent certain MCOs operating in the state are excluded for reasons cited earlier in this report.

FIGURE 7: STATE OF DOMICILE

STATE OF DOMICILE	N	MLR	ALR	UW RATIO	RBC RATIO
ARIZONA	8	88.6%	10.2%	1.3%	N/A
COLORADO	1	85.7%	9.7%	4.6%	387%
DISTRICT OF COLUMBIA	3	79.1%	15.1%	5.8%	359%
FLORIDA	9	87.6%	10.2%	2.2%	336%
GEORGIA	4	83.5%	12.6%	3.8%	416%
HAWAII	4	88.8%	9.7%	1.8%	458%
IOWA	2	101.7%	7.0%	(8.7%)	244%
ILLINOIS	7	96.7%	8.8%	(5.5%)	322%
INDIANA	3	90.6%	9.1%	0.3%	429%
KANSAS	2	88.7%	11.0%	0.3%	436%
KENTUCKY	5	88.1%	8.9%	3.1%	474%
LOUISIANA	5	85.0%	13.3%	1.7%	351%
MARYLAND	4	86.1%	9.7%	4.2%	305%
MASSACHUSETTS	6	92.6%	7.5%	(0.1%)	389%
MICHIGAN	10	89.8%	8.6%	1.6%	333%
MINNESOTA	5	92.1%	7.8%	0.0%	570%
MISSISSIPPI	2	91.4%	12.8%	(4.2%)	328%
MISSOURI	3	92.5%	8.9%	(1.4%)	559%
NEBRASKA	3	92.7%	10.2%	(2.8%)	285%
NEVADA	3	84.9%	10.3%	4.7%	382%
NEW HAMPSHIRE	1	97.0%	12.5%	(9.4%)	319%
NEW JERSEY	4	86.3%	11.4%	2.3%	354%
NEW MEXICO	4	85.9%	16.0%	(1.9%)	398%
NEW YORK	7	91.3%	10.6%	(1.9%)	483%
OHIO	5	83.3%	14.2%	2.5%	355%
OREGON	2	92.1%	6.4%	1.5%	768%
PENNSYLVANIA	6	83.5%	12.9%	3.6%	413%
PUERTO RICO	3	91.0%	8.3%	0.7%	411%
RHODE ISLAND	2	90.7%	9.3%	(0.0%)	283%
SOUTH CAROLINA	5	88.0%	9.8%	2.2%	538%
TENNESSEE	3	84.9%	14.7%	0.5%	471%
TEXAS	21	89.3%	11.3%	(0.6%)	311%

FIGURE 7: STATE OF DOMICILE (CONTINUED)

STATE OF DOMICILE	N	MLR	ALR	UW RATIO	RBC RATIO
UTAH	3	86.5%	8.3%	5.2%	460%
VIRGINIA	5	87.1%	9.5%	3.4%	485%
WASHINGTON	5	86.4%	11.0%	2.6%	415%
WEST VIRGINIA	4	88.9%	8.4%	1.6%	420%
WISCONSIN	17	85.0%	13.1%	1.9%	453%

Administrative cost analysis

MEDICAID FOCUSED AND MEDICAID OTHER MCOs

The previous section of this report contains analysis of key financial metrics for 186 MCOs that reported operations in the Medicaid line of business, based on page 7 of the NAIC annual statement (*Analysis of Operations by Line of Business*). This section examines the administrative expenses reported by the MCOs on the *Underwriting and Investment Exhibit Part 3 – Analysis of Expenses* page. Because this information is only reported on an aggregate MCO level, detailed administrative expense information is not stratified by line of business (e.g., Medicaid). Therefore, the results presented in this section of the report are limited to the 94 MCOs that reported 90% or more of their total revenue from the Medicaid line of business⁵ and are defined as “Medicaid focused.” The administrative loss ratios reported by the Medicaid focused and the remaining 92 MCOs, which operate in multiple lines of business, were relatively consistent. The Medicaid focused MCOs account for approximately 52% of the Medicaid revenue summarized for purposes of this report, with an 11.0% ALR, 8.7% net of taxes and fees.

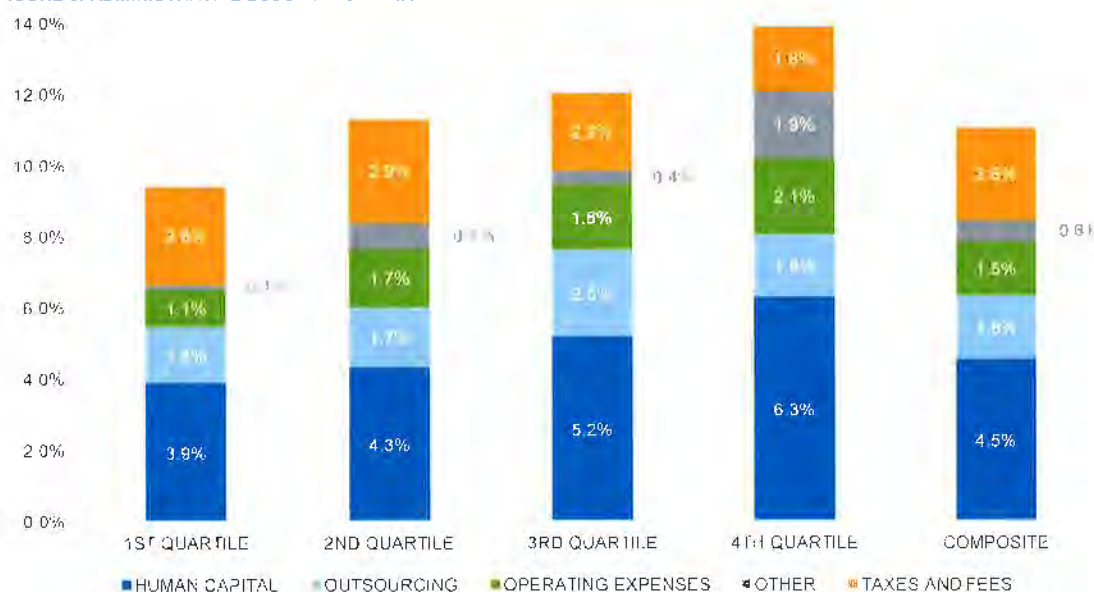
The remainder of this section summarizes the reported administrative costs for only the Medicaid focused MCOs. We additionally excluded eight Medicaid focused MCOs operating in the state of Arizona, resulting in a sample size of 86 MCOs. The information received for the Arizona MCOs was obtained outside of the NAIC annual statement information and did not contain the level of administrative cost detail necessary to develop the metrics illustrated in this report.

SUMMARY OF RESULTS

The primary expense categories that are used in the *Analysis of Operations by Line of Business* page include the claim adjustment expenses (CAE) and general administrative expenses (GAE). The CAE and GAE categories are further stratified by additional subcategories of expenses in the *Underwriting and Investment Exhibit Part 3 – Analysis of Expenses* page, which is the basis of the administrative expense categories illustrated in this administrative cost analysis.

Figure 8 summarizes the CY 2017 administrative expenses for the 86 companies meeting the criteria selected for this study by quartile of ALR performance. The administrative expenses are stratified by administrative cost categories summarized from the *Underwriting and Investment Exhibit Part 3 – Analysis of Expenses* page.⁶

FIGURE 8: ADMINISTRATIVE LOSS RATIO BY QUARTILE OF ALR PERFORMANCE



Note: Companies were ranked and grouped by the 2017 net of taxes and fees.

⁵ Revenue from operations in the Title XIX Medicaid line of business are considered “non-Medicaid” for purposes of this report. To the extent that Title XIX or other Medicaid operations are reported in a line of business other than Medicaid, such operations may be excluded from the administrative cost section of this report.

⁶ Detailed information on the administrative expense category classification is available in Appendix 2.

The results in Figure 8 illustrate the importance of analyzing the administrative costs net of taxes and fees, as the taxes and fees represent a significant but generally uncontrollable portion of the administrative costs incurred by an MCO. The taxes and fees levied on the MCOs vary greatly from state to state, making it difficult to analyze the reported administrative expenses without this adjustment.

In composite, MCOs grouped in the fourth quartile have higher administrative costs across all expense types than MCOs grouped in the first quartile. Human capital, costs related to salaries, wages, and other items specific to in-house staffing resources, accounts for the majority of the increase in administrative costs between MCOs in the first and second quartile versus the third and fourth quartiles. Differences between the first and second quartile are primarily attributable to operating and other expenses.

Figures 9 and 10 summarize the composite revenue and administrative expenses for the most recent five-year period for all companies matching the inclusion criteria indicated in this report. Unlike other figures in this report illustrating multiple years of financial results across all MCOs, the financial information included in Figures 9 and 10 has been limited to a consistent set of 54 MCOs that were in operation between CY 2013 and CY 2017. This limitation facilitates a more consistent review of the year-over-year administrative cost changes experienced by a closed group of MCOs.

FIGURE 9: ADMINISTRATIVE COST PMPM NET OF TAXES AND FEES BY YEAR

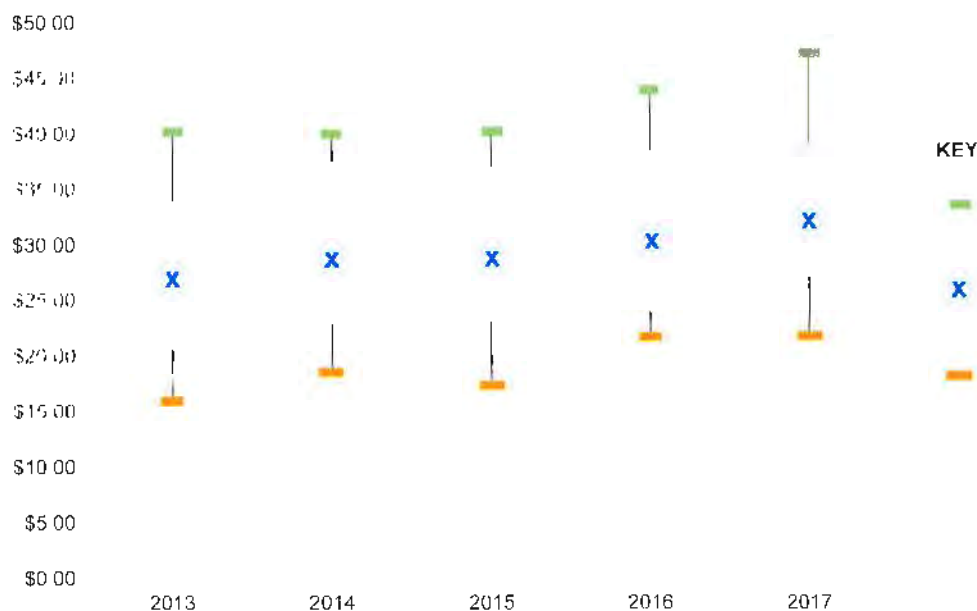
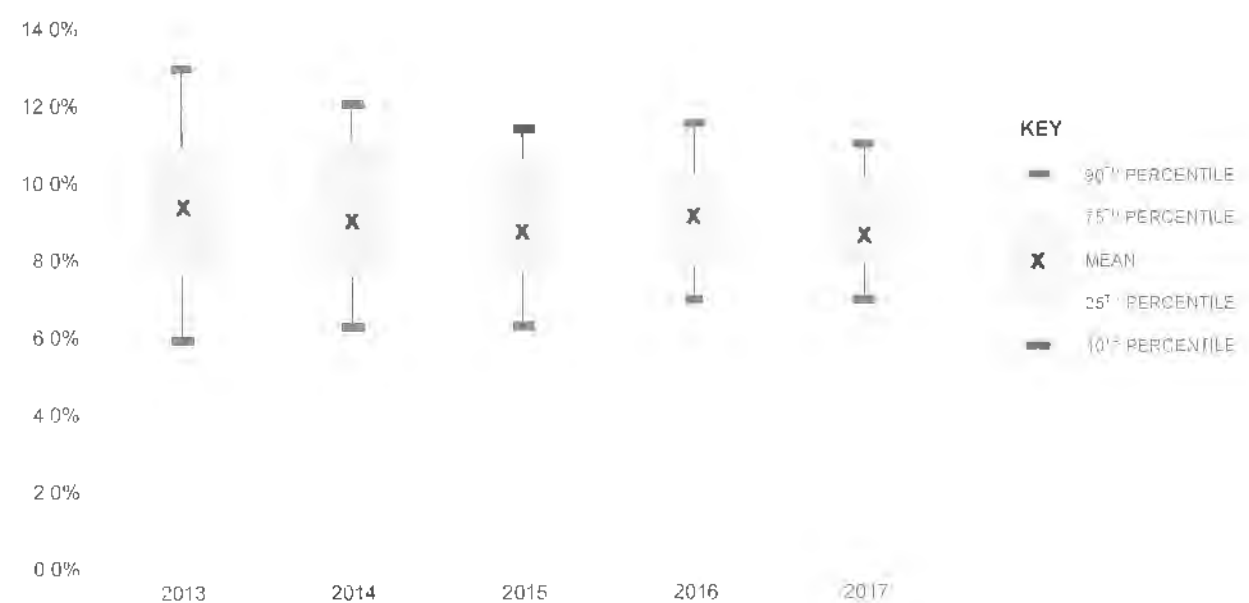


Figure 9 illustrates a consistent increase in the reported administrative cost PMPM from CY 2013 to CY 2017; however, the ALR net of taxes and fees observed in Figure 10 has been slightly decreasing over the same period. The PMPM increase from CY 2013 to CY 2017 is likely attributable to general inflationary trends as well as changes in the membership covered by the MCOs in this study, such as the introduction of Medicaid expansion members (which is likely a major contributor to the significant increase from CY 2013 to CY 2014), disabled members, and members requiring long-term services and supports, all of which have a higher claim and administrative cost. Transitioning more costly populations to managed care is anticipated to exert upward pressure on the administrative cost PMPM in the coming years, although the administrative costs may be partially offset by increased administrative efficiencies of the MCOs providing Medicaid coverage to a broader membership base.

While the administrative cost PMPM may be utilized to understand the administrative cost per member, the ALR represents the proportion of revenue that was used by the MCO to fund administrative expenses. Figure 10 illustrates the 10th, 25th, 75th, and 90th percentiles, as well as the mean, of the ALR net of taxes and fees over the last five years through a box plot format.

FIGURE 10: ALR NET OF TAXES AND FEES BY YEAR



Note: The ALR net of taxes and fees excludes taxes and fees from the numerator and denominator of the ALR calculation.

The ALR net of taxes and fees has generally decreased over the last five years. This result may be attributable to the introduction of more costly populations into managed care, as previously discussed. While more costly populations generally require greater administrative resources on a per member basis, the administrative expense is generally a lesser proportion of the total medical and administrative cost of providing services for these populations.

Additionally, the range of reported ALRs net of taxes and fees between CY 2013 and CY 2017 has notably decreased. In CY 2013, the difference between the 25th and 75th percentile of the ALR net of taxes and fees was 3.3%, and has since decreased to 2.2% in CY 2017. This variance again may be attributable to the disruptions in the Medicaid managed care market in CY 2013 and CY 2014 as the MCOs prepared to serve the new Medicaid expansion population.

Conclusion

Risk-based managed care represents a large portion of total Medicaid expenditures for CY 2017 and the amount of expenditures will continue to grow as Medicaid programs are anticipated to continue shifting membership to managed care organizations. Additional transition of members is also occurring for other populations that have traditionally been operated under fee-for-service arrangements. MCOs are an integral part of this delivery system and their financial results will help us understand the continued sustainability of risk-based managed care.

The results provide reference and benchmarking information for certain key financial metrics used in the day-to-day analysis of Medicaid MCO financial performance. It will be important to continue monitoring the results over time as the world of healthcare finance continues to evolve and pose new challenges.

Limitations and data reliance

The results contained in this report were compiled using data and information obtained from the statutory annual statements for Medicaid MCOs filed with the respective state insurance regulators. The annual statements were retrieved as of May 7, 2018, from an online database. In addition to the limiting criteria used to select companies in this report, certain MCOs may be omitted from this report because of the timing of annual statement submissions or their exclusions from the online database. For example, California is known to operate managed care programs, but they are not included in this report because there were no annual statements found in the online database for them.

The information was relied upon as reported and without audit. We performed a limited review of the data for reasonableness and consistency. To the extent that the data reported contained material errors or omissions, the values contained within this report would likewise contain similar reporting errors.

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The views expressed in this research paper are made by the authors and do not represent the opinions of Milliman, Inc. Other Milliman consultants may hold alternative views and reach different conclusions from those shown.

Qualifications

Guidelines issued by the American Academy of Actuaries require actuaries to include their professional qualifications in all actuarial communications. The authors are members of the American Academy of Actuaries, and meet the qualification standards for performing the analyses in this report.

Appendix 1: Financial metrics and MCO characteristics

In addition to the figures illustrated in the body of this report, we have analyzed the financial metrics stratified by certain MCO characteristics to understand the potential impact these characteristics have on the reported financial results. The figures in Appendix 1 illustrates the following financial metrics and MCO characteristics:

Financial metrics

- Medical loss ratio
- Underwriting ratio
- Risk-based capital ratio
- Administrative loss ratio
- Administrative loss ratio net of taxes and fees (Medicaid focused MCOs only)
- Administrative cost per member per month (PMPM) net of taxes and fees (Medicaid focused MCOs only)

MCO characteristics

CMS region (see chart in Appendix 3)

Annual Medicaid revenue

- Annual Medicaid revenue PMPM

MCO type (Medicaid focused versus all other MCOs)

MCOs operating in five or more states

MCO financial structure

State Medicaid expansion status

Underwriting gain/loss

FIGURE 11: MEDICAL LOSS RATIO: CY 2017 RESULTS

MCO GROUPING	CATEGORY	N	REVENUE	PERCENTILE					
			(IN \$ BILLIONS)	MEAN	10TH	25TH	50TH	75TH	90TH
COMPOSITE	COMPOSITE	186	166.6	88.2%	80.5%	84.1%	88.4%	91.6%	95.6%
CMS REGION	REGION 1	9	7.3	92.3%	88.2%	90.5%	91.1%	94.2%	97.0%
	REGION 2	14	13.3	89.6%	86.2%	86.9%	90.8%	91.9%	92.5%
	REGION 3	22	17.4	85.1%	79.0%	80.6%	86.4%	90.8%	92.2%
	REGION 4	28	36.4	87.0%	80.3%	84.0%	87.5%	90.3%	91.6%
	REGION 5	47	39.6	88.7%	78.7%	84.1%	87.8%	92.2%	95.8%
	REGION 6	30	29.3	87.9%	79.8%	83.5%	87.3%	92.2%	94.8%
	REGION 7	10	7.8	95.0%	87.1%	88.4%	90.7%	98.0%	101.3%
	REGION 8	4	0.8	86.3%	81.5%	82.4%	84.5%	88.0%	90.4%
	REGION 9	15	8.7	87.9%	83.9%	84.8%	88.3%	91.9%	111.3%
	REGION 10	7	6.0	86.9%	83.0%	84.1%	89.5%	91.4%	92.5%
ANNUAL REVENUE	\$10 TO \$250 MILLION	44	5.2	86.8%	75.7%	83.6%	87.0%	90.7%	95.0%
	\$250 TO \$600 MILLION	43	17.2	90.0%	80.3%	85.2%	90.0%	92.2%	98.0%
	\$600 MILLION TO \$1.2 BILLION	45	40.2	87.2%	80.7%	83.8%	87.1%	91.4%	92.9%
	MORE THAN \$1.2 BILLION	54	103.9	88.4%	82.8%	85.9%	89.0%	91.6%	94.7%
REVENUE PMPM	LESS THAN \$290	54	23.0	88.0%	78.8%	83.8%	87.6%	91.2%	96.0%
	\$290 TO \$425	69	62.0	87.8%	80.6%	84.4%	88.8%	91.6%	95.8%
	MORE THAN \$425	63	81.6	88.6%	80.6%	85.7%	89.4%	91.9%	94.7%
MCO TYPE	MEDICAID FOCUSED	94	85.7	88.0%	80.6%	83.8%	88.0%	91.4%	95.8%
	MEDICAID OTHER	92	80.9	88.4%	80.2%	84.5%	88.6%	91.8%	94.7%
MULTISTATE OPERATIONS	FIVE OR MORE	94	101.2	87.7%	80.5%	83.8%	87.4%	91.2%	95.6%
	LESS THAN FIVE	92	65.4	89.0%	80.3%	85.6%	89.5%	92.2%	95.0%
MCO FINANCIAL STRUCTURE	FOR-PROFIT	130	119.8	87.8%	80.2%	83.8%	87.5%	91.2%	95.1%
	NONPROFIT	56	46.7	89.3%	83.8%	86.4%	90.6%	92.4%	98.6%
EXPANSION STATUS	EXPANSION STATE	106	105.1	88.3%	80.6%	84.7%	88.8%	92.2%	97.0%
	NON-EXPANSION STATE	80	61.5	88.0%	80.3%	84.1%	87.9%	90.7%	92.7%
GAIN/(LOSS) POSITION	REPORTED A GAIN	114	107.6	85.7%	79.0%	83.0%	85.6%	88.6%	90.5%
	REPORTED A LOSS	72	58.9	92.8%	87.7%	90.4%	92.1%	95.7%	100.1%

