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September 8, 2021

Jennifer Wentworth
Special Projects Admin, Accounting
Mississippi Office of the Governor, Division of Medicaid
550 High Street, Suite 1000
Jackson, MS 39201

[Sent via email: jennifer.wentworth@medicaid.ms.gov]

Re: Report10 - State Fiscal Year 2022 CHIP Preliminary Rate Calculation and Certification

Dear Jennifer:

The Mississippi Division of Medicaid (DOM) has retained Milliman to develop the state fiscal year SFY 2022 capitation rate for the Children's Health Insurance Program (CHIP) population, effective July 1, 2021 to June 30, 2022. This report documents the preliminary capitation rate for CHIP.

As of the time of this report, the impact on the capitation rate due to COVID-19 is uncertain. We expect enrollment will remain elevated for CHIP beneficiaries through the remainder of the public health emergency (PHE), and have reflected this in the projected SFY 2022 enrollment. Additionally, the capitation rate includes provisions for expected vaccination administration fees related to COVID-19 in SFY 2022 and utilization trends from CY 2019 to CY 2020 reflect the impact of COVID-19. We will continue to monitor the development of this pandemic and adjust assumptions in the SFY 2022 capitation rate accordingly. As such, a risk corridor will be used in SFY 2022 to reflect the uncertainty in the capitation rate due to COVID-19. The risk corridor is described in more detail in Section II.

❖ ❖ ❖ ❖ ❖

Please call either of us at 262 784 2250 if you have questions. We look forward to discussing this report with you and the CCOs.

Sincerely,

Jill A. Bruckert, FSA, MAAA
Senior Consulting Actuary

Katarina N. Lorenz, FSA, MAAA
Consulting Actuary

JAB/KNL/mb

Attachments

MILLIMAN REPORT

State of Mississippi Division of Medicaid

State Fiscal Year 2022 CHIP Preliminary Rate Calculation and Certification

September 8, 2021

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I. SUMMARY AND DISCUSSION OF RESULTS

The Mississippi Division of Medicaid (DOM) retained Milliman to calculate and document the capitation rate for the Children's Health Insurance Program (CHIP) population effective for state fiscal year (SFY) 2022. This report documents the development of the preliminary capitation rate for the CHIP population. This report is structured as follows:

- Section I includes a high-level overview of the change in the capitation rate relative to the SFY 2021 capitation rate
- Section II describes the methodology used to develop the SFY 2022 CHIP capitation rate
- Appendix A contains additional information on the base period data sources and processing
- Appendix B contains the CY 2018 and CY 2019 databooks
- Appendix C includes an Actuarial Certification of SFY 2022 CHIP capitation rate
- Appendix D documents our reliance on DOM for data and other assumptions in the development of the capitation rate

COVID-19 CONSIDERATIONS IN SFY 2022 RATE DEVELOPMENT

As of the time of this report, the impact on the SFY 2022 capitation rate due to COVID-19 is difficult to predict. As such, a risk corridor will be in effect in SFY 2022 to reflect the uncertainty in the capitation rate due to COVID-19. The risk corridor is described in more detail in Section II.

In addition, explicit adjustments for COVID-19 are made in the rate development for the following, as described in Section II:

- Utilization trend assumptions from CY 2019 to CY 2020 are set to 0%. The application of a 0% utilization trend from CY 2019 to CY 2020, essentially assumes once services return to pre-pandemic levels they will not also reflect additional utilization trend in CY 2020.
- The capitation rate includes provisions for expected vaccination administration fees related to COVID-19 in SFY 2022.

The SFY 2022 capitation rate does not include any explicit adjustments for the following:

- Member Acuity: CHIP enrollment is projected to remain elevated through the end of the Department of Health and Human Services (HHS) declared PHE. However, the expected enrollment is only expected to be 5% higher in SFY 2022 than CY 2019, as there has not been as much membership increase in CHIP compared to MississippiCAN. Therefore, we are not applying an adjustment to reflect any potential impact on the average acuity of beneficiaries.
- COVID-19 Testing and Treatment Cost: The infection rate for COVID-19 in SFY 2022 is dependent on many variables that are difficult to predict, limiting our ability to include an estimate for the cost of testing for and treating individuals with COVID-19. Some of the variables under consideration include, but are not limited to:
  - The take-up rate and timing of COVID-19 vaccinations.
  - The emergence of COVID-19 variants and the efficacy of vaccines upon these variants.
  - The implementation of social distancing measures.

  To our knowledge, there is not a publicly available model that includes COVID-19 infection rate or hospital admissions through June 2022. In addition, the publicly available models have materially changed short-term and long-term projections of COVID-19 prevalence in reaction to emerging data.

Moreover, our review of the costs of testing and treating COVID-19 in March to October 2020 shows total costs for these services was approximately $1.22 PMPM for the CHIP population. We expect costs for testing and treatment services to decrease from these values across the SFY 2022 rate period.