FIGURE 12: UNDERWRITING RATIO: CY 2017 RESULTS

MCO GROUPING	CATEGORY	N	REVENUE	PERCENTILE					
			(IN \$ BILLIONS)	MEAN	10TH	25TH	50TH	75TH	90TH
COMPOSITE	COMPOSITE	186	166.6	0.9%	(6.8%)	(1.9%)	1.3%	3.7%	6.6%
CMS REGION	REGION 1	9	7.3	(0.4%)	(9.4%)	(0.4%)	(0.3%)	2.1%	3.2%
	REGION 2	14	13.3	(0.1%)	(3.0%)	(2.0%)	0.1%	2.5%	3.3%
	REGION 3	22	17.4	3.6%	(0.6%)	1.0%	2.3%	6.6%	8.3%
	REGION 4	28	36.4	1.8%	(4.9%)	(0.6%)	1.7%	5.0%	6.8%
	REGION 5	47	39.6	0.6%	(5.3%)	(1.1%)	1.3%	3.2%	7.3%
	REGION 6	30	29.3	(0.3%)	(8.7%)	(3.0%)	0.3%	3.9%	4.7%
	REGION 7	10	7.8	(4.0%)	(9.8%)	(7.0%)	(0.4%)	1.7%	3.0%
	REGION 8	4	0.8	5.1%	3.0%	3.8%	6.2%	7.9%	7.9%
	REGION 9	15	8.7	2.0%	(17.4%)	(6.9%)	1.6%	3.4%	6.2%
	REGION 10	7	6.0	2.5%	(4.0%)	0.8%	1.4%	4.9%	5.7%
ANNUAL REVENUE	\$10 TO \$250 MILLION	44	5.2	1.9%	(15.4%)	(1.7%)	2.0%	4.7%	8.5%
	\$250 TO \$600 MILLION	43	17.2	(0.7%)	(9.4%)	(2.9%)	0.0%	3.2%	5.7%
	\$600 MILLION TO \$1.2 BILLION	45	40.2	1.4%	(5.3%)	(1.1%)	1.8%	3.9%	7.8%
	MORE THAN \$1.2 BILLION	54	103.9	0.8%	(4.3%)	(1.9%)	1.0%	3.4%	4.9%
REVENUE PMPM	LESS THAN \$290	54	23.0	1.0%	(9.8%)	(1.1%)	1.6%	4.1%	7.8%
	\$290 TO \$425	69	62.0	1.2%	(6.9%)	(2.0%)	1.5%	3.8%	7.3%
	MORE THAN \$425	63	81.6	0.5%	(5.3%)	(2.0%)	1.0%	3.3%	5.0%
MCO TYPE	MEDICAID FOCUSED	94	85.7	1.0%	(6.9%)	(1.4%)	1.6%	4.1%	6.6%
	MEDICAID OTHER	92	80.9	0.7%	(6.6%)	(1.9%)	1.0%	3.4%	6.4%
MULTISTATE OPERATIONS	FIVE OR MORE	94	101.2	1.1%	(6.1%)	(1.4%)	1.6%	4.6%	7.5%
	LESS THAN FIVE	92	65.4	0.4%	(5.9%)	(1.9%)	1.1%	2.9%	4.9%
MCO FINANCIAL STRUCTURE	FOR-PROFIT	130	119.8	1.0%	(6.7%)	(1.7%)	1.6%	4.6%	7.8%
	NONPROFIT	56	46.7	0.5%	(8.8%)	(1.9%)	1.0%	2.8%	3.9%
EXPANSION STATUS	EXPANSION STATE	106	105.1	0.9%	(9.4%)	(2.0%)	1.3%	3.6%	6.2%
	NON-EXPANSION STATE	80	61.5	0.8%	(5.5%)	(1.3%)	1.4%	4.0%	7.7%
GAIN/(LOSS) POSITION	REPORTED A GAIN	114	107.6	3.2%	0.9%	1.6%	3.2%	5.0%	7.9%
	REPORTED A LOSS	72	58.9	(3.5%)	(14.1%)	(6.8%)	(2.9%)	(0.9%)	(0.3%)

FIGURE 13: RISK-BASED CAPITAL RATIO: CY 2017 RESULTS

MCO GROUPING	CATEGORY	N	REVENUE		PERCENTILE				
			(IN \$ BILLIONS)	MEAN	10TH	25TH	50TH	75TH	90TH
COMPOSITE	COMPOSITE	178	161.1	404%	255.5%	314%	381%	477%	631%
CMS REGION	REGION 1	9	7.3	366%	210%	319%	379%	410%	595%
	REGION 2	14	13.3	456%	294%	345%	413%	568%	743%
	REGION 3	22	17.4	411%	232%	315%	409%	499%	574%
	REGION 4	28	36.4	405%	255%	314%	379%	589%	702%
	REGION 5	47	39.6	417%	274%	315%	389%	470%	575%
	REGION 6	30	29.3	330%	217%	289%	344%	448%	608%
	REGION 7	10	7.8	343%	240%	300%	315%	477%	968%
	REGION 8	4	0.8	453%	387%	388%	429%	533%	598%
	REGION 9	7	3.3	430%	303%	312%	400%	539%	594%
	REGION 10	7	6.0	473%	340%	361%	428%	737%	971%
ANNUAL REVENUE	\$10 TO \$250 MILLION	42	5.0	509%	293%	348%	416%	575%	749%
	\$250 TO \$600 MILLION	40	16.0	454%	259%	308%	406%	565%	716%
	\$600 MILLION TO \$1.2 BILLION	44	39.4	433%	313%	329%	400%	475%	649%
	MORE THAN \$1.2 BILLION	52	100.8	360%	233%	289%	335%	402%	473%
REVENUE PMPM	LESS THAN \$290	49	19.4	433%	245%	323%	389%	530%	718%
	\$290 TO \$425	67	60.5	371%	263%	305%	372%	456%	595%
	MORE THAN \$425	62	81.3	415%	255%	326%	399%	496%	649%
MCO TYPE	MEDICAID FOCUSED	86	80.2	386%	274%	315%	377%	496%	677%
	MEDICAID OTHER	92	80.9	413%	255%	313%	389%	473%	575%
MULTISTATE OPERATIONS	FIVE OR MORE	91	98.7	369%	289%	315%	362%	445%	595%
	LESS THAN FIVE	87	62.4	441%	231%	313%	433%	539%	631%
MCO FINANCIAL STRUCTURE	FOR-PROFIT	125	116.3	385%	274%	310%	368%	466%	620%
	NONPROFIT	53	44.9	441%	210%	318%	451%	539%	631%
EXPANSION STATUS	EXPANSION STATE	98	99.6	417%	255%	319%	380%	467%	631%
	NON-EXPANSION STATE	80	61.5	384%	261%	301%	384%	491%	657%
GAIN/(LOSS) POSITION	REPORTED A GAIN	111	104.6	418%	303%	333%	413%	537%	695%
	REPORTED A LOSS	67	56.5	386%	210%	271%	345%	419%	548%

FIGURE 14: ADMINISTRATIVE LOSS RATIO: CY 2017 RESULTS

MCO GROUPING	CATEGORY	N	REVENUE	PERCENTILE					
			(IN \$ BILLIONS)	MEAN	10TH	25TH	50TH	75TH	90TH
COMPOSITE	COMPOSITE	186	166.6	11.0%	7.1%	9.0%	10.7%	13.0%	15.9%
CMS REGION	REGION 1	9	7.3	8.2%	6.0%	6.9%	9.2%	9.5%	12.5%
	REGION 2	14	13.3	10.5%	6.4%	8.7%	10.2%	11.8%	14.0%
	REGION 3	22	17.4	11.3%	7.4%	9.2%	10.1%	12.8%	16.2%
	REGION 4	28	36.4	11.2%	8.0%	9.3%	11.0%	13.5%	14.8%
	REGION 5	47	39.6	10.8%	6.7%	8.5%	10.5%	14.4%	16.6%
	REGION 6	30	29.3	12.4%	9.8%	11.4%	12.5%	15.0%	17.6%
	REGION 7	10	7.8	8.9%	7.0%	8.1%	9.7%	10.0%	11.5%
	REGION 8	4	0.8	8.7%	6.6%	7.7%	9.2%	10.2%	10.7%
	REGION 9	15	8.7	10.1%	7.8%	8.3%	10.3%	13.1%	14.8%
	REGION 10	7	6.0	10.6%	6.3%	6.6%	11.0%	12.1%	12.6%
ANNUAL REVENUE	\$10 TO \$250 MILLION	44	5.2	11.3%	6.9%	9.7%	11.9%	14.3%	20.1%
	\$250 TO \$600 MILLION	43	17.2	10.7%	6.6%	9.2%	10.4%	12.5%	14.3%
	\$600 MILLION TO \$1.2 BILLION	45	40.2	11.4%	7.6%	9.1%	11.6%	13.1%	15.7%
	MORE THAN \$1.2 BILLION	54	103.9	10.8%	7.3%	8.8%	9.8%	12.1%	14.5%
REVENUE PMPM	LESS THAN \$290	54	23.0	11.0%	8.2%	9.3%	11.2%	13.8%	17.0%
	\$290 TO \$425	69	62.0	11.0%	6.6%	8.8%	10.5%	12.7%	15.0%
	MORE THAN \$425	63	81.6	10.9%	6.9%	8.6%	10.0%	12.8%	15.1%
MCO TYPE	MEDICAID FOCUSED	94	85.7	11.0%	8.0%	9.3%	10.5%	12.8%	14.8%
	MEDICAID OTHER	92	80.9	10.9%	6.7%	8.6%	10.7%	13.3%	16.6%
MULTISTATE OPERATIONS	FIVE OR MORE	94	101.2	11.2%	8.3%	9.5%	11.0%	13.0%	15.1%
	LESS THAN FIVE	92	65.4	10.6%	6.6%	8.3%	10.3%	13.0%	16.6%
MCO FINANCIAL STRUCTURE	FOR-PROFIT	130	119.8	11.2%	8.2%	9.3%	11.1%	13.5%	15.9%
	NONPROFIT	56	46.7	10.2%	6.3%	7.5%	9.4%	11.8%	15.7%
EXPANSION STATUS	EXPANSION STATE	106	105.1	10.8%	6.6%	8.3%	9.9%	12.8%	15.7%
	NON-EXPANSION STATE	80	61.5	11.2%	8.3%	9.7%	11.3%	13.2%	15.9%
GAIN/(LOSS) POSITION	REPORTED A GAIN	114	107.6	11.1%	6.9%	8.9%	10.5%	12.8%	15.1%
	REPORTED A LOSS	72	58.9	10.7%	7.2%	9.2%	10.9%	13.8%	16.4%

FIGURE 15: ADMINISTRATIVE LOSS RATIO NET OF TAXES (MEDICAID FOCUSED MCOS): CY 2017 RESULTS

MCO GROUPING	CATEGORY	REVENUE		PERCENTILE					
		N	(IN \$ BILLIONS)	MEAN	10TH	25TH	50TH	75TH	90TH
COMPOSITE	COMPOSITE	86	80.2	8.7%	6.9%	7.9%	9.3%	10.6%	12.7%
CMS REGION	REGION 1	3	1.8	8.4%	7.7%	7.7%	9.6%	10.9%	10.9%
	REGION 2	5	4.6	9.2%	8.4%	9.2%	9.3%	9.8%	12.7%
	REGION 3	11	6.3	10.1%	9.0%	9.0%	10.9%	11.4%	12.4%
	REGION 4	17	19.3	9.5%	7.8%	8.8%	10.0%	11.2%	13.2%
	REGION 5	19	23.4	7.5%	5.0%	6.6%	8.5%	9.6%	12.7%
	REGION 6	14	13.7	9.0%	6.9%	7.9%	8.9%	10.0%	11.9%
	REGION 7	9	7.4	8.0%	6.9%	7.2%	8.9%	9.5%	11.1%
	REGION 8	1	0.1	8.7%	8.7%	8.7%	8.7%	8.7%	8.7%
	REGION 9	3	1.0	9.4%	8.0%	8.0%	10.0%	11.9%	11.9%
	REGION 10	4	2.7	8.4%	6.3%	6.9%	8.3%	9.9%	10.6%
ANNUAL REVENUE	\$10 TO \$250 MILLION	12	1.7	10.7%	8.7%	9.4%	10.4%	12.2%	16.0%
	\$250 TO \$600 MILLION	23	9.4	9.7%	6.9%	9.0%	9.8%	11.1%	12.7%
	\$600 MILLION TO \$1.2 BILLION	28	24.7	9.2%	6.9%	7.8%	8.9%	10.3%	13.2%
	MORE THAN \$1.2 BILLION	23	44.4	8.1%	6.6%	7.2%	8.4%	9.3%	10.4%
REVENUE PMPM	LESS THAN \$290	19	9.7	9.7%	7.4%	8.9%	9.8%	10.6%	13.3%
	\$290 TO \$425	42	35.8	9.0%	7.6%	8.0%	9.3%	10.9%	11.9%
	MORE THAN \$425	25	34.7	8.1%	6.6%	7.1%	8.5%	10.5%	12.7%
MULTISTATE OPERATIONS	FIVE OR MORE	56	51.8	9.0%	7.1%	7.9%	9.3%	10.9%	12.4%
	LESS THAN FIVE	30	28.5	8.1%	5.8%	7.6%	9.3%	10.3%	13.0%
MCO FINANCIAL STRUCTURE	FOR-PROFIT	66	58.8	9.0%	7.2%	8.1%	9.3%	10.9%	12.7%
	NONPROFIT	20	21.4	7.7%	5.0%	7.0%	9.1%	10.0%	10.9%
EXPANSION STATUS	EXPANSION STATE	49	53.1	8.1%	6.4%	7.6%	8.8%	10.0%	12.4%
	NON-EXPANSION STATE	37	27.2	9.8%	7.9%	8.9%	9.8%	10.9%	12.9%
GAIN/(LOSS) POSITION	REPORTED A GAIN	57	55.3	8.7%	6.9%	7.9%	9.3%	10.2%	11.9%
	REPORTED A LOSS	29	24.9	8.7%	6.9%	8.1%	9.3%	11.1%	12.7%

Note: This table is limited to Medicaid focused MCOs. Arizona MCOs were additionally excluded from this table, as detailed administrative cost information was not available.

FIGURE 16: ADMINISTRATIVE COSTS PMPM NET OF TAXES (MEDICAID FOCUSED MCOS): CY 2017 RESULTS

MCO GROUPING	CATEGORY	REVENUE		PERCENTILE					
		N	(IN \$ BILLIONS)	MEAN	10TH	25TH	50TH	75TH	90TH
COMPOSITE	COMPOSITE	86	80.2	\$ 32.69	\$ 20.75	\$ 27.68	\$ 32.65	\$ 40.53	\$ 48.94
CMS REGION	REGION 1	3	1.8	\$ 42.67	\$ 34.60	\$ 34.60	\$ 40.86	\$ 45.00	\$ 45.00
	REGION 2	5	4.6	\$ 29.85	\$ 16.69	\$ 17.39	\$ 36.43	\$ 43.65	\$ 88.93
	REGION 3	11	6.3	\$ 38.96	\$ 27.69	\$ 31.01	\$ 39.85	\$ 47.67	\$ 56.45
	REGION 4	17	19.3	\$ 33.75	\$ 24.14	\$ 29.84	\$ 34.20	\$ 38.03	\$ 46.73
	REGION 5	19	23.4	\$ 30.81	\$ 15.76	\$ 27.57	\$ 30.18	\$ 39.28	\$ 47.62
	REGION 6	14	13.7	\$ 31.44	\$ 20.79	\$ 25.98	\$ 28.78	\$ 33.10	\$ 59.83
	REGION 7	9	7.4	\$ 37.16	\$ 17.97	\$ 26.00	\$ 38.81	\$ 48.33	\$ 64.92
	REGION 8	1	0.1	\$ 21.22	\$ 21.22	\$ 21.22	\$ 21.22	\$ 21.22	\$ 21.22
	REGION 9	3	1.0	\$ 29.59	\$ 27.68	\$ 27.68	\$ 33.52	\$ 38.98	\$ 38.98
	REGION 10	4	2.7	\$ 25.85	\$ 20.75	\$ 23.55	\$ 27.98	\$ 30.01	\$ 30.40
ANNUAL REVENUE	\$10 TO \$250 MILLION	12	1.7	\$ 31.61	\$ 20.79	\$ 25.35	\$ 33.04	\$ 45.66	\$ 63.65
	\$250 TO \$600 MILLION	23	9.4	\$ 31.26	\$ 17.46	\$ 26.35	\$ 33.10	\$ 40.86	\$ 45.73
	\$600 MILLION TO \$1.2 BILLION	28	24.7	\$ 31.92	\$ 17.89	\$ 26.79	\$ 30.01	\$ 38.45	\$ 64.92
	MORE THAN \$1.2 BILLION	23	44.4	\$ 33.66	\$ 27.04	\$ 28.31	\$ 36.43	\$ 40.53	\$ 47.62
REVENUE PMPM	LESS THAN \$290	19	9.7	\$ 23.16	\$ 16.69	\$ 17.89	\$ 23.98	\$ 29.61	\$ 31.48
	\$290 TO \$425	42	35.8	\$ 30.76	\$ 26.35	\$ 28.31	\$ 31.38	\$ 38.98	\$ 41.87
	MORE THAN \$425	25	34.7	\$ 41.49	\$ 34.20	\$ 37.45	\$ 45.73	\$ 56.45	\$ 88.93
MULTISTATE OPERATIONS	FIVE OR MORE	56	51.8	\$ 34.14	\$ 24.47	\$ 28.78	\$ 34.93	\$ 41.36	\$ 48.33
	LESS THAN FIVE	30	28.5	\$ 30.11	\$ 16.85	\$ 20.79	\$ 30.35	\$ 39.28	\$ 60.05
MCO FINANCIAL STRUCTURE	FOR-PROFIT	66	58.8	\$ 33.76	\$ 24.14	\$ 28.31	\$ 34.36	\$ 40.86	\$ 48.94
	NONPROFIT	20	21.4	\$ 29.64	\$ 16.38	\$ 19.32	\$ 28.86	\$ 38.93	\$ 51.59
EXPANSION STATUS	EXPANSION STATE	49	53.1	\$ 33.66	\$ 26.35	\$ 28.31	\$ 35.61	\$ 40.86	\$ 48.94
	NON-EXPANSION STATE	37	27.2	\$ 31.23	\$ 17.89	\$ 24.14	\$ 31.01	\$ 38.03	\$ 56.45
GAIN/(LOSS) POSITION	REPORTED A GAIN	57	55.3	\$ 32.85	\$ 20.79	\$ 27.68	\$ 31.09	\$ 39.28	\$ 59.83
	REPORTED A LOSS	29	24.9	\$ 32.33	\$ 17.39	\$ 28.31	\$ 38.03	\$ 42.34	\$ 48.33

Note: This table is limited to Medicaid-focused MCOs. Arizona MCOs were additionally excluded from this table, as detailed administrative cost information was not available.

Appendix 2: Definition of financial metrics

The financial metrics calculated for purposes of this report include the medical loss ratio (MLR), underwriting ratio (UW ratio), risk-based capital ratio (RBC ratio), administrative loss ratio (ALR), and administrative cost PMPM. These selected metrics focus primarily on the income statement values of the financial statement, with the exception of the RBC ratio, which is a capital (or solvency) measure

The financial metrics selected encompass five of the primary ratios used by MCOs, state Medicaid agencies, and other stakeholders to evaluate the financial performance of an MCO. The metrics are defined in greater detail below.

MEDICAL LOSS RATIO (MLR)

MLR is a common financial metric used to report and benchmark the financial performance of an MCO. The MLR represents the proportion of revenue that was used by the MCO to fund claim expenses. The MLR is stated as a percentage, with claim expense in the numerator and revenue in the denominator

In terms of the statutory annual statement, the MLR was defined as follows:

$$\text{MLR} = \frac{\text{TOTAL HOSPITAL AND MEDICAL EXPENSES} + \text{INCREASE IN RESERVES FOR A\&H CONTRACTS}}{\text{TOTAL REVENUE}}$$

WHERE: TOTAL HOSPITAL AND MEDICAL EXPENSES: TITLE XIX-MEDICAID (P 7, L.17, C.8)
 INCREASE IN RESERVES FOR ACCIDENT AND HEALTH (A&H) CONTRACTS:
 TITLE XIX-MEDICAID (P 7, L.21, C.8)
 TOTAL REVENUE: TITLE XIX-MEDICAID (P.7, L 7, C 8)

Certain states include pass-through type programs such as franchise fees or provider taxes. This would also include amounts related to the health insurer assessment fee and applicable income tax gross-ups. These items may or may not be included in the total revenue reported by the MCO because the reporting practices vary among plans. If reported in the total revenue, there should be a corresponding offset amount included in the administrative costs for this as well

Actuaries and financial analysts use the MLR as a measure of premium adequacy and often compare the resulting MLR with a "target" level. The MLR alone is not sufficient to compare MCO financial results among various states and programs. The target loss ratios (the claim cost included in the premium or capitation rate) vary by state and populations enrolled. Additionally, there may be reporting differences among MCOs as to what is classified as medical expense versus administrative expense

As previously noted, the definition of MLR for purposes of this report may not be consistent with other definitions, in particular the Medicaid and CHIP managed care final rule (CMS-2390-F). The Medicaid and CHIP managed care final rule allows for the reduction of taxes, licensing, and regulatory fees from the revenue, a credibility adjustment, as well as the addition of quality improvement expenditures to the hospital and medical expenses in the numerator. The estimated CMS MLR in Figure 5 above includes a 2% adjustment for quality improvement expenditures and removal of estimated Medicaid taxes, licensing, and regulatory fees from the revenue, which generally results in an additional 2% to 3% increase in the CMS MLR. However, other provisions, such as the exclusion of pass-through payments from the numerator and denominator of the MLR formula, could decrease the MLR percentage.

UNDERWRITING RATIO

The UW ratio is the sum of the MLR and the ALR (defined below) subtracted from 100%. A positive UW ratio indicates a financial gain, while a negative UW ratio indicates a loss. This financial metric is used to report and benchmark the financial performance of an MCO in consideration of both medical and administrative expenses. The UW ratio represents the proportion of revenue that was "left over" to fund the MCO's contribution to surplus and profit after funding medical and administrative expenses. The UW ratio is stated as a percentage, with total underwriting gain or loss in the numerator and revenue in the denominator.

In terms of the statutory annual statement, the UW ratio was defined as follows:

$$\text{UW RATIO} = \frac{\text{NET UNDERWRITING GAIN OR (LOSS)}}{\text{TOTAL REVENUE}}$$

WHERE: NET UNDERWRITING GAIN OR (LOSS): TITLE XIX—MEDICAID (P 7, L.24, C 8)
TOTAL REVENUE: TITLE XIX—MEDICAID (P 7, L.7, C 8)

The UW ratio is focused on the income from operations and excludes consideration of investment income and income taxes. The UW ratio requires interpretation and considerations similar in nature to the MLR and ALR metrics outlined above.

RISK-BASED CAPITAL RATIO (RBC RATIO)

The RBC ratio is a financial metric used by many insurance regulators to monitor the solvency of the MCOs. The RBC ratio represents the proportion of the required minimum capital that is held by the MCO as of a specific date (the end of the financial reporting period). The RBC ratio is stated as a percentage or a ratio, with total adjusted capital (TAC) in the numerator and authorized control level (ACL) in the denominator.

The NAIC prescribes a specific formula to develop both the TAC and the ACL. Further, the MCO is subjected to various action levels based on the resulting RBC ratio, as follows:

- Company action level (TAC is between 150% and 200% of the ACL RBC)
- Regulatory action level (TAC is between 100% and 150% of the ACL RBC)
- Authorized control level (TAC is between 70% and 100% of the ACL RBC)
- Mandatory control level (TAC is less than 70% of the ACL RBC)

Further details and discussion of the RBC requirements may be found at the NAIC website (www.naic.org).

In terms of the statutory annual statement, the RBC ratio was defined as follows:

$$\text{RBC RATIO} = \frac{\text{TOTAL ADJUSTED CAPITAL}}{\text{AUTHORIZED CONTROL LEVEL}}$$

WHERE: TOTAL ADJUSTED CAPITAL: TOTAL ADJUSTED CAPITAL—CURRENT YEAR (P.28, L 14, C.1)
AUTHORIZED CONTROL LEVEL: AUTHORIZED CONTROL LEVEL—CURRENT YEAR (P.28, L.15, C.1)

Note

The RBC ratio is not unique to the Medicaid title XIX line of business as it is calculated at the company level. Therefore, companies reporting non-Medicaid business will reflect composite RBC ratios for all lines of business within the reported legal entity.

ADMINISTRATIVE LOSS RATIO (ALR)

ALR is also a common financial metric used to report and benchmark the financial performance of an MCO. The ALR represents the proportion of revenue that was used by the MCO to fund administrative expenses. The ALR is stated as a percentage, with administrative expense in the numerator and revenue in the denominator.

In terms of the statutory annual statement, the ALR was defined as follows:

$$\text{ALR} = \frac{\text{CLAIM ADJUSTMENT EXPENSES + GENERAL ADMINISTRATIVE EXPENSES}}{\text{TOTAL REVENUE}}$$

WHERE: CLAIM ADJUSTMENT EXPENSES: TITLE XIX—MEDICAID (P 7, L.19, C.8)
GENERAL ADMINISTRATIVE EXPENSES: TITLE XIX—MEDICAID (P.7, L.20, C 8)
TOTAL REVENUE: TITLE XIX—MEDICAID (P 7, L.7, C.8)

The ALR requires interpretation and considerations similar in nature to the MLR metric outlined above, most notably impacted by the state and federal taxes levied on MCOs across the different states. The ALR net of taxes and fees was estimated for Medicaid focused MCOs by distributing the total Medicaid CAE and GAE expenses by the expense allocation reported on the *Underwriting and Investment Exhibit Part 3 – Analysis of Expenses* page, and then subtracting out the estimated taxes. The ALR values net of taxes and fees illustrated in this report were calculated by excluding taxes and fees from both the numerator and denominator of the ALR formula.

ADMINISTRATIVE COST PMPM

The administrative cost PMPM is the second metric for analyzing administrative expenses because of the fixed cost nature of certain components of the administrative expense. The administrative cost PMPM was defined as follows:

$$\text{ADMIN PMPM} = \frac{\text{CLAIM ADJUSTMENT EXPENSES} + \text{GENERAL ADMINISTRATIVE EXPENSES}}{\text{CURRENT YEAR MEMBER MONTHS}}$$

WHERE:

- CLAIM ADJUSTMENT EXPENSES: TITLE XIX-MEDICAID (P.7, L.19, C.8)
- GENERAL ADMINISTRATIVE EXPENSES: TITLE XIX-MEDICAID (P.7, L.20, C.8)
- CURRENT YEAR MEMBER MONTHS: TITLE XIX-MEDICAID (P.30 GT, L.6, C.9)

The administrative cost PMPM net of taxes and fees illustrated in this report estimated the taxes and fees consistently with the methodology utilized for the ALR net of taxes and fees.

ADMINISTRATIVE EXPENSE CATEGORIES

The administrative expenses reported on the *Underwriting and Investment Exhibit Part 3 – Analysis of Expenses* page are broken out into 25 specific line items. These line items were grouped into five administrative expense categories to better illustrate the components of administrative cost incurred by the MCOs. The subcategories were selected to be intuitive groupings as well as meaningful with respect to their relative magnitudes. The following descriptions outline each administrative expense category:

- Human capital: Administrative costs associated with the employment of MCO staff.
- Outsourcing: Administrative costs associated with functions outsourced to a third party.
- Operating expenses: Administrative costs associated with the day-to-day costs of running the MCO.
- Taxes and fees: Administrative costs associated with taxes and fees incurred by the MCO. Payroll taxes were assigned to the human capital category. Real estate taxes were assigned to the operating expenses category. Federal and state income taxes are not included on the *Underwriting and Investment Exhibit Part 3 – Analysis of Expenses* page, and are not included in this administrative expense category.
- Other expenses: Administrative costs for aggregate write-ins.

The *Underwriting and Investment Exhibit Part 3 – Analysis of Expenses* page illustrates administrative expenses across all lines of business. Throughout the figures illustrated in this report, the administrative costs in each administrative expense category were proportionally adjusted so the total Medicaid administrative expenses would match the amounts reported on the *Analysis of Operations by Line of Business* page.

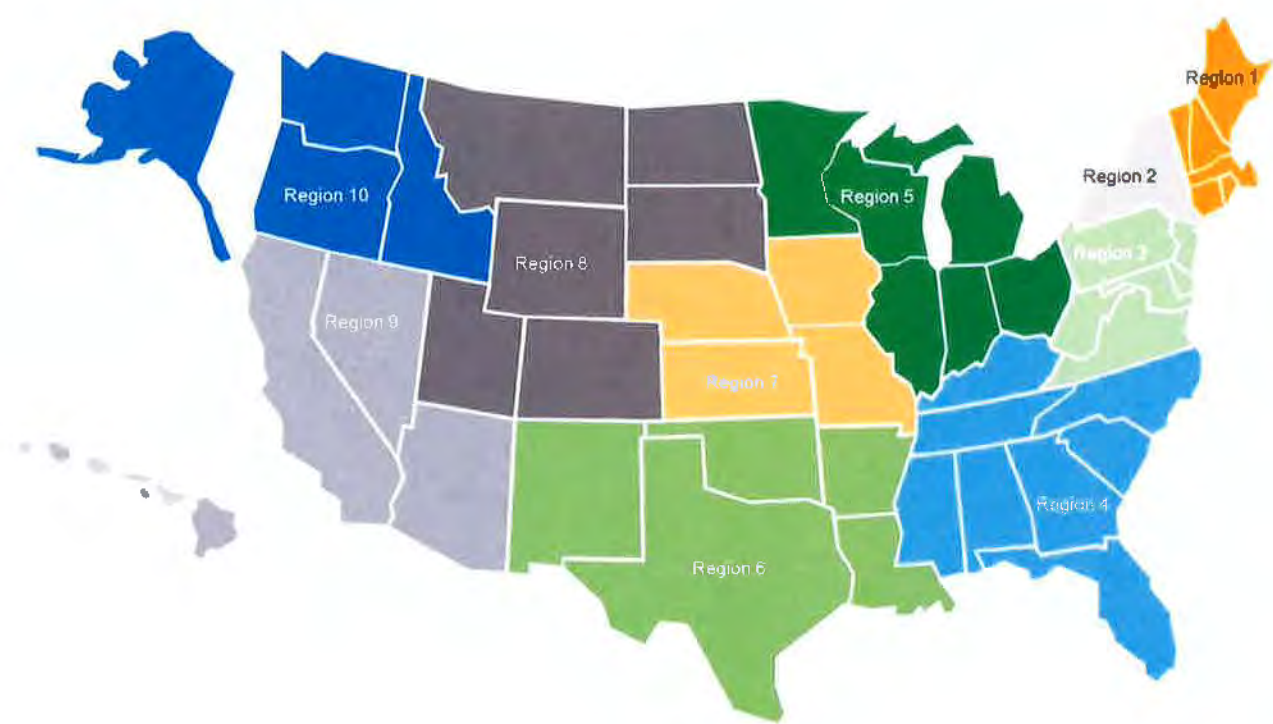
Additionally, Line 19 and Line 20 of the *Underwriting and Investment Exhibit Part 3 – Analysis of Expenses* page, "Reimbursements by uninsured plans" and "Reimbursements from fiscal intermediaries," were excluded from the administrative cost grouping, because these lines would likely be attributable to non-Medicaid business.

FIGURE 17: ADMINISTRATIVE CATEGORY DEFINITIONS

ADMINISTRATIVE EXPENSE BREAKDOWN		U&I EXHIBIT PART 3 EXPENSES (COLUMNS 3-4)
HUMAN CAPITAL	SALARIES, WAGES, AND OTHER BENEFITS	LINE 2
	BOARDS, BUREAUS, AND ASSOCIATION FEES	LINE 15
	INSURANCE, EXCEPT ON REAL ESTATE	LINE 16
	PAYROLL TAXES	LINE 23 4
OUTSOURCING	AUDITING, ACTUARIAL, AND OTHER CONSULTING SERVICES	LINE 6
	OUTSOURCED SERVICES INCLUDING EDP, CLAIMS, AND OTHER SERVICES	LINE 14
OPERATING EXPENSES	RENT	LINE 1
	COMMISSIONS	LINE 3
	LEGAL FEES AND EXPENSES	LINE 4
	CERTIFICATIONS AND ACCREDITATION FEES	LINE 5
	TRAVELING EXPENSES	LINE 7
	MARKETING AND ADVERTISING	LINE 8
	POSTAGE, EXPRESS, AND TELEPHONE	LINE 9
	PRINTING AND OFFICE SUPPLIES	LINE 10
	OCCUPANCY, DEPRECIATION, AND AMORTIZATION	LINE 11
	EQUIPMENT	LINE 12
	COST OR DEPRECIATION OF EDP EQUIPMENT AND SOFTWARE	LINE 13
	COLLECTION AND BANK SERVICE CHARGES	LINE 17
	GROUP SERVICE AND ADMINISTRATION FEES	LINE 18
	REAL ESTATE EXPENSES	LINE 21
	REAL ESTATE TAXES	LINE 22
	INVESTMENT EXPENSES NOT INCLUDED ELSEWHERE	LINE 24
TAXES AND FEES	STATE AND LOCAL INSURANCE TAXES	LINE 23 1
	STATE PREMIUM TAXES	LINE 23 2
	REGULATORY AUTHORITY LICENSES AND FEES	LINE 23 3
	OTHER (EXCLUDING FEDERAL INCOME AND REAL ESTATE TAXES)	LINE 23 5
OTHER	AGGREGATE WRITE-INS FOR EXPENSES	LINE 25
EXCLUDED ⁷	REIMBURSEMENTS BY UNINSURED PLANS	LINE 19
	REIMBURSEMENTS FROM FISCAL INTERMEDIARIES	LINE 20

⁷ These administrative expenses are excluded for purposes of allocating the expenses only; the actual Medicaid administrative expenses reported were not adjusted.

Appendix 3: CMS regions



Appendix 4: MCO groupings

STATE	MCO	CMS REGION	ANNUAL REVENUE	REVENUE PMPM	MCO TYPE	MULTISTATE OPERATIONS	FINANCIAL STRUCTURE	GAIN OR LOSS	EXPANSION STATUS
ARIZONA	CARE1ST	REGION 9	\$250M TO \$600M	\$0 TO \$290	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
ARIZONA	HEALTH CHOICE	REGION 9	\$600M TO \$1.2 B	\$0 TO \$290	MEDICAID ONLY	LESS THAN FIVE	FOR-PROFIT	GAIN	EXPANSION STATE
ARIZONA	HEALTH NET ACCESS	REGION 9	\$10M TO \$250M	\$290 TO \$425	MEDICAID ONLY	LESS THAN FIVE	FOR-PROFIT	LOSS	EXPANSION STATE
ARIZONA	MERCY CARE PLAN	REGION 9	\$1.2 B+	\$290 TO \$425	MEDICAID ONLY	LESS THAN FIVE	NONPROFIT	LOSS	EXPANSION STATE
ARIZONA	UNIVERSITY FAMILY CARE	REGION 9	\$250M TO \$600M	\$0 TO \$290	MEDICAID ONLY	LESS THAN FIVE	NONPROFIT	LOSS	EXPANSION STATE
ARIZONA	UNITED HEALTH CARE COMMUNITY	REGION 9	\$1.2 B+	\$0 TO \$290	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
ARIZONA	UNITED-CRS	REGION 9	\$250M TO \$600M	\$425+	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	LOSS	EXPANSION STATE
ARIZONA	CMDP	REGION 9	\$10M TO \$250M	\$0 TO \$290	MEDICAID ONLY	LESS THAN FIVE	NONPROFIT	LOSS	EXPANSION STATE
COLORADO	ROCKY MTN HLTH MAINTENANCE ORG	REGION 8	\$10M TO \$250M	\$425+	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
DISTRICT OF COLUMBIA	AMERIGROUP DISTRICT	REGION 3	\$10M TO \$250M	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	LOSS	EXPANSION STATE
DISTRICT OF COLUMBIA	AMERIHEALTH CARITAS DISTRICT	REGION 3	\$250M TO \$600M	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
DISTRICT OF COLUMBIA	TRUSTED HEALTH PLAN	REGION 3	\$10M TO \$250M	\$290 TO \$425	MEDICAID ONLY	LESS THAN FIVE	FOR-PROFIT	GAIN	EXPANSION STATE
FLORIDA	COVENTRY HEALTH CARE OF FL INC	REGION 4	\$250M TO \$600M	\$425+	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	LOSS	NON-EXPANSION STATE
FLORIDA	FLORIDA MHS INC.	REGION 4	\$600M TO \$1.2 B	\$425+	MEDICAID ONLY	LESS THAN FIVE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
FLORIDA	FLORIDA TRUE HEALTH INC	REGION 4	\$1.2 B+	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
FLORIDA	HUMANA MEDICAL PLAN INC.	REGION 4	\$1.2 B+	\$425+	MEDICAID OTHER	LESS THAN FIVE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
FLORIDA	MOLINA HEALTHCARE OF FL INC.	REGION 4	\$1.2 B+	\$290 TO \$425	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	LOSS	NON-EXPANSION STATE
FLORIDA	SIMPLY HEALTHCARE PLANS INC.	REGION 4	\$1.2 B+	\$290 TO \$425	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
FLORIDA	SUNSHINE STATE HEALTH PLAN INC	REGION 4	\$1.2 B+	\$290 TO \$425	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	LOSS	NON-EXPANSION STATE
FLORIDA	UNITEDHEALTHCARE OF FL INC.	REGION 4	\$1.2 B+	\$425+	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
FLORIDA	WELLCARE OF FLORIDA INC.	REGION 4	\$1.2 B+	\$290 TO \$425	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
GEORGIA	AMGP GEORGIA MANAGED CARE CO.	REGION 4	\$600M TO \$1.2 B	\$0 TO \$290	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
GEORGIA	CARESOURCE GEORGIA CO.	REGION 4	\$250M TO \$600M	\$0 TO \$290	MEDICAID ONLY	LESS THAN FIVE	NONPROFIT	GAIN	NON-EXPANSION STATE
GEORGIA	PEACH STATE HEALTH PLAN INC.	REGION 4	\$600M TO \$1.2 B	\$0 TO \$290	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
GEORGIA	WELLCARE OF GEORGIA INC.	REGION 4	\$1.2 B+	\$0 TO \$290	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
HAWAII	ALOHA CARE	REGION 9	\$250M TO \$600M	\$290 TO \$425	MEDICAID ONLY	LESS THAN FIVE	NONPROFIT	GAIN	EXPANSION STATE
HAWAII	HAWAII MEDICAL SERVICE ASSN	REGION 9	\$600M TO \$1.2 B	\$290 TO \$425	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	GAIN	EXPANSION STATE

MILLIMAN RESEARCH REPORT

STATE	MCO	CMS REGION	ANNUAL REVENUE	REVENUE PMPM	MCO TYPE	MULTISTATE OPERATIONS	FINANCIAL STRUCTURE	GAIN OR LOSS	EXPANSION STATUS
HAWAII	KAISER FNDTN HLTH PLAN INC. HI	REGION 9	\$10M TO \$250M	\$290 TO \$425	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	LOSS	EXPANSION STATE
HAWAII	WELLCARE HEALTH INS OF AZ INC.	REGION 9	\$250M TO \$600M	\$425+	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
ILLINOIS	AETNA BETTER HEALTH INC. (IL)	REGION 5	\$1.2 B+	\$425+	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	LOSS	EXPANSION STATE
ILLINOIS	FAMILY HEALTH NETWORK INC.	REGION 5	\$250M TO \$600M	\$0 TO \$290	MEDICAID ONLY	LESS THAN FIVE	NONPROFIT	LOSS	EXPANSION STATE
ILLINOIS	HARMONY HEALTH PLAN INC.	REGION 5	\$250M TO \$600M	\$0 TO \$290	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	LOSS	EXPANSION STATE
ILLINOIS	HEALTHSPRING OF TENNESSEE INC.	REGION 5	\$10M TO \$250M	\$425+	MEDICAID OTHER	LESS THAN FIVE	FOR-PROFIT	GAIN	EXPANSION STATE
ILLINOIS	ILLINICARE HEALTH PLAN INC.	REGION 5	\$1.2 B+	\$425+	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	LOSS	EXPANSION STATE
ILLINOIS	MERIDIAN HEALTH PLAN OF IL INC	REGION 5	\$1.2 B+	\$0 TO \$290	MEDICAID OTHER	LESS THAN FIVE	FOR-PROFIT	LOSS	EXPANSION STATE
ILLINOIS	MOLINA HEALTHCARE OF IL INC	REGION 5	\$600M TO \$1.2 B	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	LOSS	EXPANSION STATE
INDIANA	ANTHEM INSURANCE COMPANIES INC	REGION 5	\$1.2 B+	\$425+	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	LOSS	EXPANSION STATE
INDIANA	CARESOURCE INDIANA INC.	REGION 5	\$10M TO \$250M	\$0 TO \$290	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	GAIN	EXPANSION STATE
INDIANA	COORDINATED CARE CORP.	REGION 5	\$1.2 B+	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
IOWA	AMERIGROUP IOWA INC.	REGION 7	\$1.2 B+	\$425+	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	LOSS	EXPANSION STATE
IOWA	AMERIHEALTH CARITAS IOWA INC.	REGION 7	\$1.2 B+	\$425+	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	LOSS	EXPANSION STATE
KANSAS	AMERIGROUP KANSAS INC.	REGION 7	\$600M TO \$1.2 B	\$425+	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	LOSS	NON-EXPANSION STATE
KANSAS	SUNFLOWER STATE HLTH PLAN INC.	REGION 7	\$600M TO \$1.2 B	\$425+	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
KENTUCKY	AETNA BETTER HLTH OF KY INS CO	REGION 4	\$600M TO \$1.2 B	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
KENTUCKY	ANTHEM KY MNGD CARE PLAN INC.	REGION 4	\$600M TO \$1.2 B	\$425+	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
KENTUCKY	HUMANA HEALTH PLAN INC.	REGION 4	\$250M TO \$600M	\$0 TO \$290	MEDICAID OTHER	LESS THAN FIVE	FOR-PROFIT	LOSS	EXPANSION STATE
KENTUCKY	UNIVERSITY HEALTH CARE INC	REGION 4	\$1.2 B+	\$425+	MEDICAID ONLY	LESS THAN FIVE	NONPROFIT	GAIN	EXPANSION STATE
KENTUCKY	WELLCARE HLTH INS CO. OF KY	REGION 4	\$1.2 B+	\$425+	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
LOUISIANA	AETNA BETTER HEALTH INC. (LA)	REGION 6	\$250M TO \$600M	\$425+	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
LOUISIANA	AMERIHEALTH CARITAS LA INC.	REGION 6	\$600M TO \$1.2 B	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
LOUISIANA	CMNTY CARE HLTH PLAN OF LA INC	REGION 6	\$600M TO \$1.2 B	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
LOUISIANA	LA HEALTHCARE CONNECTIONS INC.	REGION 6	\$1.2 B+	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	LOSS	EXPANSION STATE
LOUISIANA	UNITEDHEALTHCARE OF LA INC.	REGION 6	\$1.2 B+	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
MARYLAND	AMERIGROUP MARYLAND INC.	REGION 3	\$600M TO \$1.2 B	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
MARYLAND	KAISER FOUNDATION HEALTH PLAN	REGION 3	\$250M TO \$600M	\$290 TO \$425	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	LOSS	EXPANSION STATE

MILLIMAN RESEARCH REPORT

STATE	MCO	CMS REGION	ANNUAL REVENUE	REVENUE PMPM	MCO TYPE	MULTISTATE OPERATIONS	FINANCIAL STRUCTURE	GAIN OR LOSS	EXPANSION STATUS
MARYLAND	MEDSTAR FAMILY CHOICE INC.	REGION 3	\$600M TO \$1.2 B	\$290 TO \$425	MEDICAID OTHER	LESS THAN FIVE	FOR-PROFIT	GAIN	EXPANSION STATE
MARYLAND	UNITEDHEALTHCARE	REGION 3	\$600M TO \$1.2 B	\$290 TO \$425	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
MASSACHUSETTS	BOSTON MED CENTER HEALTH PLAN	REGION 1	\$1.2 B+	\$425+	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	LOSS	EXPANSION STATE
MASSACHUSETTS	CELTICARE HLTH PLAN OF MA INC.	REGION 1	\$10M TO \$250M	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
MASSACHUSETTS	FALLON COMMUNITY HLTH PLAN INC.	REGION 1	\$10M TO \$250M	\$425+	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	GAIN	EXPANSION STATE
MASSACHUSETTS	HEALTH NEW ENGLAND INC.	REGION 1	\$250M TO \$600M	\$425+	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	LOSS	EXPANSION STATE
MASSACHUSETTS	NEIGHBORHOOD HEALTH PLAN INC.	REGION 1	\$1.2 B+	\$425+	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	GAIN	EXPANSION STATE
MASSACHUSETTS	TUFTS HEALTH PUBLIC PLANS INC.	REGION 1	\$1.2 B+	\$425+	MEDICAID OTHER	LESS THAN FIVE	FOR-PROFIT	LOSS	EXPANSION STATE
MICHIGAN	AETNA BETTER HEALTH OF MI INC.	REGION 5	\$10M TO \$250M	\$290 TO \$425	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	LOSS	EXPANSION STATE
MICHIGAN	BLUE CROSS COMPLETE OF MI LLC	REGION 5	\$600M TO \$1.2 B	\$290 TO \$425	MEDICAID ONLY	LESS THAN FIVE	FOR-PROFIT	GAIN	EXPANSION STATE
MICHIGAN	HARBOR HEALTH PLAN INC.	REGION 5	\$10M TO \$250M	\$290 TO \$425	MEDICAID OTHER	LESS THAN FIVE	FOR-PROFIT	GAIN	EXPANSION STATE
MICHIGAN	MCLAREN HEALTH PLAN INC.	REGION 5	\$600M TO \$1.2 B	\$290 TO \$425	MEDICAID ONLY	LESS THAN FIVE	NONPROFIT	GAIN	EXPANSION STATE
MICHIGAN	MERIDIAN HLTH PLAN OF MI INC.	REGION 5	\$1.2 B+	\$290 TO \$425	MEDICAID ONLY	LESS THAN FIVE	FOR-PROFIT	LOSS	EXPANSION STATE
MICHIGAN	MOLINA HEALTHCARE OF MI INC.	REGION 5	\$1.2 B+	\$290 TO \$425	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
MICHIGAN	PRIORITY HEALTH CHOICE INC.	REGION 5	\$250M TO \$600M	\$290 TO \$425	MEDICAID ONLY	LESS THAN FIVE	NONPROFIT	GAIN	EXPANSION STATE
MICHIGAN	TOTAL HEALTH CARE INC.	REGION 5	\$250M TO \$600M	\$290 TO \$425	MEDICAID ONLY	LESS THAN FIVE	NONPROFIT	LOSS	EXPANSION STATE
MICHIGAN	UNITEDHEALTHCARE CMNTY (MI)	REGION 5	\$600M TO \$1.2 B	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
MICHIGAN	UPPER PENINSULA HLTH PLAN LLC	REGION 5	\$10M TO \$250M	\$290 TO \$425	MEDICAID OTHER	LESS THAN FIVE	FOR-PROFIT	GAIN	EXPANSION STATE
MINNESOTA	HEALTHPARTNERS INC.	REGION 5	\$600M TO \$1.2 B	\$425+	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	LOSS	EXPANSION STATE
MINNESOTA	HENNEPIN HEALTH	REGION 5	\$10M TO \$250M	\$425+	MEDICAID ONLY	LESS THAN FIVE	NONPROFIT	GAIN	EXPANSION STATE
MINNESOTA	HMO MINNESOTA	REGION 5	\$1.2 B+	\$425+	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	LOSS	EXPANSION STATE
MINNESOTA	MEDICA HEALTH PLANS	REGION 5	\$1.2 B+	\$425+	MEDICAID ONLY	LESS THAN FIVE	NONPROFIT	GAIN	EXPANSION STATE
MINNESOTA	UCARE MINNESOTA	REGION 5	\$1.2 B+	\$425+	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	GAIN	EXPANSION STATE
MISSISSIPPI	MAGNOLIA HEALTH PLAN INC.	REGION 4	\$1.2 B+	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	LOSS	NON-EXPANSION STATE
MISSISSIPPI	UNITEDHEALTHCARE OF MS INC.	REGION 4	\$600M TO \$1.2 B	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	LOSS	NON-EXPANSION STATE
MISSOURI	AETNA BETTER HEALTH OF MO LLC	REGION 7	\$250M TO \$600M	\$0 TO \$290	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
MISSOURI	HOME STATE HEALTH PLAN INC.	REGION 7	\$600M TO \$1.2 B	\$0 TO \$290	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	LOSS	NON-EXPANSION STATE
MISSOURI	MISSOURI CARE INC.	REGION 7	\$600M TO \$1.2 B	\$0 TO \$290	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	NON-EXPANSION STATE