- Deferred and Foregone Services: The most significant fiscal impact of COVID-19 to date has been the deferral of non-essential services, either through government-enacted policies, the impact of social distancing on the administration of services, or personal choice to defer services. We have reviewed MississippiCAN and CHIP emerging data on claims incurred throughout CY 2020 by population type (to remove the impact of membership mix changes). As of December 2020, there was still measurable reductions in claim costs compared to the PMPMs for the given population in CY 2019, prior to the pandemic. However, it is difficult to use this historical data to project the impact of deferred services for SFY 2022 for many reasons.
  - We observed in the CY 2020 data that the change in service utilization has varied as the level of COVID-19 diagnoses and hospital admissions has changed in Mississippi over the course of the pandemic to date. Therefore, a key variable in predicting future service utilization changes relative to pre-pandemic levels is the future prevalence of COVID-19, which as noted above is unknown.
  - Limited data is available to date to understand how beneficiary behavior will change during and after the roll-out of the COVID-19 vaccination. As such, there could still be a wide range of answers as to when service utilization may return to pre-pandemic levels.
  - In the MississippiCAN and CHIP data that we have reviewed it is difficult to isolate the impact of deferred services from changes in utilization due to other drivers, such as member acuity changes or change in service mix.
  - Even if demand for deferred services is high in SFY 2022, the amount of these services that can be provided is limited by the capacity of the state's medical infrastructure. Some delayed services may continue to be delayed or never performed if demand exceeds capacity.
- Service Mix Changes: In response to the pandemic, the mix of services used to treat patients has changed, such as the use of telehealth services. It is unknown if these provider and patient changes will persist after the end of the pandemic.

CAPITATION RATE CHANGE SUMMARY

The per member per month (PMPM) preliminary capitation rate for SFY 2022 is $266.77. As documented in Section II of this report, one statewide rate was selected for SFY 2022 after a review of historical experience by region.

The SFY 2022 CHIP capitation rate is 2.1% lower than the SFY 2021 capitation rate. Table 1 shows a summary of the main drivers of the rate change that make up the 2.1% decrease to the capitation rate.

Table 1
Mississippi Division of Medicaid
Summary of SFY 2022 Rate Change by Component

	CHIP
Final SFY 2021 Capitation Rate	**$272.63**
Base Data Update (CY 2018 to CY 2019)	0.974
Restated Assumptions	0.981
Restated SFY 2021 Rate	**0.956**
SFY 2021 to SFY 2022 Trend	1.006
CY 2020 to CY 2021 PDL Adjustment	1.002
COVID-19 Vaccine Administration Expense	1.008
Update Non-Service Cost Allowance	1.007
Preliminary SFY 2022 Rate Change	**0.979**

Actual CY 2019 claim costs for the CHIP population came in approximately 2.6% lower than expected for CY 2019 using the combination of CY 2018 base data and trend assumptions from the SFY 2021 capitation rate development. Trend assumptions from CY 2019 to SFY 2021 were reduced by a total of 1.9% (1.2% on an annualized basis), compared to those used in the SFY 2021 rate development for the same time period, based upon more recent trend experience.

- Claim costs were increased approximately 0.6% for anticipated utilization and provider reimbursement increases from SFY 2021 to SFY 2022.
- The impact of preferred drug list (PDL) updates effective January 1, 2021 increased pharmacy costs approximately 0.9% resulting in an overall 0.2% increase to the capitation rate.
- CHIP CCOs will be responsible for expenses related to the administration of the COVID-19 vaccine. Vaccine administration expenses increased physician expenses by approximately 3.3% resulting in an overall 0.8% increase to the capitation rate.
- Changes to non-service expenses on a PMPM basis result in an increase to the rate of approximately 0.71%, based upon CCO reported CHIP non-services expenses for CY 2019 trended to SFY 2022. Fixed non-service expenses increased from $6.65 PMPM in the SFY 2021 rate to $7.19 PMPM in the SFY 2022 rate, and variable non-service expenses increased from 5.69% in the SFY 2021 rate to 6.29% in the SFY 2022 rate.

DATA RELIANCE AND IMPORTANT CAVEATS

Milliman has developed certain models to estimate the values included in this report. The intent of the models was to estimate the SFY 2022 capitation rate. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice (ASOP).

The models rely on data and information as input to the models. We used CCO encounter data and CCO financial reporting for January 2018 to February 2021, historical and projected reimbursement information, fee schedules, and other information from DOM, CHIP CCOs, Change Healthcare, Myers and Stauffer, and CMS to calculate the preliminary CHIP capitation rate shown in this report. If the underlying data used is inadequate or incomplete, the results will be likewise inadequate or incomplete. Please see Appendix D for a full list of the data relied upon to develop the SFY 2022 capitation rate.

Our report is intended for the internal use of DOM to review the preliminary SFY 2022 CHIP capitation rate. The report and the models used to develop the values in this report may not be appropriate for other purposes. We anticipate the report will be shared with contracted CCOs and other interested parties.