MILLIMAN RESEARCH REPORT

STATE	MCO	CMS REGION	ANNUAL REVENUE	REVENUE PMPM	MCO TYPE	MULTISTATE OPERATIONS	FINANCIAL STRUCTURE	GAIN OR LOSS	EXPANSION STATUS
NEBRASKA	NEBRASKA TOTAL CARE INC.	REGION 7	\$250M TO \$600M	\$425+	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	LOSS	NON-EXPANSION STATE
NEBRASKA	UNITEDHEALTHCARE (MIDLANDS)	REGION 7	\$250M TO \$600M	\$425+	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
NEBRASKA	WELLCARE OF NEBRASKA INC.	REGION 7	\$250M TO \$600M	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
NEVADA	AMERIGROUP NEVADA INC.	REGION 9	\$600M TO \$1.2 B	\$0 TO \$290	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
NEVADA	HEALTH PLAN OF NEVADA INC.	REGION 9	\$600M TO \$1.2 B	\$290 TO \$425	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
NEVADA	SILVERSUMMIT HEALTHPLAN INC.	REGION 9	\$10M TO \$250M	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	LOSS	EXPANSION STATE
NEW HAMPSHIRE	GRANITE STATE HEALTH PLAN INC	REGION 1	\$250M TO \$600M	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	LOSS	EXPANSION STATE
NEW JERSEY	AETNA BETTER HEALTH INC. (NJ)	REGION 2	\$10M TO \$250M	\$425+	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
NEW JERSEY	AMERICHoice OF NEW JERSEY INC.	REGION 2	\$1.2 B+	\$425+	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
NEW JERSEY	AMERIGROUP NEW JERSEY INC.	REGION 2	\$600M TO \$1.2 B	\$425+	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
NEW JERSEY	WELLCARE HLTH PLANS OF NJ INC.	REGION 2	\$250M TO \$600M	\$425+	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	LOSS	EXPANSION STATE
NEW MEXICO	HCSC INSURANCE SERVICES CO.	REGION 6	\$600M TO \$1.2 B	\$425+	MEDICAID OTHER	LESS THAN FIVE	FOR-PROFIT	LOSS	EXPANSION STATE
NEW MEXICO	MOLINA HEALTHCARE OF NM INC.	REGION 6	\$1.2 B+	\$425+	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	LOSS	EXPANSION STATE
NEW MEXICO	PRESBYTERIAN HEALTH PLAN INC.	REGION 6	\$600M TO \$1.2 B	\$425+	MEDICAID OTHER	LESS THAN FIVE	FOR-PROFIT	GAIN	EXPANSION STATE
NEW MEXICO	UNITEDHEALTHCARE OF NEW MEXICO	REGION 6	\$600M TO \$1.2 B	\$425+	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
NEW YORK	CAP DISTRICT PHYSICIANS' HLTH	REGION 2	\$250M TO \$600M	\$425+	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	LOSS	EXPANSION STATE
NEW YORK	EXCELLUS HEALTH PLAN INC.	REGION 2	\$600M TO \$1.2 B	\$425+	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	LOSS	EXPANSION STATE
NEW YORK	HEALTH INS PLAN OF GREATER NY	REGION 2	\$600M TO \$1.2 B	\$425+	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	LOSS	EXPANSION STATE
NEW YORK	HEALTHNOW NEW YORK INC.	REGION 2	\$10M TO \$250M	\$425+	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	GAIN	EXPANSION STATE
NEW YORK	INDEPENDENT HEALTH ASSN.	REGION 2	\$250M TO \$600M	\$425+	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	LOSS	EXPANSION STATE
NEW YORK	MVP HEALTH PLAN INC.	REGION 2	\$600M TO \$1.2 B	\$425+	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	GAIN	EXPANSION STATE
NEW YORK	UNITEDHEALTHCARE OF NY INC.	REGION 2	\$1.2 B+	\$425+	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	LOSS	EXPANSION STATE
OHIO	BUCKEYE CMNTY HEALTH PLAN INC.	REGION 5	\$1.2 B+	\$425+	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
OHIO	CARESOURCE	REGION 5	\$1.2 B+	\$425+	MEDICAID ONLY	LESS THAN FIVE	NONPROFIT	GAIN	EXPANSION STATE
OHIO	MOLINA HEALTHCARE OF OHIO INC.	REGION 5	\$1.2 B+	\$425+	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
OHIO	PARAMOUNT ADVANTAGE	REGION 5	\$600M TO \$1.2 B	\$290 TO \$425	MEDICAID ONLY	LESS THAN FIVE	NONPROFIT	GAIN	EXPANSION STATE
OHIO	UNITEDHEALTHCARE CMNTY (OH)	REGION 5	\$1.2 B+	\$425+	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
OREGON	PROVIDENCE HEALTH ASSURANCE	REGION 10	\$10M TO \$250M	\$290 TO \$425	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	GAIN	EXPANSION STATE

MILLIMAN RESEARCH REPORT

STATE	MCO	CMS REGION	ANNUAL REVENUE	REVENUE PMPM	MCO TYPE	MULTISTATE OPERATIONS	FINANCIAL STRUCTURE	GAIN OR LOSS	EXPANSION STATUS
OREGON	TRILLIUM CMNTY HEALTH PLAN INC	REGION 10	\$250M TO \$600M	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
PENNSYLVANIA	AETNA BETTER HEALTH INC. (PA)	REGION 3	\$600M TO \$1.2 B	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
PENNSYLVANIA	GATEWAY HEALTH PLAN INC.	REGION 3	\$1.2 B+	\$425+	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	GAIN	EXPANSION STATE
PENNSYLVANIA	GEISINGER HEALTH PLAN	REGION 3	\$600M TO \$1.2 B	\$290 TO \$425	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	GAIN	EXPANSION STATE
PENNSYLVANIA	HEALTH PARTNERS PLANS INC.	REGION 3	\$1.2 B+	\$425+	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	GAIN	EXPANSION STATE
PENNSYLVANIA	UNITEDHEALTHCARE OF PA INC.	REGION 3	\$600M TO \$1.2 B	\$425+	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
PENNSYLVANIA	UPMC FOR YOU INC.	REGION 3	\$1.2 B+	\$425+	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	GAIN	EXPANSION STATE
PUERTO RICO	MMM MULTI HEALTH LLC	REGION 2	\$250M TO \$600M	\$0 TO \$290	MEDICAID ONLY	LESS THAN FIVE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
PUERTO RICO	MOLINA HEALTHCARE OF PR INC.	REGION 2	\$600M TO \$1.2 B	\$0 TO \$290	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	LOSS	NON-EXPANSION STATE
PUERTO RICO	TRIPLE-S SALUD INC.	REGION 2	\$600M TO \$1.2 B	\$0 TO \$290	MEDICAID OTHER	LESS THAN FIVE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
RHODE ISLAND	NEIGHBORHOOD HEALTH PLAN OF RI	REGION 1	\$1.2 B+	\$425+	MEDICAID ONLY	LESS THAN FIVE	NONPROFIT	LOSS	EXPANSION STATE
RHODE ISLAND	UNITEDHEALTHCARE (NEW ENGLAND)	REGION 1	\$250M TO \$600M	\$425+	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
SOUTH CAROLINA	ABSOLUTE TOTAL CARE INC.	REGION 4	\$250M TO \$600M	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	LOSS	NON-EXPANSION STATE
SOUTH CAROLINA	BLUECHOICE HEALTHPLAN OF SC	REGION 4	\$10M TO \$250M	\$0 TO \$290	MEDICAID OTHER	LESS THAN FIVE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
SOUTH CAROLINA	MOLINA HEALTHCARE OF SC LLC	REGION 4	\$250M TO \$600M	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	LOSS	NON-EXPANSION STATE
SOUTH CAROLINA	SELECT HEALTH OF SC INC.	REGION 4	\$1.2 B+	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
SOUTH CAROLINA	WELL CARE OF SOUTH CAROLINA INC	REGION 4	\$250M TO \$600M	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
TENNESSEE	AMERIGROUP TENNESSEE INC.	REGION 4	\$1.2 B+	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
TENNESSEE	UNITEDHEALTHCARE PLAN	REGION 4	\$1.2 B+	\$290 TO \$425	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	LOSS	NON-EXPANSION STATE
TENNESSEE	VOLUNTEER STATE HLTH PLAN INC	REGION 4	\$1.2 B+	\$290 TO \$425	MEDICAID ONLY	LESS THAN FIVE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
TEXAS	AETNA BETTER HEALTH OF TX INC.	REGION 6	\$250M TO \$600M	\$0 TO \$290	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
TEXAS	AMERIGROUP INSURANCE CO.	REGION 6	\$600M TO \$1.2 B	\$425+	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
TEXAS	AMERIGROUP TEXAS INC.	REGION 6	\$1.2 B+	\$290 TO \$425	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
TEXAS	BANKERS RESERVE LIFE INS CO.	REGION 6	\$1.2 B+	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	LOSS	NON-EXPANSION STATE
TEXAS	CHRISTUS HEALTH PLAN	REGION 6	\$10M TO \$250M	\$0 TO \$290	MEDICAID OTHER	LESS THAN FIVE	FOR-PROFIT	LOSS	NON-EXPANSION STATE
TEXAS	COMMUNITY FIRST HLTH PLANS INC	REGION 6	\$250M TO \$600M	\$290 TO \$425	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	LOSS	NON-EXPANSION STATE
TEXAS	COMMUNITY HEALTH CHOICE INC	REGION 6	\$10M TO \$250M	\$0 TO \$290	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	LOSS	NON-EXPANSION STATE
TEXAS	COMMUNITY HEALTH CHOICE TX INC	REGION 6	\$600M TO \$1.2 B	\$0 TO \$290	MEDICAID ONLY	LESS THAN FIVE	NONPROFIT	LOSS	NON-EXPANSION STATE

MILLIMAN RESEARCH REPORT

STATE	MCO	CMS REGION	ANNUAL REVENUE	REVENUE PMPM	MCO TYPE	MULTISTATE OPERATIONS	FINANCIAL STRUCTURE	GAIN OR LOSS	EXPANSION STATUS
TEXAS	COOK CHILDREN'S HEALTH PLAN	REGION 6	\$250M TO \$600M	\$290 TO \$425	MEDICAID ONLY	LESS THAN FIVE	NONPROFIT	LOSS	NON-EXPANSION STATE
TEXAS	DRISCOLL CHILDREN'S HLTH PLAN	REGION 6	\$600M TO \$1.2 B	\$290 TO \$425	MEDICAID ONLY	LESS THAN FIVE	NONPROFIT	GAIN	NON-EXPANSION STATE
TEXAS	EL PASO HEALTH	REGION 6	\$10M TO \$250M	\$0 TO \$290	MEDICAID ONLY	LESS THAN FIVE	NONPROFIT	GAIN	NON-EXPANSION STATE
TEXAS	HEALTHSPRING L&H INSURANCE CO.	REGION 6	\$600M TO \$1.2 B	\$425+	MEDICAID OTHER	LESS THAN FIVE	FOR-PROFIT	LOSS	NON-EXPANSION STATE
TEXAS	MOLINA HLTHCR OF TEXAS INC.	REGION 6	\$1.2 B+	\$425+	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	LOSS	NON-EXPANSION STATE
TEXAS	SCOTT & WHITE HEALTH PLAN	REGION 6	\$10M TO \$250M	\$0 TO \$290	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	GAIN	NON-EXPANSION STATE
TEXAS	SENDERO HEALTH PLANS INC	REGION 6	\$10M TO \$250M	\$0 TO \$290	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	LOSS	NON-EXPANSION STATE
TEXAS	SETON HEALTH PLAN INC.	REGION 6	\$10M TO \$250M	\$0 TO \$290	MEDICAID OTHER	LESS THAN FIVE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
TEXAS	SHA L.L.C.	REGION 6	\$250M TO \$600M	\$0 TO \$290	MEDICAID OTHER	LESS THAN FIVE	FOR-PROFIT	LOSS	NON-EXPANSION STATE
TEXAS	SUPERIOR HEALTHPLAN INC.	REGION 6	\$1.2 B+	\$425+	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
TEXAS	TEXAS CHILDREN'S HLTH PLAN INC	REGION 6	\$1.2 B+	\$290 TO \$425	MEDICAID ONLY	LESS THAN FIVE	NONPROFIT	LOSS	NON-EXPANSION STATE
TEXAS	UNITEDHEALTHCARE CMNTY (TX)	REGION 6	\$1.2 B+	\$425+	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	LOSS	NON-EXPANSION STATE
TEXAS	PARKLAND CMNTY HEALTH PLAN INC	REGION 6	\$250M TO \$600M	\$0 TO \$290	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	GAIN	NON-EXPANSION STATE
UTAH	HEALTH CHOICE UTAH INC	REGION 8	\$10M TO \$250M	\$0 TO \$290	MEDICAID ONLY	LESS THAN FIVE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
UTAH	MOLINA HEALTHCARE OF UTAH INC.	REGION 8	\$10M TO \$250M	\$0 TO \$290	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
UTAH	SELECTHEALTH INC.	REGION 8	\$250M TO \$600M	\$0 TO \$290	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	GAIN	NON-EXPANSION STATE
VIRGINIA	COVENTRY HLTHCARE OF VA INC	REGION 3	\$250M TO \$600M	\$425+	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
VIRGINIA	HEALTHKEEPERS INC.	REGION 3	\$1.2 B+	\$290 TO \$425	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
VIRGINIA	INOVA HEALTH PLAN LLC	REGION 3	\$10M TO \$250M	\$0 TO \$290	MEDICAID ONLY	LESS THAN FIVE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
VIRGINIA	OPTIMA HEALTH PLAN	REGION 3	\$600M TO \$1.2 B	\$290 TO \$425	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	GAIN	NON-EXPANSION STATE
VIRGINIA	VIRGINIA PREMIER HLTH PLAN INC	REGION 3	\$1.2 B+	\$425+	MEDICAID ONLY	LESS THAN FIVE	NONPROFIT	GAIN	NON-EXPANSION STATE
WASHINGTON	AMERIGROUP WASHINGTON INC.	REGION 10	\$250M TO \$600M	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
WASHINGTON	COMMUNITY HEALTH PLAN OF WA	REGION 10	\$600M TO \$1.2 B	\$0 TO \$290	MEDICAID ONLY	LESS THAN FIVE	NONPROFIT	GAIN	EXPANSION STATE
WASHINGTON	COORDINATED CARE OF WA INC.	REGION 10	\$600M TO \$1.2 B	\$0 TO \$290	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	LOSS	EXPANSION STATE
WASHINGTON	MOLINA HEALTHCARE OF WA INC.	REGION 10	\$1.2 B+	\$0 TO \$290	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
WASHINGTON	UNITEDHEALTHCARE OF WA INC.	REGION 10	\$600M TO \$1.2 B	\$290 TO \$425	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
WEST VIRGINIA	COVENTRY HEALTH CARE OF WV INC	REGION 3	\$250M TO \$600M	\$290 TO \$425	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
WEST VIRGINIA	HEALTH PLAN OF WV INC.	REGION 3	\$250M TO \$600M	\$290 TO \$425	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	LOSS	EXPANSION STATE

MILLIMAN RESEARCH REPORT

STATE	MCO	CMS REGION	ANNUAL REVENUE	REVENUE PMPM	MCO TYPE	MULTISTATE OPERATIONS	FINANCIAL STRUCTURE	GAIN OR LOSS	EXPANSION STATUS
WEST VIRGINIA	UNICARE HEALTH PLAN OF WV INC.	REGION 3	\$250M TO \$600M	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	EXPANSION STATE
WEST VIRGINIA	WV FAMILY HEALTH PLAN INC.	REGION 3	\$250M TO \$600M	\$290 TO \$425	MEDICAID ONLY	LESS THAN FIVE	FOR-PROFIT	GAIN	EXPANSION STATE
WISCONSIN	CHILDREN'S CMNTY HLTH PLAN INC.	REGION 5	\$10M TO \$250M	\$0 TO \$290	MEDICAID ONLY	LESS THAN FIVE	NONPROFIT	LOSS	NON-EXPANSION STATE
WISCONSIN	COMPCARE HEALTH SVCS INS CORP.	REGION 5	\$10M TO \$250M	\$0 TO \$290	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
WISCONSIN	DEAN HEALTH PLAN INC.	REGION 5	\$10M TO \$250M	\$0 TO \$290	MEDICAID OTHER	LESS THAN FIVE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
WISCONSIN	GROUP HLTH COOP OF EAU CLAIRE	REGION 5	\$10M TO \$250M	\$0 TO \$290	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	GAIN	NON-EXPANSION STATE
WISCONSIN	GRP HLTH COOP OF SOUTH CENTRAL	REGION 5	\$10M TO \$250M	\$0 TO \$290	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	LOSS	NON-EXPANSION STATE
WISCONSIN	GUNDERSEN HEALTH PLAN INC.	REGION 5	\$10M TO \$250M	\$0 TO \$290	MEDICAID OTHER	LESS THAN FIVE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
WISCONSIN	HEALTH TRADITION HEALTH PLAN	REGION 5	\$10M TO \$250M	\$0 TO \$290	MEDICAID OTHER	LESS THAN FIVE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
WISCONSIN	INDEPENDENT CARE HEALTH PLAN	REGION 5	\$10M TO \$250M	\$290 TO \$425	MEDICAID OTHER	LESS THAN FIVE	FOR-PROFIT	LOSS	NON-EXPANSION STATE
WISCONSIN	MANAGED HEALTH SVCS INS CORP.	REGION 5	\$10M TO \$250M	\$290 TO \$425	MEDICAID ONLY	FIVE OR MORE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
WISCONSIN	MERCYCARE HMO INC.	REGION 5	\$10M TO \$250M	\$0 TO \$290	MEDICAID OTHER	LESS THAN FIVE	FOR-PROFIT	LOSS	NON-EXPANSION STATE
WISCONSIN	MOLINA HEALTHCARE OF WI INC.	REGION 5	\$10M TO \$250M	\$0 TO \$290	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	GAIN	NON-EXPANSION STATE
WISCONSIN	NETWORK HEALTH PLAN	REGION 5	\$10M TO \$250M	\$0 TO \$290	MEDICAID OTHER	LESS THAN FIVE	FOR-PROFIT	LOSS	NON-EXPANSION STATE
WISCONSIN	PHYSICIANS PLUS INSURANCE CORP	REGION 5	\$10M TO \$250M	\$0 TO \$290	MEDICAID OTHER	LESS THAN FIVE	FOR-PROFIT	LOSS	NON-EXPANSION STATE
WISCONSIN	SECURITY HEALTH PLAN OF WI INC	REGION 5	\$10M TO \$250M	\$0 TO \$290	MEDICAID OTHER	LESS THAN FIVE	NONPROFIT	GAIN	NON-EXPANSION STATE
WISCONSIN	TRILOGY HEALTH INSURANCE INC.	REGION 5	\$10M TO \$250M	\$0 TO \$290	MEDICAID ONLY	LESS THAN FIVE	FOR-PROFIT	LOSS	NON-EXPANSION STATE
WISCONSIN	UNITEDHEALTHCARE OF WI INC.	REGION 5	\$250M TO \$600M	\$0 TO \$290	MEDICAID OTHER	FIVE OR MORE	FOR-PROFIT	LOSS	NON-EXPANSION STATE
WISCONSIN	UNITY HEALTH PLANS INS CORP.	REGION 5	\$10M TO \$250M	\$0 TO \$290	MEDICAID OTHER	LESS THAN FIVE	FOR-PROFIT	GAIN	NON-EXPANSION STATE

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The authors have developed an expertise in the financial forecasting, pricing, reporting, and reserving of all types of health insurance, including Medicaid and commercial populations. Much of their experience is focused on Medicaid managed care consulting for both state Medicaid programs and Medicaid managed care plans in more than 15 states and territories.

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Building blocks: Block grants, per capita caps, and Medicaid reform

Recent changes in the U.S. political environment have once again stirred up discussions of major reforms to the healthcare market. While a main topic in news discussions has been proposed reforms to health insurance exchanges created by the Patient Protection and Affordable Care Act (ACA), Medicaid reform has the potential to affect more people than any other source of coverage.

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Republican Medicaid reform proposals have thus far focused on converting federal funding from the current approach of proportional federal and state financing to either block grants or per capita caps. While these funding approaches may sound relatively straightforward, understanding the implications of such changes requires consideration of several factors.

In this paper, we have broken down the detailed considerations into two primary categories: initial benchmark development and annual growth rates. Defining the assumptions and methodologies used to establish benchmarks and growth rates is key to aligning service cost with funding under alternative federal financing for Medicaid. Without consideration of these concepts, the actual cost of Medicaid relative to the federal budget for Medicaid will begin to diverge, and the gap may become wider over time. As this theoretical funding gap emerges, states will be at increased risk for funding additional program cost.

Figure 1 identifies detailed assumptions to consider for each key category. Additional details for each are included in the last section of this paper. Figure 2 illustrates state and federal expenditure growth risks and considerations for current funding, block grants, and per capita caps.

FIGURE 1: CONSIDERATIONS TO ALTERNATIVE FUNDING

KEY CATEGORIES OF CONSIDERATION	
INITIAL BENCHMARK DEVELOPMENT	ANNUAL GROWTH RATES
Category of aid	Medical cost & utilization trends
Age, gender, & care settings	Emerging medical treatment cost
Geographic cost variance	Historical or prospective trends
Base data period & source	Aging demographics
Benefit design	Population reliance on Medicaid
Federal medical assistance percentage	Economic growth rates/indices

FIGURE 2: POTENTIAL RISK BY FUNDING SOURCE

FUNDING ATTRIBUTE	FUNDING SCENARIOS		
	CURRENT	BLOCK GRANT	PER CAPITA CAP
FUNDING LIMIT	None, as long as regulatory requirements are met	Established in advance, unchanged with population growth or environmental factors	Established in advance, varies based on population size, but unchanged for environmental factors
STATE VS. FEDERAL MEDICAL GROWTH RATE	Consistent growth rates	Federal growth defined in advance State growth leveraged based on overall growth	Federal growth is mitigated. State growth may be leveraged if cost per enrollee is more than projected
ENROLLMENT MIX CHANGE RISK	Federal risk varies by FMAP. If populations with higher federal match increase at a faster rate than the overall population, state share of bill is lower. For states with low/no expansion enrollment, match is relatively steady.	Federal government transfers risk to states	Depends on structure. If cap is per capita on an aid category basis, then risk is similar to current. If not based on aid category, mix of members by aid category could negatively impact states as population groups age and LTSS become more prevalent.
ENROLLMENT GROWTH RISK	Consistent risk state versus federal	Federal government transfers risk to states	Consistent risk state versus federal, as long as new members don't have higher-than-average cost.