Milliman does not intend to benefit, and assumes no duty or liability to, other parties who receive this work. It should only be distributed and reviewed in its entirety. This capitation rate may not be appropriate for all CCOs. Any CCO considering participating in CHIP should consider their unique circumstances before deciding to contract under this rate.

The results of this report are technical in nature and are dependent upon specific assumptions and methods. No party should rely on these results without a thorough understanding of those assumptions and methods. Such an understanding may require consultation with qualified professionals.

Jill Bruckert is a Senior Consulting Actuary for Milliman, a member of the American Academy of Actuaries, and meets the Qualification Standards of the Academy to render the actuarial opinion contained herein. To the best of her knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices.

The terms of Milliman's contract with DOM effective June 1, 2020 apply to this report and its use.

II. DEVELOPMENT OF CAPITATION RATE

This section of the report describes the development of the preliminary SFY 2022 CHIP capitation rate.

METHODOLOGY OVERVIEW

The methodology used to calculate the capitation rate can be outlined in the following steps:

1. Summarize financial reporting and encounter data for CY 2019 CHIP enrollees.
2. Trend CY 2019 adjusted experience to SFY 2022.
3. Apply adjustments for program changes.
4. Provide an allowance for non-service expenses.
5. Calculate risk corridor settlements.

Each of the above steps is described in detail below.

Step 1: Summarize Financial Reporting and Encounter Data for CY 2019 CHIP Enrollees

MEMBERSHIP

Member months by region in CY 2019 were summarized from the detailed CHIP eligibility data. These enrollment counts were validated against enrollment information provided by the CCOs. In total, the enrollment in the eligibility files is within 0.01% of enrollment as reported by the CCOs.

Row (a) of Exhibit 1 includes the CY 2019 member months included in base data development.

CLAIM DATA

The encounter data expenditures for both CCOs are combined to summarize CY 2019 claim experience for CHIP enrollees. Row (b) of Exhibit 1 includes the CY 2019 total claim costs from the encounter data. Row (c) converts the total costs to a PMPM basis. Claim data is summarized with runout through April 2020.

All experience used to develop the base period data for the SFY 2022 capitation rate is on a net basis, excluding any member cost sharing, which varies by the income eligibility of the enrolled child's family.

- No copayments are charged to enrolled children in families with an annual income up to 150% FPL
- Enrolled children in families with an annual income above 150% of the FPL are charged the following copayments:
  - Outpatient Health Care Professional Visit, $5.00
  - Emergency Room Visit, $15.00
- Annual out-of-pocket maximums for the following are in place:
  - Families with annual income from 151% to 175% FPL shall pay no more than $800
  - Families with annual income above 175% FPL shall pay no more than $950

As part of the financial templates, each CCO provided membership and claims separately for children in three populations:

- FPL 134% to 150%
- FPL 151% to 175%
- FPL 176% and up

The difference in the reported claims for CY 2019 on a PMPM basis by population was less than 2%. Therefore, given the reduced credibility of developing rate cells at the FPL group and the small variance in experience we did not develop separate rate cells for each of these populations.

Appendix B contains databooks summarizing the total paid amounts and paid PMPMs in the encounter data for CY 2018 and CY 2019. CY 2018 data is not directly used for rate development, but is included for informational purposes.

Data Collection and Validation

DOM and Milliman go through extensive data validation processes to review CCO submitted encounter data. DOM regularly monitors encounter claims compared to cash disbursement journals (CDJs) to ensure the timeliness and completeness of submitted encounters and works with Myers and Stauffer to identify the correct original or final claim to keep in each claim string. Milliman relied on this claim status identification process to remove duplicates and identify denied claims that are anticipated to be resubmitted and accepted, as described in Appendix A.

As part of rate development, Milliman requests financial reporting data from each CCO. A new contract for CHIP CCOs began in November 2019 with a new CCO entering the program and one CCO exiting the program. Therefore, for CY 2019 we collected data from three CCOs. This financial reporting data is reconciled to each CCO's 2019 audited NAIC financial statement. After several rounds of questions to clarify, adjust, and confirm understanding of the reported financial information, Milliman compared the encounter data to the financial reporting data, together for paid claims and subcapitated claims. This comparison excludes estimates for incurred but not reported (IBNR) claims and adjusts for expanded benefits, pharmacy rebates, and any other claims that were identified as missing from the processed encounter data. The following items were noted:

- Overall, the paid amounts in the encounters reconcile much better to the paid amounts shown in the CCO financial reporting for the CHIP population than in prior years. Encounter data is within 0.01% of financial data.
- At a category of service and rate cell level, there is a greater variance between encounter data and financial reporting due to inconsistencies in allocations between the CCOs in the financial reporting. Therefore, we grouped the encounter data consistently for all CCOs using the Milliman 2019 *Health Cost Guidelines*™ *(HCGs)* grouper to use the encounter data as the base data.