Medicaid background

Medicaid was originally established as an assistance program for medical coverage of low-income children and disabled citizens under Title XIX of the Social Security Act (the Act) in 1965. It offers comprehensive healthcare coverage for a range of federally mandated and state-optional services. Each state administers its own program and has some autonomy over eligibility criteria and benefit packages. The program is regulated federally by the Centers for Medicare and Medicaid Services (CMS). Medicaid coverage has been revised over time, with the two most notable expansions being Title XXI of the Act, creating the State Children's Health Insurance Program (CHIP)—covering children of families with higher income levels—and the optional extension of coverage under the Patient Protection and Affordable Care Act (ACA), effectively covering adults up to 138% of the federal poverty level (FPL).¹ Medicaid and CHIP covered an average of 74.6 million people in federal fiscal year (FFY) 2015, as the largest single source of healthcare coverage in the country. Figure 3 illustrates a breakdown of enrollment and expenditures on the financial outlook for Medicaid, published by CMS and based on the two most recently available actuarial reports.^{2,3} It should be noted that the managed care expenditure value includes both acute and long-term services and supports (LTSS). LTSS expenditures appear to decrease in FFY 2015, however this is related to a shift from FFS to managed care delivery of these services. Values also include nonclaim costs such as Medicare premiums/cost sharing and Part D clawback; however, we have excluded disproportionate share hospital (DSH) payments as well as adjustments and administration cost.

FIGURE 3: MEDICAID ENROLLMENT AND EXPENDITURES

AVERAGE MONTHLY ENROLLMENT (# MILLIONS)		
POPULATION GROUP	FFY 2014	FFY 2015
Children	27.5	28.1
Elderly/disabled adults	15.6	16.1
Other adults	19.3	24.3
Title XXI CHIP ⁴	5.9	6.1

¹ MACPAC (March 2016). "Federal Legislative Milestones in Medicaid and CHIP." Retrieved January 25, 2017, from <https://www.macpac.gov/federal-legislative-milestones-in-medicare-and-chip/>

² CMS, Office of the Actuary (2015). "2015 Actuarial Report on the Financial Outlook for Medicaid." Report to Congress. Retrieved January 25, 2017, from <https://www.medicare.gov/medicaid-financing-and-reimbursement/downloads/medicaid-actuarial-report-2015.pdf>

³ CMS, Office of the Actuary (2016). "2016 Actuarial Report on the Financial Outlook for Medicaid." Report to Congress. Retrieved January 25, 2017, from <https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/ActuarialStudies/Downloads/MedicaidReport2016.pdf>

⁴ Note: Title XXI enrollment and expenditure values are on a calendar year basis via CMS.gov, NHE Tables, Table 2.¹

⁵ Medicaid.gov, "Financing & Reimbursement." Retrieved January 25, 2017, from <https://www.medicare.gov/medicaid-chip-program-information/by-topics/financing-and-reimbursement/financing-and-reimbursement.html>

ANNUAL EXPENDITURES (\$ BILLIONS)

EXPENSE CATEGORY	FFY 2014	FFY 2015
FFS ACUTE	\$ 152.1	\$ 160.4
FFS LTSS	\$ 116.2	\$ 112.8
MANAGED CARE	\$ 191.6	\$ 243.0
TITLE XXI CHIP ⁴	\$ 13.2	\$ 14.6

Current funding

Medicaid is jointly funded by state and federal governments. The federal medical assistance percentage (FMAP) varies by state and is updated each year based primarily on state per capita income relative to the national average. FMAP rates range between 50% and 75% of traditional Medicaid service cost (as of federal fiscal year 2017), and states must comply with federally mandated eligibility and covered service requirements to receive federal funding.⁵ Federal participation also varies for different cohorts of the population, providing enhanced FMAPs for CHIP-eligible members under the CHIP Reauthorization Act of 2009 (CHIPRA) and for newly eligible adults under ACA expansion.⁶ Under the current financing system, states pay all medical cost incurred by Medicaid enrollees and submit quarterly expenses on a cash basis to CMS to draw down federal funds at the established FMAP rate.⁷ Figure 4 illustrates historical annual federal and state/local Medicaid expenditures, federal Medicaid funding as a percentage of total Medicaid expenditures, and the federal and state/local Medicaid expenditure growth rates from calendar year 2010 to 2015.⁸ It should be noted that the American Recovery and Reinvestment Act of 2009 (ARRA) provided for enhanced federal funding from October 2008 through June 2011.⁹ The increase in federal funding for 2014 and 2015 is primarily linked to expansion of eligibility for low-income adults under the ACA.

⁵ MACPAC (2016). "Federal Match Rate Exceptions." Retrieved January 25, 2017, from <https://www.macpac.gov/federal-match-rate-exceptions/>

⁶ CMS.gov (March 23, 2012). "Medicaid Budget & Expenditure System (MBES)." Retrieved January 25, 2017, from <https://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/MedicaidBudgetExpendSystem/index.html>

⁷ CMS.gov (December 5, 2016). "NHE Tables, Table 3." Retrieved January 25, 2017, via <https://www.cms.gov/research-statistics-data-and-systems/statistics-trends-and-reports/nationalhealthexpenddata/nationalhealthaccountshistorical.html>

⁸ Kaiser Family Foundation (June 2011). "Enhanced Medical Match Rates Expire in June 2011." Kaiser Commission on Key Facts. Retrieved January 25, 2017, from <https://kaiserfamilyfoundation.files.wordpress.com/2013/01/8205.pdf>

FIGURE 4: MEDICAID SPENDING BY FUNDING SOURCE

CY	FEDERAL	STATE /LOCAL	% FEDERAL	FEDERAL GROWTH RATE	STATE GROWTH RATE
2010	\$ 266.4	\$ 130.9	67%	7.7%	3.0%
2011	\$ 247.1	\$ 159.6	61%	(7.2%)	21.9%
2012	\$ 243.3	\$ 179.5	58%	(1.5%)	12.5%
2013	\$ 256.9	\$ 188.5	58%	5.6%	5.0%
2014	\$ 305.5	\$ 191.7	61%	18.9%	1.7%
2015	\$ 344.0	\$ 201.1	63%	12.6%	4.9%

There is no fixed limit to Medicaid spending as long as states meet regulatory requirements for approved populations and services, so federal and state spending will increase proportionally when enrollment grows or medical costs trend upward. This open-ended financing system is difficult to forecast, and is a key reason that alternative funding proposals have been introduced from time to time. With the current transition to Republican control of the White House and Congress, Medicaid reform has again become a key topic of discussion.

Proposed funding

Two alternative federal funding methods have been proposed by current Republican leadership: block grants and per capita caps. This paper discusses these methods at a high level, offering important considerations in setting up alternate funding.

BLOCK GRANTS

Block grants are a funding mechanism that has been proposed at various times for Medicaid, and it serves as the current funding methodology for some nonmedical assistance social programs, e.g., Temporary Assistance for Needy Families (TANF).¹⁰ Under this proposal, each state would receive a predetermined amount of funds each year to provide Medicaid coverage. Unlike the current funding system, states would be responsible for funding all costs in excess of the federally established block grant budget amount rather than receive a proportional federal match for all cost. From a federal perspective, this makes budget planning more predictable, as the amount of funding provided to the states is formulaic and known in advance each year.

To establish block grant funding, historical medical cost would be the most likely place to start in establishing a baseline for first-year funding. Updates would be made annually for subsequent years based on formulaic trend factors intended to account for growth in both enrollment and cost of care as well as potential

adjustments related to FMAP changes. In an effort to constrain federal spending on the Medicaid program, annual trend rates may be set lower than historical Medicaid trends.

Although a trend methodology has not been defined at this point, it is likely that the funding growth would not tie directly to the many complex factors that drive the growth of Medicaid expenditures. The gross domestic product (GDP) has been discussed as a potential growth rate, but may not reflect trends in aggregate future medical costs. For example, in times of recession, Medicaid enrollment often increases as unemployment increases and more people meet the income-based eligibility criteria. Additionally, the growth of block grant funding may not reflect ever-changing factors that drive per enrollee costs of healthcare, such as the emergence of new, expensive (but innovative) therapies and the aging demographics of the U.S. population.

It is a common expectation that if federal funding changes to block grants, states are likely to be given more flexibility to design more cost-effective programs, such as establishing state-determined eligibility requirement minimums and covered services.¹¹ Each state is currently responsible for the administration of its Medicaid program. States have some latitude in designing their programs. However, in order to receive federal funding they must comply with mandated eligibility and benefit coverage requirements. If a block grant methodology is employed, based on previously proposed models and without modifying current Medicaid State Plan benefits, federal costs will increase at a defined rate, while state cost increases may be leveraged disproportionately to subsidize remaining cost as total program cost increases. To the extent that program cost requires additional state funding, the removal of certain CMS requirements could mitigate budget concerns. Some examples of added flexibility include:

- Eligibility:
 - Establish wait lists instead of immediately enrolling qualified individuals.
 - Eliminate retroactive coverage for periods prior to enrollment.
 - Eliminate coverage entirely for certain populations.
- Benefit reductions:
 - Reduce benefits below current federally-mandated levels.
 - Allow alternative benefit plans with limited services for certain cohorts.

¹⁰ <http://www.cbpp.org/research/policy-basics-an-introduction-to-tanf>

¹¹ <http://www.cbpp.org/blog/medicaid-block-grant-would-add-millions-to-uninsured-and-underinsured>

- Member engagement:
 - Introduce health savings accounts, marginal premiums, or cost sharing for certain services

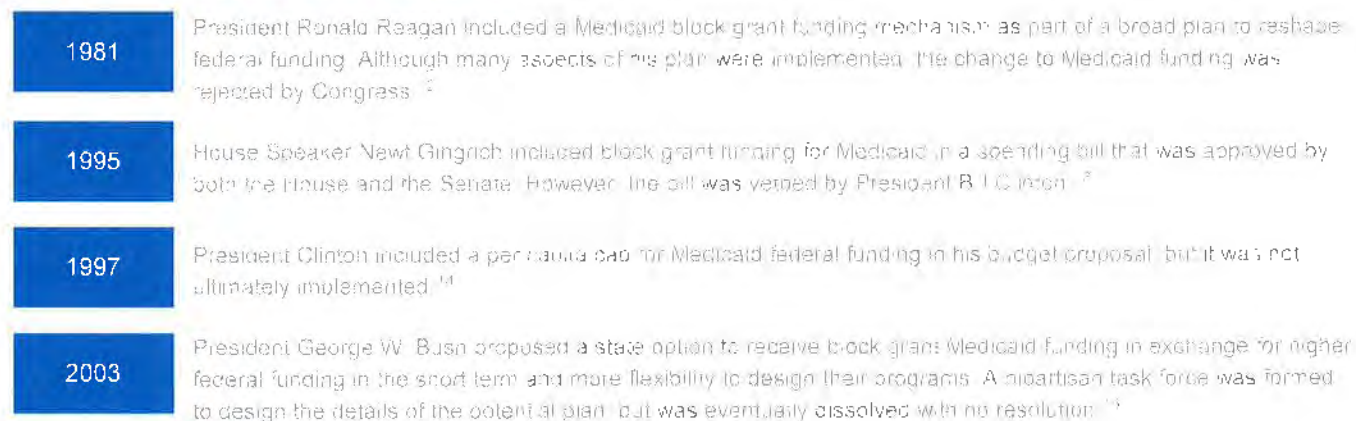
Block grant funding may serve as an upper limit to federal funding, working in a manner consistent with current reporting and reimbursement. For example, total expenditures would be reported quarterly, and states would draw down funds up to the

maximum allowable amount, based on FMAP rates. This structure would eliminate the incentive for states to make drastic cuts and use this federal funding for other purposes

History of Proposals

Figure 5 illustrates a history of proposals for funding Medicaid using a block grant or per capita cap funding mechanism.

FIGURE 5: TIMELINE OF BLOCK GRANT PROPOSALS



Example of block grant funding for medical services

A prominent example of using block grants to finance a public healthcare system is the U.K.'s National Health Service (NHS), which currently provides comprehensive healthcare coverage for more than 64 million people across the U.K.¹⁶ Each year, Parliament decides on the amount of money that will be allocated to fund the program, and most of this funding is ultimately passed on to locally focused Clinical Commissioning Groups (CCGs), which purchase care from providers participating in the system.

However, over the last several years, a lack of funding to appropriately compensate providers has become an increasingly exacerbated issue. Overall in fiscal year 2016, NHS providers recorded a deficit of approximately GBP 2.45 billion, as costs for providers outpaced the total financing allocated from Parliament through the NHS. Furthermore, many individual CCGs and their corresponding local providers realized deficits that were even larger proportionally, as the formulas used to allocate funding to each CCG did not necessarily match the needs of the providers

in the CCG. These formulas utilize information such as age/gender, poverty levels, and population size in order to decide how much healthcare funding each CCG should need to pay providers. However, to the extent that actual healthcare costs differ from the costs predicted by these formulas, there will be a disconnect between funding for providers and their actual costs.¹⁷

The funding issues surrounding the NHS have been well publicized and are a major focus of the current political discussion in the U.K. The experiences of the program highlight the importance of assumptions in determining the overall growth of block grant funding, as well as how that funding is allocated to localized purchasers of healthcare, where states, managed care entities, and medical providers will all be at risk for funding deficits.

¹² National Council on Disability, Appendix A: The History of Federal Block Grant Authorities: A Medicaid Block Grant Program: Implications for People with Disabilities, Retrieved January 25, 2017, from http://www.ncd.gov/publications/2013/05222013/05222013_AppendixA

¹³ Newkirk, W. & Daicy, S. (December 19, 1995). As promised, Clinton vetoes 2 Republican spending bills. Chicago Tribune, Retrieved January 25, 2017, from http://articles.chicagotribune.com/1995-12-19/news/9512190217_1_clinton-vetoes-gop-agenda-republican-spending-bills

¹⁴ Robert Wood Johnson Foundation (April 18, 2013). Health Policy Brief: Per Capita Caps in Medicaid. Health Affairs, Retrieved January 25, 2017, from http://healthaffairs.org/healthpolicybriefs/brief_pdfs/healthpolicybrief_90.pdf

¹⁵ National Council on Disability, Appendix A: Ibid.

¹⁶ NHS (April 13, 2016). The NHS in England: About the National Health Service (NHS). Retrieved January 25, 2017, from <http://www.nhs.uk/NHSEngland/thenhs/about/Pages/overview.aspx>

¹⁷ Dunn, P. et al. (July 2016). Deficits in the NHS 2016. The King's Fund. Retrieved January 25, 2017, from https://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/Deficits_in_the_NHS_Kings_Fund_July_2016_1.pdf

PER CAPITA CAPS

Another proposed methodology for determining federal Medicaid financing involves appropriating funds based on per capita caps. Under this proposal, a maximum baseline amount of funding is established per Medicaid enrollee, and this per enrollee cost cap would grow based on formulaic cost of care trend factors consistent with block grant funding. Also consistent with block grant funding, per capita cap funding would require states to cover all spending in excess of the cap. Unlike block grant funding, however, per capita caps allow for enrollment growth without penalizing state budgets. While the per capita cap mitigates state risk of higher-than-expected enrollment growth, it also means that federal funding amounts are not as predictable as they are under a block grant system.

Like block grant funding, a baseline per capita amount would be established for each state in the first year, and then the per capita amount would be calculated using a predetermined

formulaic growth methodology. The applied growth factors would be designed to reflect an estimated increase in cost per enrollee. If the growth rates were to be set lower than historical Medicaid cost trends, it may reduce federal spending over time.

Although the per capita cap system is designed to allow for adjustments in funding as the number of people enrolled in Medicaid changes, it is not yet known whether the growth methodology would account for changes in factors such as the mix of members enrolled in Medicaid. Healthcare utilization and the average cost of services incurred by members vary by the demographics of the member, such as age, gender, or institutional care needs. For example, members requiring LTSS will be much more expensive than an average healthy child.

Current proposals

Figure 6 summarizes proposals that have been introduced for per capita cap funding.

FIGURE 6: PER CAPITA CAP PROPOSALS

Orrin Hatch/
Fred Upton

Senator Orrin Hatch and Representative Fred Upton published "Making Medicaid Work" on May 1, 2013, which discussed per capita caps as a means to create a sustainable budget while recognizing different healthcare needs of various Medicaid cohorts. The plan addressed specific considerations such as aid category and geographic spending differences, and it identifies payment categories that may be excluded from the caps, such as DSH, graduate medical education (GME), Medicare/Medicaid dual-eligible cost sharing, and other partial benefit programs.⁴⁸

Paul Ryan

Speaker Paul Ryan's "A Better Way," released on June 22, 2016, outlines a state option to select per capita caps or block grant funding, proposing that per capita cap amounts would be determined and trended forward each year for each of four major beneficiary categories: aged, blind and disabled, children, and adults. The details of developing these initial caps and annual updates have not yet been established.⁴⁹

Example of per capita cap funding

Section 1115 demonstration waivers are a long-standing example of how per capita funding could operate within Medicaid. Currently, Section 1115 of the Act allows the Secretary of the U.S. Department of Health and Human Services (HHS) to approve experimental programs that provide services or eligibility for populations not traditionally covered by Medicaid.⁵⁰ In order to attain approval, states must show budget neutrality to the federal government, meaning that required federal funding must be no more than the estimated federal cost without the program.

Typically, budget neutrality is demonstrated by establishing a benchmark per capita cost based on historical experience, which is trended forward using a calculated growth rate assumption. The actual per capita cost under the waiver program is reported on a regular basis and must prove lower than the trended benchmark cost to satisfy neutrality requirements. If actual per capita spending exceeds the trended benchmark amount, states must either cover the excess cost or submit a formal request to modify the benchmarks, based on extenuating circumstances.

In applying for Section 1115 waiver approval, states establish benchmark per capita cost and growth rates using historical

⁴⁸ Upton, F. & Hatch, O. (May 1, 2013). "Making Medicaid Work." U.S. Congress. Retrieved January 25, 2017, from <http://energycommerce.house.gov/sites/repUBLICans.energycommerce.house.gov/files/analysis/20130501Medicaid.pdf>

⁴⁹ A Better Way (June 22, 2016). "A Better Way." Retrieved January 25, 2017, from https://abetterway.speaker.gov/_assets/pdf/ABetterWay-HealthCare-PolicyPaper.pdf

⁵⁰ For more information on Section 1115 demonstrations, please see <https://www.medicaid.gov/medicaid/section-1115-demo/about-1115/index.html>

experience by Medicaid population. This mitigates the risk of varying growth rates in populations that have significantly different per capita costs. This process is analogous to how a per capita funding mechanism could work, although it is not clear whether states would be responsible for providing the initial assumptions or if the federal government would determine these assumptions.

Key considerations

We have outlined several technical and general considerations for stakeholders involved in converting the federal funding to an alternative proposal. If overlooked, these factors could cause inequities among states or a divergence in medical expenditure and funding growth rates over time.

INITIAL BENCHMARK RATES

Initial benchmarks must be set under either a block grant or per capita cap federal funding scheme. In developing benchmarks, there are many assumptions that must be addressed

- **Category of aid:** Medicaid enrollees qualify for coverage based on age, income, and disability requirements, and each category has a different utilization and cost profile (e.g., low-income adult, aged, disabled, child). There are currently federal minimum requirements for mandatory coverage, and many states also extend coverage to optional groups. As a result of state demographics and varying eligibility standards, each state has a different mix of participants by category of aid. Average costs across category differ because of differences in health status, dual status (both Medicare and Medicaid coverage), disability status, or covered services. For example, the average cost of a low-income adult was approximately \$340 per member per month (PMPM) whereas the average cost of a disabled adult was approximately \$1,540 PMPM, based on national FFY 2011 data.²¹ Current FMAPs also vary by category of aid, which creates additional differences in funding by state.

Age/gender: The demographic makeup of individual state populations varies, causing differences in each state's Medicaid enrollment demographics. Even within a particular category of aid, costs can differ substantially by age and/or gender. For example, the average cost for children under the age of 2 can be four times as much as for children between 2 and 18.²²

Geographic differences in cost: The average cost of Medicaid services tends to be higher in urban areas relative to rural areas. Additionally, there are definite regional differences in healthcare markets across states because of provider or service availability, provider practice patterns, local healthcare purchasing nuances, and differences in covered populations or benefits. Medicaid reimbursement levels vary significantly by state as well, ranging from 38% of Medicare to 141% of Medicare rates for physician services.²³ For example, the average annual Medicaid cost for a child in FFY 2011 was greater than \$3,950 in five states, three of which are in the Northeast (one is Alaska), while the average annual cost for a child was less than \$2,000 in six states, all but one of which are in the Midwest or Mountain West regions.²⁴

Base data period: In developing benchmark rates, the time period of historical base data will be critical. There are regular disruptions in state Medicaid programs, such as economic recessions, eligibility changes, benefit coverage changes, delivery system changes, and reimbursement manual changes that may happen at any time. It is difficult to establish a clean historical data period, and adjustments for disruption will vary by state and time frame.

Benefit design: Each state currently defines the covered benefits for each aid category, subject to federal minimums. States may offer optional services to enrolled members, and this coverage may vary from year to year (e.g., adult dental or vision services). It is unclear whether historical data will be adjusted to establish a benefit minimum across all states to establish coverage consistency for developing benchmark rates, or if all states will be considered at their currently defined benefit levels.

State or national data: A central ideological consideration to the development benchmarks is whether national or state-specific historical experience will be used. We have outlined demographic and economic reasons for variance in current Medicaid spending by state. However, even after adjusting for these known differences, spending by state may still differ significantly because of current program administration and local healthcare market considerations. In a recent letter to MACPAC commissioners, Republican leaders have requested that MACPAC "immediately initiate work to report on optional eligibility groups covered and optional benefits in

²¹ Kaiser Family Foundation (2011). Medicaid Spending per Full-Benefit Enrollee: State Health Facts. Retrieved January 25, 2017, from <http://kff.org/medicaid/state-indicator/medicaid-spending-per-full-benefit-enrollee/?currentTimeframe=0&selectedDistributions=aged--individuals-with-disabilities--adults--children--total>

²² Millman Health Cost Guidelines™

²³ Urban Institute (2014). Reversing the Medicaid Fee Bump: How Much Could Medicaid Physician Fees for Primary Care Fall in 2015? Retrieved January 25,

2017, from <http://www.urban.org/sites/default/files/alfresco/publication-pdfs/2000025-Reversing-the-Medicaid-Fee-Bump.pdf>

²⁴ Kaiser Family Foundation (2011). Medicaid Spending per Full-Benefit Enrollee: State Health Facts. Retrieved January 25, 2017, from <http://kff.org/medicaid/state-indicator/medicaid-spending-per-enrollee/?currentTimeframe=0>

each state Medicaid program...." focusing on federal and state expenditures for each.²⁵

- **Long-term care settings:** One key difference in program administration across states is the management of enrollees receiving LTSS. Some states provide comprehensive home and community-based services (HCBS) in an effort to reduce long-term institutional costs. The mix of institutionalized versus community-based care settings varies by state, which lends to the variable average LTSS cost by state. If initial benchmarks are set based on current spending, then states with reduced LTSS spending will receive less funding, which is due to efforts they have already undertaken, and they will have lower opportunity for additional savings.
- **FMAP:** FMAP rates currently differ by category of aid (discussed above) and by state, based on each state's per capita income. It is not clear how federal funding will be allocated among states under a block grant or per capita cap arrangement. Will state-specific funding remain consistent with historical federal expenditures for each state, or will changes in state per capita income influence the funding formula?

ANNUAL GROWTH RATE SELECTION

Once benchmark rates have been established, they will need to be trended forward to the funding period and updated annually thereafter.

- **Cost and utilization trends:** Cost (inflation) and utilization trends tend to vary by service category, and various cohorts of the population have different service mix needs. It may not be appropriate to choose a single trend that applies equally to all populations and services, because it may create winners and losers across states. Trends that reflect a state-specific mix of services and population demographics could facilitate funding that tracks more consistently with expenditures.
- **Emerging treatments:** New prescription drug treatments have been a major component of recent healthcare trends. Two recent examples are Harvoni® and Orkambi®, which are newly developed and expensive treatments for hepatitis C and cystic fibrosis, respectively. In 2015, Medicaid spent

more on Harvoni® than any other pharmaceutical product.²⁶ High-cost treatments such as these can have a significant impact on Medicaid spending. The impact will vary by state, depending upon the prevalence of the treated condition within the Medicaid population.

- **Historical vs. prospective trends:** Historical trends are not always appropriate indicators of changes in future healthcare costs. Medical trends can change significantly over time because of emerging treatments, patent expirations for brand-name drugs, changes in medical practice patterns, changes in patient preference, or regulatory changes. However, historical trends are objective and can be simple to calculate.

Prospective trends applied to block grant or per capita cap funding may better capture future changes in Medicaid cost. However, prospective trends must be estimated in advance, are imprecise, and require judgment. They are subject to variability because of random fluctuation and unforeseen events.
- **Aging demographics:** Based on an analysis of recent American Community Survey (ACS) data, the size of the 65-to-74 age group increased 23% nationally between 2011 and 2014.²⁷ Over the next decade, that population cohort will age into the 75+ age group and increase the demand for LTSS, an expensive component of current Medicaid spending. The increased cost of providing LTSS for this population could vary dramatically by state. Based on the ACS data, the five states with the largest growth in the 65-to-74 population experienced a 30% increase in that age group, while the bottom five states experienced a 17% increase. Changes in post-retirement geographic migration patterns and proximity of family members could cause additional variation.
- **Reliance on Medicaid:** Many external factors could increase the reliance on Medicaid. For example, an economic downturn could increase the unemployment rate and reliance on Medicaid for healthcare coverage. Another example is the recent rate increases in the private long-term care (LTC) insurance market, which may make private coverage less prevalent.^{28,29} Reduced rates of private coverage would put even more burden on Medicaid programs to fund LTSS expenditures.

²⁵ For January 11, 2017. Congressional letter to the Medicaid and CHIP Payment and Access Commission, signed by Orrin Hatch, Greg Walden, Tim Murphy, and Michael Burgess.

²⁶ Silverman, E. (November 14, 2016). Gilead hepatitis C pill was biggest 2015 drug cost for Medicare, Medicaid. STAT. Retrieved January 25, 2017, from <https://www.statnews.com/pharma/2016/11/14/medicare-medicare-gilead-hepatitis/>

²⁷ U.S. Census Bureau. American Community Survey. Subject Tables. Retrieved January 25, 2017, from <https://www.census.gov/acs/www/data/data-tables-and-tools/subject-tables/>

²⁸ Hebig, J. & Bergerson, M.A. (March 13, 2016). Benefit reductions to offset LTC premium increases: Evaluation options. Long Term Care News. Retrieved January 25, 2017, from <http://us.milliman.com/insight/2016/Benefit-reductions-to-offset-LTC-premium-increases-Evaluating-options/>

²⁹ Gleckman, H. (August 1, 2016). Another big long-term care insurance premium hike. Forbes. Retrieved January 25, 2017, from <http://www.forbes.com/sites/howardgleckman/2016/08/01/another-big-long-term-care-insurance-premium-hike/#1758c48de882>

- **Growth rate comparison:** Recent proposals for Medicaid funding changes have identified non-healthcare inflationary trends to be used as potential growth rates applied to block grant or per capita cap benchmarks. In "A Better Way," Speaker Ryan has proposed linking Medicaid funding growth to GDP growth. Other proposals have suggested linking growth to consumer price index (CPI) growth rates. Figure 7 illustrates national healthcare expenditure (NHE) growth, Medicaid expenditure growth, GDP growth rate, annual CPI for All Urban Consumers (CPI-U) change, annual CPI for medical costs (CPI-M) change from 2010 through 2015. Note that Medicaid trends vary by state from year to year, and the trends in the first three columns below include population growth, with Medicaid enrollment growth exceeding the overall population growth underlying NHE and GDP growth rates.

FIGURE 7: MEDICAL AND NONMEDICAL ANNUAL CHANGE

CY	NHE ³⁰	MEDICAID ³¹	GDP ³²	CPI-U ³³	CPI-M ³⁴
2010	4.1%	6.1%	3.8%	1.6%	3.5%
2011	3.5%	2.4%	3.7%	3.2%	3.1%
2012	4.0%	3.9%	4.1%	2.1%	3.9%
2013	2.9%	5.4%	3.3%	1.5%	3.1%
2014	5.3%	11.6%	4.2%	1.6%	2.4%
2015	5.8%	9.7%	3.7%	0.1%	2.4%
Avg Ann.	4.3%	6.5%	3.8%	1.7%	3.1%

Impact on state programs

Medicaid spending accounts for approximately 20% of individual state budgets costs, second in size only to education spending.³⁵ Because of how much state spending is tied to Medicaid, there tend to be significant pressures on state lawmakers to reduce Medicaid spending when budgets are tight. Moving to a fixed federal funding formula rather than the current proportional federal funding could increase state responsibility and introduce additional variability to state funding requirements. As pressures to reduce state spending continue, significant policy decisions will need to be made to reduce budgetary requirements. Some examples of budgetary actions include:

- Managed care implementation or expansion
- Encouraging provider engagement through accountable care arrangements or delivery system reform incentive payment (DSRIP) programs
- Reducing provider reimbursement rates
- Eliminating optionally covered populations or benefits
- Implementing service limits
- Introducing member wait lists for coverage

In addition to the potential policy changes already noted, states may begin turning to alternative benefit designs for administering Medicaid. Some states have applied for Section 1115 demonstration waivers to provide such coverage to the Medicaid expansion population and other nondisabled adults. Two examples of these demonstrations include the Healthy Indiana Plan (HIP) and Healthy Ohio.

- **HIP 2.0:** Indiana expanded its Medicaid program to cover low-income adults in 2014. Rather than establishing coverage under the Medicaid State Plan, the state introduced a demonstration waiver with a benefit design that includes patient financial responsibility unlike standard Medicaid benefits. In February 2015, the demonstration was expanded to cover all nondisabled adults. HIP 2.0 introduced member contributions to a Personal Wellness and Responsibility (POWER) account, requiring members to make monthly contributions or face a coverage lockout (six months for members who have income above the federal poverty level) or a reduced benefit package (for members who have income below the federal poverty level).³⁶
- **Healthy Ohio:** Ohio expanded its Medicaid program to cover low-income adults under the Medicaid State Plan. However, in 2016 it applied to establish a demonstration waiver that would have modified the benefit plan for Ohio's Medicaid expansion population to add health savings accounts (HSAs), annual deductibles, copayments, monthly premiums, a healthy behavior program, a workforce requirement, and disenrollment from coverage for noncompliance. The demonstration application was denied by CMS with the reported concerns that it undermined affordability, leading to a reduction in access to coverage by the Medicaid expansion population.³⁷

³⁰ CMS.gov, NHE Tables, *ibid.*, Table 1.

³¹ CMS.gov, NHE Tables, *ibid.*, Table 21.

³² CMS.gov, NHE Tables, *ibid.*, Table 1.

³³ CMS.gov (July 14, 2015), NHE Projections 2015-2025, Tables, Table 1. Retrieved January 25, 2017, via <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsProjected.html>

³⁴ Bureau of Labor Statistics, Consumer Price Index: Medical Care Service Services. Retrieved January 25, 2017, via <https://data.bls.gov/cgi-bin/surveymost?cu>

³⁵ National Association of State Budget Officers (2016), State Expenditure Report. Retrieved January 25, 2017, from <https://www.nasbo.org/reports-data/state-expenditure-report>

³⁶ Kaiser Family Foundation (February 3, 2015), Medicaid Expansion in Indiana: Fact Sheet. Retrieved January 25, 2017, from <http://kff.org/medicaid/fact-sheet/medicaid-expansion-in-indiana/>

³⁷ Kaiser Family Foundation (September 21, 2016), CMS's Denial of Proposed Changes to Medicaid Expansion in Ohio: Fact Sheet. Retrieved January 25, 2017, from <http://kff.org/health-reform/fact-sheet/proposed-changes-to-medicicaid-expansion-in-ohio/>

Some states have also begun to explore delivery system reforms that focus on incentivizing providers to promote the health of the population while finding efficiencies in medical care. Two examples of such reforms include Oregon's Coordinated Care Organizations (CCOs) and New York's Medicaid Reform Transformation (MRT) Waiver.

- **Oregon CCOs:** Oregon used an 1115 waiver to implement system reform by creating provider-owned entities that are responsible for physical and behavioral health needs of Medicaid patients. Under Oregon's waiver, CCOs are assigned a global budget to cover medical service cost based on the enrolled population. A percentage of the budget is withheld until the end of a measurement period, after which a CCO can earn back withheld funds by meeting certain quality indicators.³⁸
- **New York MRT:** New York implemented a DSRIP program in 2015 under the authority of an 1115 waiver. Funding is used to incentivize provider groups to develop coordinated care networks to achieve improvements in patient outcomes and overall population health. Provider groups choose clinical outcomes which are measured over time, and DSRIP funding pools are shared among providers based on improvement in quality based on chosen measures.³⁹

As states seek out ways to continue offering Medicaid coverage under more limited federal funding, reformed coverage terms such as those introduced in the Indiana and Ohio demonstration waiver applications may become more widespread, increasing the financial participation and engagement of Medicaid enrollees in their healthcare purchasing. H.R. 277, a new ACA repeal bill, has been released by the Republican Study Committee and would permit states to offer HSA-like accounts for Medicaid enrollees.

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³⁸ Health Affairs Blog (September 11, 2014), Year Zero: Leaders at Oregon's CCOs Share Lessons from the Early Days, Retrieved January 25, 2017 from <http://healthaffairs.org/blog/2014/09/11/year-zero-leaders-at-oregons-ccos-share-lessons-from-the-early-days/>

³⁹ Kaiser Family Foundation (September 29, 2014), Overview of Delivery System Reform Incentive Payment (DSRIP) Waivers, Retrieved January 25, 2017 from <http://kff.org/report-section/an-overview-of-delivery-system-reform-incentive-payment-waivers-issue-brief/>

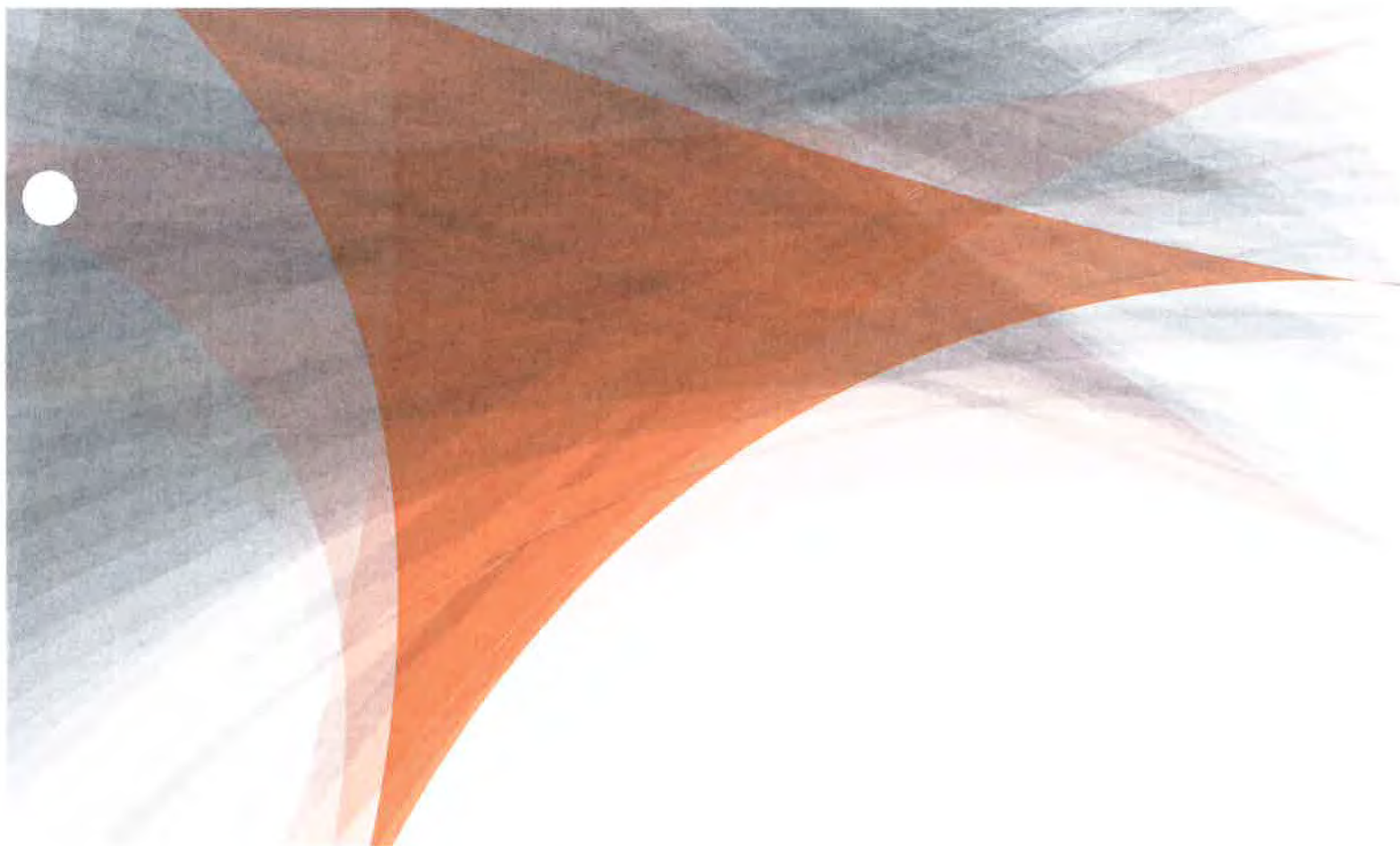
MILLIMAN RESEARCH REPORT

Medical loss ratio (MLR) in the “Mega Reg”

Medicaid adopts comprehensive
MLR standards

June 2016

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Executive Summary

With the release of the final Medicaid and Children's Health Insurance Program (CHIP) managed care rule (final rule),¹ medical loss ratios (MLRs) will become a required part of financial reporting for Medicaid managed care programs in every state, effective for managed care contracts beginning on or after July 1, 2017. In addition, the final rule specifies that the capitation rates for rate periods beginning on or after July 1, 2019, must be developed in a way that projects a MLR of at least 85% for participating managed care organizations (MCOs). In terms of potential impact to the Medicaid managed care industry, more than 75% of MCOs analyzed in Milliman's annual review of Medicaid-focused insurers had an estimated MLR above the 85% federal minimum in calendar year 2015.²

The creation of minimum MLR standards for Medicaid managed care follows the precedents set by the commercial health insurance market³ in 2011 and the Medicare Advantage (MA) market⁴ in 2014. While the Medicaid MLR formula itself largely follows the commercial and MA MLR formula, by including quality improvement expenses in the numerator and excluding most fees and taxes from the denominator of the calculation, there are key differences between the Medicaid minimum MLR standards and those currently established for the commercial and MA markets.

- States are encouraged but not required to collect capitation rate refunds when MCO MLRs are less than a minimum requirement
- States have the authority to determine the level of granularity for calculating the MLR, i.e., at the MCO population level—e.g., Temporary Assistance for Needy Families (TANF), disabled, Patient Protection and Affordable Care Act (ACA) expansion—or at the contract level (aggregation of financial results across populations)
- States are given the flexibility to determine other key issues, such as whether to require new MCOs to follow MLR reporting requirements in the first year participating in the state's Medicaid program

KEY REPORTING ISSUES

While the Medicaid MLR formula is generally consistent with the commercial and MA markets, unique features of Medicaid managed care programs will necessitate state Medicaid agencies and Medicaid MCOs to consider the following issues in the development and completion of MLR reporting:

- *Defining quality improvement (QI) activities.* QI activities are an important component of the MLR calculation that increase the MLR results. However, identifying QI activities may pose a challenge for Medicaid MCOs, particularly those that do not have commercial or MA business. MCOs may need to revamp cost accounting methods to differentiate QI expenses and develop reasonable allocation methodologies to allocate QI expenses to lines of business.
- *Provider pass-through payments and reimbursement.* Provider supplemental pass-through payments are unique to the Medicaid market, where MCOs pass through capitation revenue directly to providers with no MCO financial risk. These payments are excluded from both the numerator and denominator in the MLR calculation. As these pass-through payments are phased out over the next 10 years, as required by the regulation, MCO provider reimbursement may need to increase. While pass-through payments are not incorporated into the numerator or denominator of the MLR formula, changes in provider reimbursement will affect claims costs and therefore the MLR calculation. States and MCOs will need to consider the impact provider reimbursement changes have on the MLR calculation.

1. CMS, CMS-2392-F, Final Rule: Medicaid and Children's Health Insurance Program (CHIP) Programs, Medicaid Managed Care, CHIP Delivered as Managed Care, and Reinsurance Related to Third Party Liability.
2. Palmer, J. & Petric, C. (May 2015). Medicaid Risk-Based Managed Care: Analysis of Financial Results for 2015. Milliman Research Report. Retrieved June 17, 2016, from <http://www.milliman.com/uploadedFiles/insight/2016/medicaid-risk-based-managed-care-analysis-2015.pdf>
3. Center for Consumer Information and Insurance Oversight (December 2, 2011). Final Rule Fact Sheet: Medical Loss Ratio: Getting Your Money's Worth on Health Insurance. Retrieved June 17, 2016, from <https://www.cms.gov/CCIIO/Resources/Fact-Sheets-and-FAQs/mlrfinalrule.html>
4. Medicare (May 25, 2016). Medical Loss Ratio. Retrieved June 17, 2016, from <https://www.cms.gov/Medicare/Medicare-Advantage/Plan-Payment/medicallossratio.html>

- *Potential for future clarification.* Certain aspects of the MLR calculation are still unknown at this point and will need to be monitored by states and their MCO partners. For example, certain 1115 waiver benefit arrangements, such as beneficiary savings accounts, may require clarification from CMS on how they should be treated in the MLR formula.

MLR RATE-SETTING CONSIDERATIONS

Actuarial soundness guidelines in the final rule require Medicaid capitation rates to be developed in a manner such that MCOs would reasonably achieve a MLR of at least 85% for the rate year for contracts effective on or after July 1, 2019. The MLR requirement, by itself, does not determinate rate adequacy, rather it limits the percentage of revenue that can be used for administrative expenses (excluding quality improvement expenses) and margin. While MCO financial performance historically has been reviewed as a part of the Medicaid rate-setting process, the final rule may result in further scrutiny by CMS in terms of reviewing historical and projected MCO MLRs.

IMPACT TO MEDICAID MANAGED CARE INDUSTRY

The most significant change arising from the new MLR requirements may be the standardized MLR reporting requirements that are likely to provide more informative, transparent, and consistent information to support the rate-setting process, as well as aid CMS in the evaluation of Medicaid managed care programs across the nation. Between now and the implementation dates, state Medicaid agencies will need to familiarize themselves with the MLR mechanism and make key decisions within the flexibility granted by the rule. States will also need to work with MCOs to enhance financial reporting standards for MCOs to report MLRs and for the state to use for rate setting.

Introduction

CMS has indicated MLR reporting standards are necessary for Medicaid managed care programs to assist in assessing the reasonability of capitation rates and to promote fiscal stewardship by allowing better insight into how the MCO capitation revenue is spent.⁵ For managed care contracts beginning on or after July 1, 2017, in all states, the new MLR requirements stipulate:

- Actual MLR for each MCO will be reported within 12 months following the end of the rating period
- Resulting MLR reports must be posted annually on each state's public website
- States are encouraged but not required to collect refunds from MCOs not meeting a minimum MLR requirement

Additionally, effective for contracts beginning on or after July 1, 2019, the projected MLR for the managed care capitation rates must be at least 85% to be considered “actuarially sound” (along with several other requirements).

While the final rule implements a federally mandated minimum MLR requirement for Medicaid managed care programs, many states have already imposed minimum MLRs or profit caps. According to a recent Kaiser Family Foundation report,⁶ as of July 1, 2015, 23 states and the District of Columbia are known to have minimum MLRs or profit caps in at least one Medicaid program. Under the final rule, states will maintain the discretion to adopt minimum MLRs above the 85% federal requirement.

The remainder of this report dissects the specifics of the Medicaid MLR formula and its implications for state Medicaid agencies and Medicaid MCOs, including:

- Medicaid MLR formula calculation components
- Medicaid MLR formula compared with commercial and Medicare versions
- Medicaid-specific MLR considerations
- How MLR requirements will need to be incorporated in the capitation rate-setting process.

⁵ Federal Register (May 5, 2016). Medicaid and Children's Health Insurance Program (CHIP) Programs: Medicaid Managed Care, CHIP Delivered in Managed Care, and Revisions Related to Third Party Liability. Retrieved June 12, 2016, from <https://www.federalregister.gov/articles/2016/05/06/2016-09581/medicaid-and-childrens-health-insurance-program-chip-programs-medicare-managed-care-chip-delivered>

⁶ Kaiser Family Foundation (July 1, 2015). Minimum Medical Loss Ratio (MLR) Policies for MCOs: State Health Facts. Retrieved June 12, 2016, from <http://www.kff.org/other/state-medicare-managed-care-loss-ratio-policies-for-mco/>. Eighteen states and the District of Columbia have a minimum MLR and an additional five states have profit caps.

The formulation of MLR

CALCULATION OVERVIEW

The Medicaid MLR formula includes claims, quality improvement expenses, and fraud prevention activities in the numerator, premium less taxes and fees in the denominator, and a credibility adjustment added to the overall calculation:

$$\frac{\text{Claims + Quality Improvement (QI) Expense + Fraud Prevention Activities}^*}{\text{Premium - Taxes and Fees}} + \text{Credibility Adjustment}$$

The inclusion of fraud prevention activities in the MLR formula is contingent on their inclusion in the commercial market MLR, which follows their inclusion at present time.