Table 2 provides additional detail regarding the claims found in encounters and the financial reporting by the CCOs, after adjusting both data sources to be on a consistent basis. Given the minimal difference between encounter data and financial data in total, we do not apply any adjustment to the encounter data to reflect differences between the data sources.

Table 2
Mississippi Division of Medicaid
SFY 2022 CHIP Capitation Rate Development
Comparison of Financial and Encounter Costs

Category of Service	*a* Adjusted Financials	*b* Adjusted Encounters	*c = (a / b) - 1* % Difference
Inpatient Hospital	$10,857,654	$11,157,766	-2.69%
Outpatient Hospital	$37,941,314	$36,966,503	2.64%
Physician	$30,464,831	$35,896,544	-15.13%
Dental	$17,578,855	$17,232,844	2.01%
Other	$7,204,274	$2,685,930	168.22%
Subtotal - IP / OP / Phys / Oth	**$104,046,928**	**$103,939,588**	**0.10%**
Drug	$21,937,588	$22,060,063	-0.56%
Total - All Categories of Service	**$125,984,515**	**$125,999,651**	**-0.01%**

The financial reporting expenditures for all CCOs were combined to perform the encounter validation outlined above, and to develop the following adjustments to apply to the encounter data:

- Removal of services offered by CCOs that are not covered by the CHIP program
- Removal of pharmacy rebates collected by CCOs
- Removal of costs that would be paid or recouped through provider settlements outside the encounter data
- Addition of incurred by not reported (IBNR) expenses not yet included in encounters
- Addition of claims paid by the CCOs that are not yet reflected in the encounter system

Non-Covered Services

The value of expanded services offered to plan members that were not CHIP covered services during the base data period are excluded from the base data. In CY 2019, these services are non-emergency transportation services offered by one CCO. The costs of expanded services were excluded from paid claims in CCO financial reporting. These services are equivalent to approximately 0.02% of total reported CHIP CY 2019 service costs. Corresponding amounts were removed from the encounter data, as reported at regional level by the impacted CCO.

This adjustment is shown in Exhibit 1 in row (d).

Pharmacy Rebate Adjustment

An adjustment was made to pharmacy encounters to reflect the average rebate collected by the CCOs in CY 2019 as reported in CCO financial templates. Rebate costs were summarized from the financial reporting and removed from the paid pharmacy claims. Rebates totaled approximately $1.4 million, or 5.5% of adjusted pharmacy costs.

This adjustment is shown in Exhibit 1 in row (e).

Provider Reimbursement Adjustment

An adjustment was made to physician encounters to reflect the total provider settlements collected by CCOs in CY 2019 as reported in CCO financial templates. These costs were converted to a percentage of base period physician costs and allocated across regions. These adjustments totaled approximately $150,000 in reduced CY 2019 physician expenses.

This adjustment is shown in Exhibit 1 in row (f).

IBNR Adjustment

The adjustment for IBNR claims uses the best estimate IBNR claims provided by each of the CCOs in their financial reporting. We performed the following high-level reasonability checks to validate these estimates:

- Data, including IBNR estimates, was reported on a quarterly basis by each CCO. We reviewed the reported IBNR by quarter to determine that there was a reasonable pattern throughout the year (i.e., IBNR amounts held for Q1 2019 were significantly lower than Q4 2019).
- IBNR estimates among the CCOs were reviewed to validate that they were approximately the same as a percentage of total claims, where appropriate.
- IBNR estimates by category of service are approximately the same as a percentage of total claims as IBNR adjustments applied to the CHIP data in prior years after accounting for differences in runout period between years.

The applied IBNR adjustment is shown in Exhibit 1 in row (g).

Missing Data Adjustment

A separate adjustment was made to account for payments made by the CCOs that are not yet submitted to the encounter system or were denied due to a known issue with edits in the MMIS system. These amounts are not included

in the detailed encounter data after the processing outlined in Appendix A.

Each CCO provided separate financial reporting and claim extracts to support and validate the amounts reported for claims not appearing in encounters. Milliman also performed a detailed review of the extracts to line the data up against the encounter data and remove any claims already included in the processed encounter data. The detailed claims extracts provided by the CCOs included splits by region and rate cell, which were used to allocate missing data on Exhibit 1.

Overall, the base data is increased 0.7% on a PMPM basis for missing data. The aggregate adjustment for all missing data is shown in Exhibit 1 in row (h).

FINAL PMPM BASE PERIOD COSTS

Total 2019 base period PMPM costs are shown in Exhibit 1 row (i).

Step 2: Trend CY 2019 Adjusted Experience to SFY 2022

Table 3 shows the annual unit cost trends applied to the adjusted CY 2019 encounter data to project it to a SFY 2022 basis. The experience is trended from the base period midpoint of July 1, 2019 to the January 1, 2022 midpoint of the projection period (30 months).