The inclusion of QI expenses in the numerator and the deduction of taxes and fees from the denominator is likely to result in the calculated MLR percentage being higher than a traditional MLR calculation, as illustrated below:

Components: Premium Revenue = \$300; Claims = \$255, QI = \$3, Fraud Prevention = \$0 Taxes/Fees = \$10

Traditional Loss Ratio: \$255/\$300=85%

MLR:(\$255+\$3)/(\$300-\$10)=89%

Based on calendar-year 2015 statutory statements, we estimate that QI expenses range from approximately 1% to 3% of earned premium for the typical Medicaid MCO.

Supplemental pass-through payments (discussed further in a later section) and prior-year MLR refunds are excluded from both the numerator and denominator of the calculation.

INCURRED CLAIMS

In addition to patient care typically classified as claims, incurred claims include value-added services that are non-state plan services, claims refunds and reversals, pharmacy rebates, other admitted and non-admitted receivables, and state solvency fund payments or receipts. To the extent that MCOs have sub-capitated arrangements with providers, any portion of the payment that is explicitly attributed to the provision of administrative services by the provider should be excluded from incurred claims in the MLR numerator. In light of this treatment of sub-capitated arrangements within the MLR formula, MCOs may want to renegotiate their sub-capitation contracts or develop an expense allocation methodology between benefit and non-benefit expenses.

Additionally, the final rule's definition of incurred claims includes "claim payments recovered through fraud reduction efforts, not to exceed the amount of fraud reduction expenses," as well as specifically stating that incurred claims expenses exclude the amount related to fraud prevention activities.⁷

QUALITY IMPROVEMENT EXPENSE

The inclusion of QI expenses in the numerator of the MLR calculation is intended to incentivize investments in QI, recognizing its ability to improve the delivery of healthcare to consumers. Quality improvement expenses include care coordination, case management, outreach and community integration, and health information technology expense. When CMS developed regulations for identifying QI in the Medicare Advantage MLR formula,⁸ they aligned with the definitions already promulgated under the commercial MLR regulations. CMS has taken the same approach for Medicaid programs, and augmented the definition to include Medicaid managed care external quality review activities. Further discussion on defining QI activities is provided later in our report.

⁷ Section 4228(a)(4) defines fraud prevention activities.

⁸ Published in Title 42 CFR 422.2, part X §422.24(j).

FRAUD PREVENTION ACTIVITIES

The final rule also includes fraud prevention activities in the numerator of the MLR calculation, stipulated on whether such activities are included in the numerator of the MLR calculation for the commercial market. To fully understand this issue, it is necessary to review prior regulatory guidance in the commercial market:

- In the development of the final MLR regulations for the commercial market, CMS considered whether or not to include fraud prevention activities in the numerator of the MLR calculation, but ultimately decided against their inclusion⁹
- This debate was revisited in the release of the Notice of Benefit and Payment Parameters for 2017, but CMS ultimately decided to maintain its exclusion of fraud prevention activities from the MLR numerator¹⁰

Because the commercial market has not adopted the inclusion of fraud prevention activities in the numerator of the MLR calculation, the current Medicaid MLR calculation also excludes these amounts at present time.

However, it is important to remember that the definition of incurred claims does include claims payments recovered through fraud reduction efforts, not to exceed the amount of fraud reduction expenses (consistent with the commercial market). These amounts are excluded from the definition of fraud prevention activities in the final rule.

PREMIUM REVENUE

In addition to regular capitation payments, premium also includes other revenue received by MCOs, such as maternity kick payments, retrospective capitation adjustments, risk adjustment payments, risk corridor settlements, and “withholds” of premium, which may be earned back through pay-for-performance arrangements. Unlike withholds, bonus incentives paid to MCOs (which are paid in addition to the actuarially sound capitation rate) are excluded from premiums. This treatment of bonus incentives within the MLR formula should be considered by states in their approaches to MCO pay-for-performance methodologies. As MCOs have to update MLR reporting every time the state applies a retrospective capitation adjustment, state Medicaid agencies should strive to make withhold payments to MCOs in a timely manner to allow incorporation of the payments into the MCOs’ MLR reports, which are due 12 months after the completion of the contract period.

Additionally, the regulations specifically address member cost sharing, which is typically collected by providers without the MCO’s direct control or monitoring. CMS recognizes situations where an MCO may intentionally waive the provider’s responsibility to collect member copays. In these cases, the amount of uncollected copayments must be added to MCO revenue in the denominator, thereby reducing the MLR. From our experience, waived copays are generally less than 0.5% of total MCO premium revenue. To the extent a MCO is waiving copays, it may need to develop information system capabilities to report waived copay amounts correctly for MLR reporting purposes.

TAXES AND FEES

The deduction for taxes and fees in the denominator helps to control for external drivers of cost that are out of the MCO’s control, as well as to standardize the measurement of MLR among states that have different taxes and fees. The deduction generally includes all taxes and fees incurred by the MCO, except for income taxes on investment income and capital gains, federal employment taxes, and fees associated with regulatory penalties and fines. MCOs that are exempt from federal income taxes may include community benefit expenses up to the greater of 3% or the highest premium tax rate in the state multiplied by earned premium.

9. Federal Register (December 7, 2011), 45 CFR Part 158: Medical Loss Ratio Requirements Under the Patient Protection and Affordable Care Act, Final Rule, p. 75572. Retrieved June 17, 2016, from <https://www.gpo.gov/fdsys/pkg/FR-2011-12-07/pdf/2011-31289.pdf>

10. Federal Register (March 8, 2016), 45 CFR Parts 144, 147, 153, et al.: Patient Protection and Affordable Care Act: HHS Notice of Benefit and Payment Parameters for 2017: Final Rule, p. 12329. Retrieved June 17, 2016, from <https://www.gpo.gov/fdsys/pkg/FR-2016-03-08/pdf/2016-04439.pdf>

CREDIBILITY ADJUSTMENT

The incurred claims experience for MCOs with lower enrollment will generally exhibit higher variability from expected levels. As a result, these MCOs may run a greater risk of falling below the minimum MLR in any particular year, which would be due to random fluctuations alone. Recognizing that elevated volatility could increase MLR refunds over time for smaller MCOs, CMS intends to develop and release credibility adjustments with principles similar to those used in the commercial market. The MLR credibility adjustment is an additive adjustment that effectively increases the MLR based on each MCO's member months, with larger credibility adjustments applied to MCOs with lower member months. The adjustment will be added to the MLR before comparing it with the minimum (e.g., 85%), and will not exceed 10% for any MCO. The smallest MCOs, with implied credibility adjustments over 10%, will be deemed non-credible and will not be required to pay refunds due to minimum MLR requirements.

Appendix 1 illustrates the credibility tables utilized in the commercial and Medicare Advantage markets.

MLR implementation in the commercial and Medicare Advantage markets

The Medicaid MLR formula is similar to the commercial and Medicare Advantage formulas, with a few key differences, as summarized in Figure 1.

FIGURE 1: COMPARISON OF MEDICAID, MEDICARE ADVANTAGE, AND COMMERCIAL FORMULAS

	MEDICAID	MEDICARE ADVANTAGE	COMMERCIAL
Minimum MLR threshold and granularity of measurement	At least 85%, enforcement at state's option, level of granularity at state's discretion.	85%, for each contract	80% individual 80% small group 85% large group
MLR Refunds	If enforced by the state, to be paid proportionally to state and federal based on federal medical assistance percentage.	Remittances paid to CMS.	Paid to individuals and group policyholders.
Treatment of risk adjustment in MLR calculation	Accounted for in denominator/cap rate.	Accounted for in denominator/CMS risk-adjusted revenue.	Transfer payment included in numerator.
MLR measurement period	One year.	One year.	Three years.
New MCOs reporting of MLR	State decision; considered a new MCO for only one year (even if a partial year).	Subject to MLR	MCOs with at least 50% new members may defer experience.

In general, states have greater flexibility to establish Medicaid MLR reporting guidelines and the granularity of the calculation itself than is allowed in the commercial and Medicare Advantage markets. States must develop the MLR calculation method, under the prescribed guidelines, and submit it to CMS for review and approval. States may require a minimum MLR higher than 85%. The optional enforcement of MLR refunds is in sharp contrast to the mandatory enforcement in the Medicare Advantage programs and the commercial market.

States also have the option to select the population groupings ("granularity of measurement") at which the MLR calculation will be reported, with the default set as all populations covered under the MCO contract reported together. The level at which the MLR is calculated may impact any state minimum MLR rebates. States may work with their MCO partners to determine the appropriate level of detail that balances rebate impact, usefulness of the reported MLRs, and administrative difficulties.

State Medicaid agencies may determine whether MCOs need to complete MLR reporting in their first year operating in a state. The regulation clarifies that a MCO is only considered "new" for one reporting year, even if the first year was a partial year. It also clarifies that a MCO is not considered "new" when it adds an eligibility category or expands its service area. These exemptions do not occur in the Medicare Advantage program; in the commercial market, MCOs with at least 50% new members may defer their experience and include it in a subsequent MLR reporting year.

Special considerations in MLR formula

As with most Medicaid topics, certain state-specific program characteristics need to be considered when reviewing the reported MLR results. This section outlines considerations that may materially impact the reported MLR in different states.

DEFINING QUALITY IMPROVEMENT EXPENSES

QI activities must be designed to improve health quality, be directed toward individual enrollees or segments of enrollees (or non-enrollees, if no additional cost accrues to enrollees to create those benefits), and be grounded in evidence-based medicine, widely accepted best clinical practice, or criteria issued by recognized bodies. QI activities are characterized as those activities which: (a) improve health outcomes,¹¹ (b) prevent hospital readmissions, (c) improve patient safety and reduce medical errors, (d) improve wellness and health promotion activities, and (e) enhance the use of health information technology (HIT) to improve the quality of care.¹²

CMS has also specifically excluded cost containment activities from QI, and this casts a broad net over activities that insurers routinely perform, such as concurrent and retrospective utilization review, fraud detection and prevention, development, execution, and management of provider networks, provider credentialing, establishing and maintaining a claims adjudication system, clinical data collection without subsequent data analysis, and customer service hotlines that address member nonclinical questions.

Process to define QI

Determining which activities qualify as QI may require clinical expertise, must stand up to audit, and should use definitions that are consistent from year to year. Generally, this process of defining QI activities requires creating acceptable cost accounting methodologies to identify QI and allocate their expenses. One suggested approach is to map the general ledger to QI categories in order to identify their scope and develop more refined cost accounting approaches, particularly if an identified QI activity is combined on the ledger together with non-QI expenses.

Company departments and programs may have functions that are not exclusively QI related. In addition, staff may perform both QI and non-QI activities. Finally, vendors and software may provide functions that cross into both QI and cost containment. As examples:

- Efforts to detect and prevent harmful prescription drug interactions among members would be considered QI
- However, a generic prescribing (substitution) program would probably not be considered QI because its focus is predominately on cost containment
- Discharge planning would probably be considered QI if its focus is on improving the recovery of the patient and reducing the risk of readmission, but would probably not be considered QI if its primary focus is on cost containment
- Preauthorization activities would probably not be considered QI
- However, evidence-based medical necessity review with prior authorization may be considered QI

11. Among commercial insurers in 2014, the average QI expense was approximately \$3 PMFM, of which nearly 50% was allocated to the improvement of health outcomes (effective case management, care coordination, chronic disease management, and medication and care compliance initiatives; identifying and addressing ethnic, cultural, or racial disparities in the effectiveness of identified best clinical practices; and evidence-based medicine, quality reporting and accreditation (e.g. directly related to quality of care activities)).

12. HIT expenses that are consistent with Medicare/Medicaid meaningful use requirements (45 CFR 158.151) may be treated as QI. These activities may include the provision of electronic health records and patient portals, and the monitoring, measuring, and reporting of clinical effectiveness measures. To this end, CMS has encouraged states to support the adoption of certified health information technology tool enables interoperability across providers and supports seamless care coordination for enrollees.

PASS-THROUGH PAYMENTS

While the managed Medicaid MLR formula was developed based on the definitions in the commercial and Medicare Advantage markets, there are certain unique aspects to the Medicaid market. One example of a situation requiring special consideration in the Medicaid managed care MLR formula is pass-through payments, which MCOs pass to providers with no MCO financial risk. Pass-through payments are state-directed payments to providers that historically were used to increase provider reimbursement from the MCO-contracted reimbursement rates to a higher reimbursement rate (often Medicare).

For purposes of the MLR calculation, the final rule excludes pass-through payments from both the numerator and the denominator, resulting in a lower MLR calculation. The impact of excluding these payments will vary depending on the extent states have historically used pass-through payments and for which provider types, as the final rule requires pass-through payments to be phased out over time, with different schedules for different provider types. The general treatment of supplemental payments is further discussed in another recently released Milliman issue brief.¹³

PROVIDER REIMBURSEMENT

A related consideration to the treatment of supplemental pass-through payments is the effect of provider reimbursement on the MLR calculation. Because provider reimbursement affects paid claims, the provider reimbursement has a direct impact on the MLR calculation. To the extent that the provider fee schedule is increased, the calculated MLR is likely to increase because the incurred claims amount will increase.

The Medicaid reimbursement levels may materially affect the MLR calculation, as shown in the following example:

$$\text{MLR} = \frac{\text{Incurred claims} + \text{QI}}{\text{Incurred claims portion of capitation} + \text{Administrative and margin component of capitation} - \text{Taxes and Fees}}$$

Scenario 1: The base incurred claims cost is \$255, assuming provider reimbursement is 60% of Medicare reimbursement, QI is \$3, and the administrative and margin component of capitation is \$45, which includes a \$10 provision for taxes and fees. Note that values reflect revenue and cost on a per member per month (PMPM) basis.

$$\frac{\$255 + \$3}{\$255 + \$45 - \$10} = 89\%$$

Scenario 2: Provider reimbursement is increased to 100% of Medicare reimbursement, resulting in an incurred claims cost of \$425.¹⁴

$$\frac{\$255 * (1/60\%) + \$3}{\$255 * (1/60\%) + \$45 - \$10 * (1/60\%)} = 94\%$$

The example illustrates how changes in Medicaid provider reimbursement may affect the MLR calculation. Supplemental pass-through payments must be phased out over the next 10 years, and if states choose to replace the funding with higher provider reimbursement levels, then it will be important to consider the corresponding impact on the MLR calculation. States with existing minimum MLR refund arrangements may consider increasing the minimum MLR threshold to the extent there is a significant increase in provider reimbursement.

Similarly, medical inflation is generally anticipated to be greater than wage inflation, resulting in the claims cost component of the capitation rate increasing at a faster rate than the administrative component. To the extent that this occurs, the reported medical loss ratios will naturally increase over time.

¹³ <https://www.milliman.com/insights/issue-briefs/pass-through-payments-guidance-in-triennial-Medicaid-managed-care-reform>

¹⁴ This adjustment is made to the base incurred claims as a rough approximation, for illustrative purposes only.

MEDICAID BENEFICIARY SAVINGS ACCOUNTS

One type of Medicaid benefit arrangement that is not explicitly addressed in the final rule is the Medicaid beneficiary account.¹⁵ In this arrangement, beneficiaries receive funds through a savings account, similar to health savings accounts or flexible savings accounts, which are used to cover their copayments.¹⁶ The savings accounts are then used to offset increased beneficiary cost-sharing requirements in the program. The overall program is intended to align beneficiary financial incentives toward a more efficient use of healthcare.

Payments into these accounts may be funded by the state (with matching federal dollars) and/or the Medicaid beneficiary, and payments are separate from the MCO's capitation rate. As the authors of this report interpret the rule, funds from these accounts that are used to pay for claims costs would not be considered a part of the MLR numerator, nor would the funding of the accounts be included in the denominator. The capitation rate paid to the MCOs is reduced by the amount of enhanced cost-sharing requirements in these benefit arrangements, and because the program is not likely to decrease MCOs' administrative costs, MCO-reported MLRs may be lower in states where such accounts are used extensively. The following simplified example illustrates the potential impact:

Scenario 1: The base incurred claims cost is \$255, QI is \$3, and the administrative and margin component of capitation is \$45, which includes a \$10 provision for taxes and fees. Note that values reflect revenue and cost on a PMPM basis.

$$\frac{\$255 + \$3}{\$255 + \$45 - \$10} = 89\%$$

Scenario 2: A beneficiary savings account is implemented, resulting in a \$50 reduction in the incurred claims cost component of the capitation rate.¹⁷

$$\frac{(\$255 - \$50) + \$3}{(\$255 - \$50) + \$45 - \$10} = 87\%$$

The impact of beneficiary savings accounts on the MLR calculation in this example is similar to the impact of supplemental payments, as both program structures effectively equally reduce amounts included in the numerator and denominator of the calculation.

MLR considerations in the rate-setting process

The final rule requires actuarially sound capitation rates effective on or after July 1, 2019, to have a projected MLR for participating MCOs of at least 85% for the rate year.¹⁸ The MLR requirement, by itself, does not determinate rate adequacy, rather it limits the percentage of revenue that can be used for administrative expenses (excluding quality improvement expenses) and margin.

While the final rule establishes a new requirement for managed care capitation rates, many states and their actuaries already consider historical and projected MCO financial performance during the rate-setting process. The next sections explore the use of historical MLR in rate setting, the process for projecting MLR in the rate period, and the potential impacts of the codification of the minimum MLR into the rate-setting process.

15. See http://www.in.gov/fssa/hip/files/DF-CS-100714_HIP_2.0-POWER-account-infographic_v1r12.pdf for an example of Indiana's program.

16. These program designs are currently implemented through 110 counties.

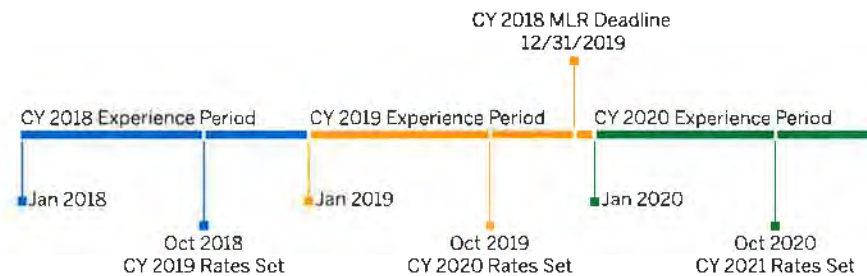
17. The adjustments made to the formula in the numerator are rough approximations. Actual administrative expenses only.

18. As defined by Section 432B.

USING HISTORICAL MLR RESULTS FOR RATE SETTING

Historical MLR results, based on the 12-month reporting deadline, may be three years older than the rating period when they are considered in the rate-setting process. Figure 2 shows an illustration of the MLR versus rate-setting timeline for calendar year (CY) contracts.

FIGURE 2: MLR VS. RATE-SETTING TIMELINE FOR CALENDAR YEAR CONTRACTS



Contracts on a CY basis need to report CY 2018 MLR experience by December 2019. By the time CY 2018 MLR reporting occurs, CY 2020 rates will probably already be developed and may have already been reviewed by CMS. As a result, CY 2018 historical MLRs will likely first be considered when developing CY 2021 rates, which is a three-year lag from the experience period. In order to incorporate three-year-old MLRs in the rate-setting process, adjustments will be needed to account for changes that have already occurred or are projected to change between the experience and rating periods, such as program and reimbursement changes. Additionally, it is likely that audited financial statements and other information provided by MCOs will provide a preliminary estimate of the final calculated CMS-defined MLR aggregated across all Medicaid-eligible populations. For example, the development of CY 2018 capitation rates should have such information available for the CY 2016 rate period.

Historical MLRs are a standardized measurement that may be used to identify potential rating issues in a given year or to identify repeated patterns over time. It is important to emphasize that MLR results are not the same as profit results, especially for MCOs with high or low expenses as a percentage of premium and for those with high amounts of quality improvement activities. If MLRs are below 85% or are excessively high (e.g., above 100% or a state-defined maximum MLR), questions will likely be asked during the CMS rate review process concerning how the rate development year is estimated to have different MLR results than the historical period.

If states choose to require MCOs to report MLRs at the aggregate level across all rate cells and managed care programs, it will be harder to identify where rates could be excessive at the rate cell level and to make appropriate adjustments to the rating period. This type of aggregate reporting could be especially challenging when there are many MCOs participating in the program.

RATING PERIOD MLR PROJECTIONS

Because CMS encourages but does not require states to adopt Medicaid MLR refunds, CMS may scrutinize projected MLRs in the capitation rate development more than commercial and Medicare Advantage products. In states without a MLR refund requirement, the capitation rate development may be the best way to prospectively control the percentage of premium used for patient care, administrative costs, and quality improvement activities.

While the state actuary should consider historical MLRs in the capitation rate development, a low or high historical MLR will not necessarily necessitate an increase or decrease in the final capitation rate amount. By CMS's definition of actuarial soundness, the capitation rate development should provide for reasonable, appropriate, and attainable costs incurred by a MCO, but the capitation rate certification is not applicable to a particular MCO. For example, to the extent MCOs' experience contained in the historical MLR reports reflects poor healthcare management practices, increasing the capitation rates by an amount to allow the MCOs to have more favorable financial experience, while not improving healthcare management efficiency, may not be warranted.

Some MLR components, like quality improvement activities, may be difficult to project by MCO, especially before historical results are available. States may need MCOs to provide projected amounts for certain components such as quality improvement expenses and taxes and fees, along with historical amounts to evaluate the projected amounts for reasonableness. Projected MLRs should be reviewed for each MCO to assess the degree of estimated variability across MCOs participating in the managed care program.

INFORMATION GAIN AND TRANSPARENCY

While the MLR requirement itself is not likely to significantly transform the Medicaid rate-setting process, the greater change to Medicaid managed care programs may come from the standardized MLR reporting requirements that are likely to provide more informative, consistent data to support the rate-setting process. Moreover, MLR reporting should make it easier to compare historical and projected rates between states,¹⁹ similar to how MLR reporting requirements have led to much greater visibility into commercial insurers' financial experience by line of business at the state level.²⁰

Conclusion

The MLR reporting requirements will give the public greater visibility on MCOs' expense structures, permit comparisons among MCOs, and allow for more direct comparisons among the Medicaid programs in each state.

Even though MLR reporting first applies to rating periods effective July 2017, and reporting does not occur for another 12 months after the rating period ends, there is much to start working on now to properly consider and prepare for the implementation of these MLR requirements. States and their MCO partners will need to begin to review the implications of the new MLR requirements and potential impacts to their Medicaid programs, and to make informed decisions within the flexibility each state has in implementing the requirements.

¹⁹ There will still be key differences to consider when comparing MLRs among states. For example, programs that do not cover prescription drugs may have lower MLRs compared with programs that do.

²⁰ See <http://us.milliman.com/uploadedFiles/insight/2016/2014-commercial-health-insurance.pdf> for more information.

Appendix 1

The commercial and Medicare Advantage credibility tables²¹ are shown below.