Table 3
Mississippi Division of Medicaid
CY 2019 to SFY 2022 Unit Cost Trends

Category of Service	Annualized Unit Cost Trend
Hospital Inpatient	0.00%
Hospital Outpatient	0.00%
Physician	0.00%
Prescription Drugs	3.32%
Dental	0.00%
Other Professional	0.00%

Table 4 shows the annual utilization trends applied to the adjusted CY 2019 encounter data to project it to a SFY 2022 basis. The experience is trended from the base period midpoint of July 1, 2019 to the January 1, 2022 midpoint of the projection period (30 months).

Table 4
Mississippi Division of Medicaid
CY 2019 to SFY 2022 Utilization Trends

Category of Service	Annualized Utilization Trend CY 2019 to CY 2020	Annualized Utilization Trend CY 2020 to SFY 2022
Hospital Inpatient	0.00%	-3.00%
Hospital Outpatient	0.00%	-1.00%
Physician	0.00%	0.00%
Prescription Drugs	0.00%	2.78%
Dental	0.00%	1.00%
Other Professional	0.00%	0.00%

Our general approach to trend development for most categories of service is to consider expected changes in provider reimbursement along with historical PMPM trend values. We then develop utilization / service mix trends that produce targeted PMPM trends. We confirm the reasonability of the utilization trends against experience and assumptions from similar programs in other states. We utilize this approach because it is frequently difficult to directly measure changes in utilization for services, other than inpatient hospital and pharmacy over time, due to differences in counting utilization "units."

The following data sources were used to develop the trend assumptions:

- Encounter data and financial reporting experience for CHIP members to analyze PMPM and utilization trends by major service categories from CY 2017 through CY 2019. While we reviewed CY 2020 experience, it was not directly used to select the trend assumptions applied from CY 2020 to SFY 2022.
- Exhibit 5A includes a historical trend summary for the CHIP program from CY 2017 through CY 2019. This data has been normalized for the following to put it on a consistent basis across time:
  - IBNR from the financial templates was added to the encounter data to review PMPM trends on a completed basis.
  - Estimates of the impact of the following material program or reimbursement changes were removed for the applicable time periods. These changes are accounted for in separate adjustments in this report and, therefore, should not be included in data analyzed for trends.
    - PDL changes
    - Provider settlements
    - Financial to Encounter adjustments
  - Encounter data compared to the financial data for CHIP varies across time periods. Therefore, a high-level adjustment was applied to reflect the estimated difference between encounter data and financial data by calendar year (scaling encounters to financial data).
- Exhibit 5A includes the aggregate experience across all three CCOs with experience in CY 2019. As previously noted, a new contract for the CHIP program began in November 2019, with one incumbent CCO staying in the program and the second CCO being replaced by a new CCO. We reviewed the equivalent of Exhibit 5A for the continuing CCO to select trend assumptions. This CCO had lower trends than the program average trends shown in Exhibit 5A. In addition, we reviewed the emerging experience for the new CCO relative to the continuing CCO and observed their experience was more in line with the continuing CCO rather than the CCO that exited the program. Therefore, we feel comfortable using trend rates which are slightly lower than those shown in the aggregate version of Exhibit 5A.
- Experience from similar programs in other states.

The rest of this section outlines the methodology used to develop these trend values.

Utilization Trend for All Services except Prescription Drugs

Utilization trend assumptions reflect expected changes in:

- Demand for medical services
- Intensity or mix of medical services
- Provider practice patterns
- Provider coding changes

We implemented 0% utilization trends from CY 2019 to CY 2020 to reflect the impact of COVID-19. The above methodology was used to inform the utilization trends applied from CY 2020 to SFY 2022. This 0% trend from CY 2019 to CY 2020 is reflected in the estimated annual projected changes in CHIP utilization shown in Table 4 above.

Estimated annual projected changes in CHIP utilization are shown in Table 4 above. The adjustment resulting from these utilization trends is shown in row (c) of Exhibit 2.

Unit Cost Trend for All Services except Prescription Drugs

It is our understanding that CHIP reimbursement is close to commercial levels for facility and dental services and comparable to Medicaid reimbursement levels for all other types of services. DOM changes most Medicaid fee

schedules July 1 of each year, generally consistent with the most recent Medicare fee change. However, in historical CHIP experience, as summarized in Exhibit 5A, the change in the costs year to year do not warrant including higher commercial trends for facility and dental services. We applied a 0% charge trend in each year from CY 2019 to SFY 2022 for all categories of services, except prescription drugs.

Estimated annualized projected changes in CHIP unit costs are shown in Table 3 above.

The adjustment incorporating these trends is shown in row (d) of Exhibit 2.