COMMERCIAL TABLE				MEDICARE ADVANTAGE TABLE		
MINIMUM LIFE YEARS BY LINE OF BUSINESS			ADDITIVE CREDIBILITY ADJUSTMENT	MINIMUM LIFE YEARS BY LINE OF BUSINESS		ADDITIVE CREDIBILITY ADJUSTMENT
INDIVIDUAL	SMALL GROUP	LARGE GROUP		MA & MA/PD	PART D STAND-ALONE	
BELOW 1,000	BELOW 1,000	BELOW 1,000	NON-CRED	BELOW 200	BELOW 400	NON-CRED
1,000	1,000	1,000	8.3%	200	400	8.4%
2,500	2,500	2,500	5.2%	500	1,000	5.3%
5,000	5,000	5,000	3.7%	1,000	2,000	3.7%
10,000	10,000	10,000	2.6%	2,000	4,000	2.6%
25,000	25,000	25,000	1.6%	5,000	10,000	1.7%
50,000	50,000	50,000	1.2%	10,000	20,000	1.2%
75,000	75,000	75,000	0.0%	15,000	30,000	1.0%
				ABOVE 15,000	ABOVE 30,000	0.0%

Linear interpolation is used to calculate credibility adjustments for intermediate life year counts within each range. As an example, if a health plan whose commercial small group line of business in a state has 12,000 average life years and a 79% MLR, then the credibility-adjusted MLR is calculated as:

$$79.0\% + 2.5\% = 81.5\%, \text{ WHERE } 2.5\% = [1.6\% \times (12,000 - 10,000) + 2.6\% \times (25,000 - 12,000)] \div (25,000 - 10,000)$$

The Medicare Advantage table has a "cliff" at the 1% credibility adjustment, and any enrollment count higher than 400 implies a 0% credibility adjustment. The commercial table allows for a situation that has not reached 0% credibility.



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Pass-through payment guidance in final Medicaid managed care regulations: Transitioning to value-based payments, delivery system reform, and required reimbursement

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As managed care has replaced fee-for-service (FFS) in the Medicaid market, states have often sought to replicate fee-for-service supplemental provider payment programs in managed care.

Supplemental payment programs, sometimes called upper payment limit (UPL) programs, constitute a major source of revenue for providers in many states. Pass-through payments are the primary mechanism currently used to retain supplemental payment funding in managed care.

Final Medicaid managed care regulations, released April 25, 2016,¹ confirm that pass-through payments will be restricted in the near future and ultimately eliminated. In this paper, we provide an overview of pass-through payment provisions in the new regulations, including the rationale and phase-out timing of the Centers for Medicare and Medicaid Services (CMS). We also discuss some of the difficulties the loss of pass-through payments will cause for states and providers and suggest a number of potential changes states can consider to mitigate the impact on managed care programs.

In this paper, we use the term “managed care plan” to mean a managed care organization (MCO), prepaid inpatient health plan (PIHP), or prepaid ambulatory health plan (PAHP), as referenced in the final Medicaid managed care regulation.

Overview of provisions

PASS-THROUGH PAYMENT DEFINITION

Pass-through payments are amounts paid to Medicaid managed care plans as supplemental payments or “add-ons” to the base capitation rate. The plans are required to pass through the add-on payment to designated contracted providers. Section 438.6(a) of final regulations defines pass-through payments

as any amount required by the state to be added to contracted payment rates between the managed care plans and providers that is not for any of the following purposes:

1. A specific service or benefit provided to a specific enrollee covered under the contract
2. Permissible provider payment methodologies outlined in §438.6(c)(1) of the final Medicaid managed care regulations
3. A sub-capitated payment arrangement for a specific set of services and enrollees covered under the contract
4. Graduate medical education (GME) payments
5. Federally qualified health center (FQHC) or rural health center (RHC) wraparound payments.

This definition is generally consistent with CMS's 2016 Medicaid Managed Care Rate Development Guide.

CMS UNDERLYING PRINCIPLES

CMS commentary on pass-through payments emphasizes that actuarial soundness requires the capitation rates to cover all reasonable, appropriate, and attainable costs of *providing services under the contract*, and associated administrative costs. Other than the exceptions noted in the previous section, CMS does not believe the actuarial soundness definition permits additional payments to providers that are not directly related to delivery of services under the contract.

Contract provisions under §438.6 illustrate these principles by only allowing states to direct expenditures based on utilization, delivery of services covered under contract, and quality and outcomes of services.

TIMING AND TRANSITION (PHASE-OUT)

The section limiting state direction of provider payments, §438.6(c), is effective for contracts beginning on or after July 1, 2017. This appears to imply that 2016 contracts and early 2017 contracts may continue to be approved with pass-through payments under prior regulatory guidance.

Transition time to phase out supplemental payments is provided for hospitals, physicians, and nursing facilities. CMS acknowledges the significant financial reliance that safety-net providers place on pass-through payments funded through the Medicaid managed care program. As such, the final rule allows for a transition period for states to restructure pass-through

¹ Federal Register (May 2, 2016) (“Final Medicaid Managed Care Regulations”), 81 Fed. Reg. 19,912 (2016), available at <http://www.federalregister.gov/a/2016-09581>.

payments into permissible payment mechanisms as defined in §438.6(c)(1)(i) through (iii) and further discussed in the Potential State Alternatives section below.

Beginning with contracts effective on or after July 1, 2017, pass-through payments for hospitals must be phased out within 10 years—that is, for contracts beginning on or after July 1, 2027. Under §438.6(d)(2), CMS has instituted a 10-year phase-out schedule to reduce the allowable amount of pass-through payments for hospitals by 10% per year. Therefore, states may require pass-through payments as high as 100% of the “base amount” for contract years starting July 1, 2017, with a 10% reduction in each successive year. The base amount is an estimate of the UPL differential for the eligible population during the 12-month period two years prior to the rating period. It is calculated by taking the difference between FFS and/or managed care payments for the eligible population (without supplemental payments) and what Medicare would have paid on a FFS basis for the same services.

CMS believes pass-through payments for physicians and nursing facilities will be easier to transition than for hospitals. Therefore, these payments must be eliminated within five years. Unlike hospital pass-through payments, CMS has not regulated annual phase-down requirements for physicians and nursing facilities.

MEDICAL LOSS RATIO TREATMENT

Treatment of pass-through payments for medical loss ratio (MLR) calculations was clarified in §438.8(c)(2)(v)(C) and §438.8(f)(2)(i) of the final Medicaid managed care regulations. Pass-through payments that are not directly related to specific utilization, or quality of services, should be excluded from both the numerator and denominator of the managed care plans’ reported MLRs.

Impact of state programs and CMS response

CURRENT ROLE OF PASS-THROUGH PAYMENTS

Historically, states have used pass-through payments to ensure funding to specific providers who serve a significant number of Medicaid recipients. An example of this is funding safety-net providers, who largely focus on providing care to low-income and uninsured populations. Pass-through payments can also play a critical role in funding teaching hospitals, medical schools, and faculty physicians at these schools. Teaching hospitals treat a disproportionate share of Medicaid patients and complex cases. Additional funding can be needed to support the educational and research missions of these facilities, providing a benefit to the overall community.

STATE CONCERNS WITH ALTERNATIVE APPROACHES

Pass-through payments have given states a relatively straightforward approach to employ additional funding to promote quality of care and access to specific providers. The new rule requires any additional payments to be tied to utilization of services by the Medicaid population, which may spread these payments out across more providers than intended. Because total payments are limited by availability of funds, this may destabilize safety-net providers.

Additionally, total pass-through payments are easier to calculate and budget for than payments tied to utilization, both for the providers receiving the payments and the MCOs passing on the payments, as well as the state Medicaid programs. Level payments from year to year can be critical to smaller providers, especially in years when utilization is lower than average and employee salaries and costs are difficult to cover. More variances in state payments may be difficult to account for in funding mechanisms from year to year as well.

FIGURE 1: PASS-THROUGH PAYMENTS — TIMING AND TRANSITION

CLASS OF PROVIDER	CONTRACT YEARS PRIOR TO JULY 1, 2017	CONTRACT YEARS BEGINNING ON OR AFTER JULY 1, 2017, BUT BEFORE JULY 1, 2022	CONTRACT YEARS BEGINNING ON OR AFTER JULY 1, 2022, BUT BEFORE JULY 1, 2027	CONTRACT YEARS BEGINNING ON OR AFTER JULY 1, 2027
Hospital— inpatient and outpatient	May be approved under prior regulatory guidance	Pass-through payments to be phased out under a 10-year schedule, beginning at 100% of the base amount for the first contract year on or after July 1, 2017, and decreasing by 10 percentage points each successive year	Pass-through payments to be phased out under a 10-year schedule, beginning at 100% of the base amount for the first contract year on or after July 1, 2022, and decreasing by 10 percentage points each successive year	Pass-through payments not permitted
Physicians and nursing homes	May be approved under prior regulatory guidance	Pass-through payments permitted under transition provisions	Pass-through payments not permitted	Pass-through payments not permitted
All other providers	May be approved under prior regulatory guidance	Pass-through payments not permitted	Pass-through payments not permitted	Pass-through payments not permitted

Many states have laws and agreements in place that are predicated on current funding mechanisms. Renegotiating agreements and modifying laws may require considerable time and effort.

Currently, supplemental payments made for Medicaid members under a fee-for-service arrangement with the state are not subject to the new regulations. Therefore, the new regulations do not represent a level playing field and may dis-incentivize the use of managed care.

CMS RESPONSES TO STATE CONCERNS

In the final regulations, CMS did not respond directly to states' concerns. Instead, it listed concerns with pass-through payments.

- CMS's interpretation of statutory authority requires managed care payments to providers to be directly related to delivery of services under the contract (in order to be actuarially sound)
- Pass-through payments limit the managed care plans' ability to effectively manage care delivery and implement value-based purchasing strategies and quality initiatives

In response to the concern that final regulations may dis-incentivize the use of managed care, CMS noted that statutory requirements for payments under managed care are not the same as under fee-for-service.

Potential state alternatives

Under CMS's conceptual framework, payments to providers should be directly related to services provided to beneficiaries under the contract or value-based payment structures for such services. Further, CMS maintains that managed care plans should maintain the ability and responsibility to utilize the full value of the capitation payment for delivery of services and associated administrative costs.

Within this framework, we discuss allowable payment structures that maintain or partially maintain funding streams to critical providers.

SET MINIMUM REIMBURSEMENT

Under §438.6(c)(1)(iii), states are permitted to require managed care plans to adopt a minimum fee schedule or provide a uniform dollar or percentage increase to providers. For example, the state could mandate minimum physician reimbursement at a certain percentage of a benchmark rate, such as Medicare or the Medicaid fee-for-service fee schedule. Minimum hospital reimbursement could similarly be set at a percentage of Medicare or at a fixed percentage or dollar increase from the Medicaid fee-for-service reimbursement level.

Although in general CMS expects mandated reimbursement to be applied to a broad set of providers who provide a particular service, the regulations allow some flexibility:

- **Class of providers:** In response to comments, CMS states that it would be allowable to differentiate a "class of providers" from other providers offering the same services, potentially mandating higher reimbursement to this class or restricting participation in delivery system or payment reform. (§438.6(c)(2)(i)(B).) As examples of what may be considered a "class of providers," CMS suggested primary care physicians, public hospitals, and teaching hospitals as part of the final rule. If "class of providers" may be defined as any defined group that may need higher reimbursement to assure access or quality, this methodology likely could be applied to many provider groups that commonly receive supplemental payments.
- **Network providers:** §438.6(c)(1)(iii) specifically refers to network providers. This may imply that out-of-network providers may be paid at a lower rate. Out-of-state providers are often out-of-network, so this may facilitate using provider assessments to fund mandated reimbursement as discussed in the next section of this paper.

The state's ability to mandate different minimum reimbursement for classes of providers who provide the same service should be exercised with caution to avoid unintended consequences. For example, if mandated reimbursement for a protected class is too high relative to perceived value, managed care plans may reduce referrals to these providers or even decline to include them in networks.

Where states set higher minimum reimbursement, managed care plans will have the ability to fully utilize a larger capitation payment. This increases both the risk and opportunity associated with managing care and focusing on quality.

FUNDING HIGHER MINIMUM MANDATED REIMBURSEMENT

Although higher mandated reimbursement may mitigate the loss of supplemental payments for healthcare providers, a source of funding must also be found. For states that already have provider assessments in place, funding may already be adequate to support mandated minimum reimbursement. But in many states, supplemental payment funding relies heavily on provider intergovernmental transfers (IGTs). Because the new regulations specifically prohibit states from conditioning state-directed payments on IGTs (§438.6(c)(2)(i)(E)), states relying on IGTs must find alternative funding sources.

Provider taxes may form a reasonable alternative funding source for hospitals. One potential advantage of provider taxes is that they are generally applied to both public and private providers. This may be preferable if both public and private hospitals are expected to benefit from higher minimum reimbursement in the capitation rates. A potential disadvantage is that provider taxes cannot be adjusted to be proportional to the benefit each individual provider realizes from enhanced

reimbursement. The tax must be broad-based (applied to all providers in the class) and uniform (the same per diem or percentage of revenue for all providers), while the benefit of enhanced reimbursement may vary significantly, depending on each individual provider's Medicaid utilization.

Another feature of provider taxes is that states only have authority to impose taxes on in-state providers, so out-of-state providers will not contribute to provider tax revenue. The regulations allow state-directed minimum reimbursement to be applied only to network providers, which will often allow exclusion of out-of-state providers from the benefits funded by these taxes.

One disadvantage of provider taxes is that they are generally limited to 6% of net provider revenue (§433.68(f)). This is unlikely to pose a significant barrier for hospital providers, who serve a large number of commercial and Medicare patients in addition to Medicaid patients. But for nursing homes, where Medicaid revenue often constitutes over half of net revenue, the 6% safe harbor requirement is likely to limit funding available from this source.

(We would like to caution readers that implementation of a provider tax is a complex undertaking, and a comprehensive review of all the considerations is beyond the scope of this paper.)

Note that CMS objections to IGT funding may be limited to the common practice of requiring IGTs as a condition of participation under state-directed managed care plan expenditures (§483.6(c)(2)(i)(E)). In commentary, CMS notes that a provider's eligibility for payment should be solely based on satisfactory performance and not on compliance with an IGT agreement that may only be available to governmental entities. However, CMS did not explicitly forbid the use of IGTs as a financing mechanism for the nonfederal share. This limited response may imply that IGT funding is permissible, at least under some circumstances, as long as it is not a condition of participation.

Early adopter

The State of Indiana has mandated minimum provider reimbursement under the Healthy Indiana Plan (HIP) since 2008. Most providers participating in the HIP program are reimbursed directly by the managed care plans using Medicare payment principles. Starting in 2017, Indiana is planning to require the managed care plans to pay hospital providers at an enhanced Medicaid rate for all Medicaid managed care programs, including HIP. The enhanced Medicaid fee schedule for hospitals is approximately the upper payment limit. Enhanced hospital reimbursement will be funded through a hospital provider assessment fee.

GME AND DSH

States that wish to direct additional funding to teaching hospitals or safety-net hospitals may make additional direct payments to these institutions (outside of the capitation rates) through graduate medical education (GME) payments or disproportionate share hospital (DSH) payments. These payments remain an exception to the general rule that prohibits the state from making payments directly to providers (other than the managed care plan) for contracted services (§438.60).

States that carve GME payments out of the capitation rates in order to make payments directly to teaching hospitals are permitted considerable flexibility in the amount and structure of payments.² States are able to support a wider range of clinicians than under Medicare GME and can structure payments to support state policy objectives such as clinical workforce goals.

DELIVERY SYSTEM AND PAYMENT REFORM

Under §438.6(c), CMS permits three mechanisms under which states are permitted to direct managed care plan payments to providers. In addition to the mechanism requiring managed care plans to conform to a minimum or maximum fee schedule, states may direct payments to support either value-based purchasing or delivery system reform.

Although formal delivery system reform incentive payment (DSRIP) programs are not mentioned explicitly in the final regulations, these programs may be viewed as a model for the type of program CMS may approve under the final regulations. Examples of DSRIP programs are:

- Infrastructure development of key provider capacity or health information technology investment
- Care innovation projects focused on improving care delivery or quality, such as medical homes, accountable care organizations (ACOs), discharge transition, and physical and behavioral health integration³

Six states have approved 1115 waivers related to DSRIP: California, Kansas, Massachusetts, New Jersey, New York, and Texas. These programs received \$3.6 billion in federal funds during FFY 2015, primarily directed to hospitals.⁴ DSRIP programs serve a dual role. They have the potential to drive

² National Academy of Sciences (July 28, 2014). Graduate Medical Education: What Meets the Nation's Health Needs. Retrieved May 4, 2015, from <http://www.nationalacademies.org/hmd/Reports/2014/Graduate-Medical-Education-That-Meets-the-Nations-Health-Needs.aspx>

American Association of Medical Colleges (April 27, 2015). AAMC Direct and Indirect Graduate Medical Education Payments. A 50-State Survey. Retrieved May 4, 2015, from https://members.aamc.org/eweb/upload/Medicaid%20Direct_Indirect%20GME%20Payments%20Survey%202010.pdf

³ MACPAC (June 2015). Chapter 3 Using Medicaid Supplemental Payments to Drive Delivery System Reform: Results to Date. Washington, DC: MACPAC. Retrieved May 4, 2015, from <https://www.macpac.gov/wp-content/uploads/2015/06/Using-Medicaid-Supplemental-Payments-to-Drive-Delivery-System-Reform.pdf>

⁴ MACPAC (2015).

delivery system reform by providing a framework and critical capital for investments. At the same time, they are attractive to states because they have the capacity to replace fee-for-service supplemental payments in managed care.

There are some notable differences between existing DSRIP programs and the programs described in regulations. Under the regulations in §438.6(c), states must make delivery and payment reform programs available to all providers in a class, whereas in DSRIP programs, states have the flexibility to define eligible providers more narrowly. Also, IGTs from public hospitals are a primary funding source for four of the six states implementing DSRIP and are a condition of participation. This type of arrangement is explicitly prohibited in regulations. It is

unclear how CMS will interpret existing arrangements in the light of the new regulations.

Under DSRIP, payments are earned by achieving milestones, which may include implementation and reporting milestones. However, ultimately success of these programs will depend on meeting clinical and quality outcome improvement milestones.

INCENTIVE AND WITHHOLD PAYMENTS

If the state directs managed care plan payments to providers under §438.6(c), including value-based purchasing models, delivery system reform, or minimum required reimbursement provisions, the estimated cost of the directed payments must be included in capitation rates. This poses a substantial risk for states and managed care plans, especially with regard to

FIGURE 2: SUMMARY OF POTENTIAL ALTERNATIVES TO PASS-THROUGH PAYMENTS

MECHANISM	DESCRIPTION	ADVANTAGES	DISADVANTAGES
Set minimum reimbursement	State may set minimum reimbursement for managed care plans to pay providers	<ul style="list-style-type: none"> Replaces provider revenue from supplemental payments Can target a class of providers (e.g., primary care physicians rather than all physicians) 	<ul style="list-style-type: none"> Generally requires a funding source Difficult to target to specific providers—must target a class of providers Cannot support funding that is not related to Medicaid utilization (e.g., uncompensated care)
QME and DSH	States may continue to make QME and DSH payments outside the capitation rates	<ul style="list-style-type: none"> Allows focused funding for teaching hospitals and safety net providers May be funded by IGTs 	<ul style="list-style-type: none"> Only available to eligible providers QME: Primarily teaching hospitals DSH: Primarily safety net providers
Delivery system and payment reform	States may require plans to implement specified payment or delivery reforms	Provides a mechanism to support value-based purchasing and delivery reform	<ul style="list-style-type: none"> Generally requires a funding source Must target a class of providers rather than specific providers regardless of whether all are ready or willing
Incentive and withhold payments	Financial rewards for meeting quality and performance goals	<ul style="list-style-type: none"> Rewards quality Could potentially be used to mitigate risk from delivery system and payment reform 	<ul style="list-style-type: none"> Bonus payments may require funding Incentives limited to 5% of capitation Must be linked to state quality strategy
Carve-out services	Specific services may be excluded from managed care contracts	<ul style="list-style-type: none"> Providers may receive supplemental payments under fee-for-service Supplemental payments may be conditioned on IGTs 	<ul style="list-style-type: none"> Potential loss of service integration and quality Potential disincentive to rebalancing
Fund with provider assessments	State assessment on a broad-based class of providers, applied uniformly	Accesses funding from both public and private providers	<ul style="list-style-type: none"> Assessments for each provider cannot be directly related to enhanced funding the provider receives Assessments may only be levied on in-state providers Assessment limited to 6% of net provider revenue, in aggregate
Fund with IGTs	A governmental entity may transfer money to the Medicaid account to assist with an expenditure of interest	Flexible, with few reporting requirements	<ul style="list-style-type: none"> IGTs are limited to governmental providers The IGT cannot be a condition of participation for providers Little contractual protection

value-based payments and delivery reform as it may be difficult to predict the extent to which healthcare providers will earn payments by achieving outcome improvement milestones. Regulations specifically prohibit the state from recouping any unspent funds (§438.6(c)(2)(ii)(D)).

It may be possible to partially mitigate this risk by coordinating incentive and withhold payments to the managed care plans with state-directed payment reform to be implemented between managed care plans and providers. Under this design, when healthcare providers meet milestones and earn additional payments from the managed care plans, the managed care plans will also earn additional payments from the state.

CARVE-OUT SERVICES

Where another acceptable solution cannot be found for a given class of providers, states continue to have the option to carve out services. Services that are carved out of managed care contracts and provided on a fee-for-service basis are not subject to Medicaid managed care regulations. Currently, for services provided on a fee-for-service basis, providers may receive supplemental payments to enhance reimbursement, subject to the UPL, and these payments may be conditioned upon IGTs.

There are several potential drawbacks to this approach. The state may anticipate a loss of service delivery integration, leading to a reduction in quality of care and increase in costs. The adverse impact may vary by the type of service carved out. For example, a carve-out of hospital services may lead to more significant integration concerns than a carve-out of dental services. For some services, a carve-out may jeopardize policy goals. For example, if the state is unable to provide nursing facility and other long-term care (LTC) services under managed care, it may compromise efforts to attain rebalancing targets.

Fee-for-service supplemental payment programs are also subject to CMS approval and oversight. CMS has historically viewed these programs as supporting access to quality care, but may target this area for restriction in a future round of regulation. The U.S. Government Accountability Office (GAO) views non-DSH fee-for-service supplemental payments as high-risk and has requested action from CMS, including additional reporting requirements, clarification of permissible methods for calculating payments, and annual audits to ensure compliance.⁵

Conclusions

CMS has clearly articulated its position on pass-through payments in managed care. Because of the critical importance of the funding these payments currently represent, planning for the transition from pass-through payments to allowable alternative structures will be a high priority for states and providers, requiring robust provider and stakeholder engagement, discussion on approaches to care delivery and payment, development of systems to measure quality, and evaluation of financial impact.

U.S. Government Accountability Office (April 2014), 2013 Annual Report: Actions Needed to Reduce Fragmentation, Overlap, and Duplication and Achieve Greater Financial Stability, Publication GAO-13-2195R, Released May 2, 2014, <http://www.gao.gov/assets/660/653604.pdf>.

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