Prescription Drugs Utilization and Unit Cost Trends

We analyzed pharmacy data using the following sources to develop trend assumptions:

- ***MississippiCAN-Specific Data:*** We analyzed March 2017 to February 2020 pharmacy experience for the MA Children, Quasi-CHIP, SSI / Disabled Newborn, Non-SSI Newborns 0 to 2 Months, Non-SSI Newborns 3 to 12 Months, and Foster Care populations and developed utilization and cost summaries by brand and generic drug types for the 25 top therapeutic classes for non-specialty prescriptions and 5 top therapeutic classes for specialty prescriptions. We developed cost projections for CY 2019 to SFY 2022 using those summaries, giving consideration for script utilization per 1,000 increases, and average script cost increases for brand, generic, and specialty drugs.

  Considerations were made when reviewing prescription drug experience for the estimated impacts of changes in annual updates to the state's uniform PDL.

  Exhibit 5B shows the CY 2019 experience and prospective utilization and unit cost trends applied by therapeutic class at a generic, brand, and total level.

- ***CHIP Pharmacy Data:*** Given CHIP has a less-credible base to develop detailed pharmacy trend assumptions we used the pharmacy trends developed from the MississippiCAN children population. We validated that the selected trends for the MississippiCAN children population were reasonable to use for the CHIP population by reviewing the therapeutic class distribution of pharmacy costs compared to the MississippiCAN children population.

- ***Industry Research:*** We reviewed recent drug trend reports from PBMs to benchmark the prospective list price and utilization trends used in our detailed modeling of MississippiCAN-specific data for the populations mentioned above.

- ***FDA Drug Approvals*** – When developing prospective drug trends, we consider the FDA approval of various new therapies. Some of the therapies we expect to have higher frequency and / or costs include:

  - Adakveo
  - Oxbryta
  - Reblozl
  - Givlaari
  - Vyondys 53
  - Koselugo
  - Trodelvy
  - Sogroya
  - Danyelza
  - Retevmo

  However, building explicit additional trend into capitation rates for these products is difficult due to a lack of information on expected pricing and uptake among the various populations. Therefore, we build in modest additional trend to reflect the addition of new approvals for each population. We note the historical experience reviewed in trend development also reflects the impact of FDA approvals that were new during those periods.

When developing prospective drug trends, no consideration was given for brand to generic shifts. These shifts are reflected separately as a change in the state PDL.

Zolgensma will be carved out of the capitation rate for SFY 2022. The CCOs will be reimbursed outside of the capitation rate for costs associated with administering Zolgensma to approved members. Therefore, no adjustment was made to pharmacy utilization or cost / script trends for anticipated Zolgensma utilization in SFY 2022.

Based on these sources of information, we project the annualized trend assumptions from CY 2019 to SFY 2022, as shown in Table 3 above. Similar to the utilization trends for non-pharmacy services, the utilization trends shown in Table 4 reflect a 0% trend from CY 2019 to CY 2020. Rows (c) and (d) in Exhibit 2 includes these adjustments for the pharmacy services.

Step 3: Apply Program Change Adjustments

For SFY 2022, there are three material program changes expected for CHIP relative to the base period of CY 2019.

Preferred Drug List Revisions

Major updates are made to the state PDL annually and take effect on January 1 of each year. We estimated the impact of these changes using detailed modeling provided by Change Healthcare, who is contracted by DOM to regularly update and maintain the state PDL. In our reliance on the PDL modeling performed by Change Healthcare we reviewed the output of the models for reasonableness, but did not audit their analyses.

The modeling provided by Change Healthcare included drug-level analyses of expected utilization shifts and resulting changes to pharmacy expenditures on a gross of rebate basis. This modeling uses data from both FFS and MississippiCAN populations, so we cannot directly use the output for rate development. Therefore, we applied the change in gross costs on a percentage basis by therapeutic class to CHIP encounter data to develop program-specific impacts of PDL revisions. Separate PDL adjustments were developed for each population to account for the different mix of drugs used for each group.

Table 5 shows the estimated impact of PDL revisions. The CY 2019 to CY 2020 PDL changes shown below include the impact of significant May 2020 PDL changes in addition to January 2020 PDL changes. The full adjustment applied is a combination of the PDL changes from CY 2019 to SFY 2022.

Table 5
Mississippi Division of Medicaid
PDL Adjustment

	2019 to 2020	2020 to 2021
CHIP	0.960	1.009

Relative to prior years, PDL changes effective January 1, 2021 were minor and only impacted five therapeutic classes. Table 6 displays all five classes and outlines the shifting assumptions modeled by Change Healthcare for each class.

Table 6
Mississippi Division of Medicaid
January 2021 PDL Adjustments

Therapeutic Class	Utilization Shifts From	Utilization Shifts To	Modeled Shift	Estimated Increase (Decrease) in Gross Costs	% of Total PDL Change
BRONCHODILATORS - BETA AGONISTS	ALBUTEROL HFA	PROAIR RESPICLICK	70%	41.0%	85.7%
	ALBUTEROL HFA	VENTOLIN HFA			
GLUCOCORTICOIDS - INHALED	FLUTICASONE-SALMETEROL DISKUS	ADVAIR DISKUS	70%	34.4%	25.2%
CYTOKINE MODULATORS - PSA	COSENTYX	TALTZ	50%	1.8%	6.6%
MOVEMENT DISORDER	TETRABENAZINE	AUSTEDO	20%	1.1%	3.2%
STIMULANTS & RELATED AGENTS	APTENSIO XR	MPH ER 24	50%	(3.6%)	-20.7%
	APTENSIO XR	MPH CD			
	APTENSIO XR	MPH LA			

The shifting assumptions developed by Change Healthcare are meant to reflect the best estimate for how utilization will shift as certain products change preferred status effective January 1, 2021, recognizing that a full shift will not happen immediately. The estimated change in gross cost assumes the ultimate modeled shift shown in Table 6 is achieved two quarters after the PDL changes take effect.

The adjustment for PDL revisions is shown in row (e) of Exhibit 2.

Emergency Ambulance Payment Increase

Effective July 1, 2020, DOM is increasing reimbursement for emergency transportation services. This increase will reimburse these services at 100% of the Medicare fee schedule, while these services were historically reimbursed at 70% of Medicare. We estimated the impact of this reimbursement change in SFY 2022 by applying the reimbursement change to emergency transportation services in the encounter data in CY 2019.

The adjustment to increase reimbursement for emergency transportation services is shown in row (f) in Exhibit 2.

COVID-19 Vaccine Administration Expenses

Per CMS guidance, the cost of the COVID-19 vaccine for Medicaid recipients will be fully reimbursed by the federal government, and, thus, the CCOs will not be at risk for these costs. However, the CCOs will be responsible for expenses related to the administration of the COVID-19 vaccine. Consistent with DOM's provider bulletin issued on March 15th, 2021, these expenses are set equal to the Mississippi adjusted Medicare rate of $35.87 for each of the first and second dose, if applicable. Following the end of the PHE (assumed to be December 31, 2021), expenses will reduce to 90% of the Medicare rate.

We consulted with DOM and an epidemiologist to estimate the following vaccine-related assumptions for CHIP enrollees:

- The percentage of members likely to receive the vaccine
- For members likely to receive the vaccine, the period over which the vaccine will be administered
- The relative distribution of single dose vs. multi dose vaccines

The attached Exhibit 6A shows the total cost per vaccination in each half of SFY 2022. Exhibit 6B details the calculation of vaccine administration expenses by age grouping, using the vaccine expenses shown in Exhibit 6A. Exhibit 6C

shows the calculation of the vaccine administration expenses for the CHIP population using the relative mix of members within each group from Exhibit 6B.

Given the uncertainty surrounding COVID-19 vaccine availability and uptake rates, Milliman and DOM will monitor vaccination rates and adjust the methodology if necessary.

The COVID-19 vaccine administration expenses are shown in row (g) in Exhibit 2.

Step 4: Provide an Allowance for CCO Non-Service Expenses

Administrative Expenses, Premium Tax, and Targeted Margin

The administrative allowance included in the capitation rate is intended to cover the following costs:

- Case management
- Utilization management
- Claim processing and other IT functions
- Customer service
- Provider contracting and credentialing
- Third party liability and program integrity
- Member grievances and appeals
- Financial and other program reporting
- Local overhead costs
- Corporate overhead and business functions (e.g., legal, executive, human resources)

The non-service expense allowance for the SFY 2022 capitation rate is comprised of a flat PMPM for fixed administrative costs and a percentage of revenue for variable administrative costs. We also included explicit adjustments of 1.80% of revenue for target margin and 3.00% for the Mississippi premium tax, for a total non-service expense allowance of 13.78%. Table 7 displays the allowance included in the CHIP rate for non-service expenses.

Table 7
Mississippi Division of Medicaid
Non-Service Expenses

	% of Revenue	PMPM
Fixed Costs[1]	2.69%	**$7.19**
Variable Costs[2]	**6.29%**	$16.78
Premium Tax[2]	**3.00%**	$8.00
Margin[2]	**1.80%**	$4.80
Total	13.78%	$36.77

[1] *Included in the rate as a PMPM, equivalent % of revenue shown.*
[2] *Included in the rate as a % of revenue, equivalent PMPM is shown.*

We developed the administrative allowance based on an analysis of the CCOs' actual CY 2019 CHIP administrative expenses reported in the financial templates with the following adjustments:

- Administrative costs for subcapitated claims were reported separately by the CCOs in the financial templates and combined with other administrative expenses
- If spread pricing was used by the CCO's pharmacy benefit administrator (PBM), the administrative costs were reallocated from pharmacy costs to administrative costs
- Administrative costs not allowable per the CCO contract with DOM were separately reported by the CCOs in the financial templates and removed from the costs used to develop the SFY 2022 administrative allowance

The adjusted administrative costs, excluding taxes and fees, were then compared to the national benchmarks released by the Sherlock Company and Milliman's annual analysis of administrative costs for Medicaid managed care plans.

We applied a 2% trend to actual CY 2019 CCO administrative expenses for the two CCOs that will administer the program in SFY 2022 to estimate administrative expenses for SFY 2022, based upon recent changes in the consumer price index (CPI) for employment and labor published by the Bureau of Labor and Statistics. We estimated a split of fixed versus variable expenses across all populations equal to 70% variable and 30% fixed, consistent with detail provided by the CCOs in their financial templates.

Step 5: Calculate Risk Corridor Settlements

Subject to CMS approval, DOM will implement a symmetrical 2% risk corridor to address the uncertainty of medical costs given the COVID-19 pandemic. The risk corridor will cover the entire SFY 2022 time period.

The capitation rate in this report reflects a target medical loss ratio (MLR), which measures the projected medical service costs as a percentage of the total capitation rate paid to the CCOs. The risk corridor would limit CCO gains and losses if the actual MLR is different than the target MLR. Table 8 summarizes the share of gains and losses relative to the target MLR for each party.

Table 8
Mississippi Division of Medicaid
Proposed Risk Corridor Parameters

MLR Claims Corridor	CCO Share of Gain / Loss in Corridor	DOM Share of Gain / Loss in Corridor
Less than Target MLR -2.0%	0%	100%
Target MLR -2.0% to Target MLR +2.0%	100%	0%
Greater than Target MLR +2.0%	0%	100%

For the purposes of the SFY 2022 risk corridor, a different definition of MLR will be used than the Federal MLR definition. The last column of Exhibit 3 illustrates the calculation of the target MLR for each CCO. The final target MLR will not vary by CCO.

The risk corridor will be implemented using the following provisions:

- The numerator of each CCO's actual MLR will include all services incurred during the period of SFY 2022 with payments made to providers as defined in Exhibit D of the CCO Contract, including fee for-service payments, subcapitation payments, and settlement payments
- The 85% minimum MLR provision (Federal MLR definition) in the CCO contract will apply after the risk corridor settlement calculation

The risk corridor settlement will occur after the contract year is closed, using six months of runout. An initial calculation will occur, but the final calculation will occur once the MLR audit has been completed. MLR audits are usually completed 12 to 18 months after the close of the SFY.

Other Program Considerations

Minimum MLR

The program includes a minimum MLR requirement of 85% of revenue. The sum of medical expenses and HCQI expenses must meet or exceed 85% of revenue. Revenue for premium taxes is excluded from the MLR calculation. If the 85% threshold is not met, CCOs return revenue to DOM until the threshold is met. Due to the implementation of a 2% risk corridor for SFY 2022, the minimum MLR will be greater than 85% and not trigger any additional payments as of a result of this provision.

Withholds

There are no withholds associated with the CHIP capitation rate.

Risk Adjustment

The SFY 2022 CHIP capitation rate will not be risk adjusted.

EXHIBITS 1 THROUGH 6

Capitation Rate Development

Exhibit 1
Mississippi Division of Medicaid
All Regions SFY 2022 CHIP Capitation Rate Development
Base Data
All Children

Calculation Step	PMPM Development	Category of Service						
		Inpatient Hospital	Outpatient Hospital	Physician	Drug	Dental	Other	Total
a	CY 2019 Member Months	559,047	559,047	559,047	559,047	559,047	559,047	
b	Total Paid Dollars	$11,157,766	$36,963,301	$35,887,727	$22,059,452	$17,229,691	$2,685,930	**$125,983,868**
c = b / a	CY 2019 PMPM Costs	$19.96	$66.12	$64.19	$39.46	$30.82	$4.80	**$225.35**
d	Non-Covered Services	1.000	1.000	1.000	1.000	1.000	0.992	**1.000**
e	Drug Services Rebate Adjustment	1.000	1.000	1.000	0.945	1.000	1.000	**0.990**
f	Provider Reimbursement Adjustment	1.000	1.000	0.996	1.000	1.000	1.000	**0.999**
g	IBNR Adjustment	1.030	1.004	1.003	1.000	1.004	1.000	**1.005**
h	Missing Data	1.004	1.008	1.001	1.022	1.000	1.010	**1.007**
i = Product of c through h	Adjusted CY 2019 PMPM Costs	$20.64	$66.96	$64.20	$38.14	$30.93	$4.81	**$225.68**

Exhibit 2
Mississippi Division of Medicaid
All Regions SFY 2022 CHIP Capitation Rate Development
Projection Assumptions
All Children

		Category of Service						
Calculation Step	**PMPM Development**	**Inpatient Hospital**	**Outpatient Hospital**	**Physician**	**Drug**	**Dental**	**Other**	**Total**
a	SFY 2022 Member Months	586,783	586,783	586,783	586,783	586,783	586,783	**586,783**
b	Adjusted CY 2019 PMPM Costs	$20.64	$66.96	$64.20	$38.14	$30.93	$4.81	**$225.68**
c	Utilization Trend Factors CY 2019 to SFY 2022	0.941	0.980	1.000	1.042	1.020	1.000	**0.999**
d	Charge Trend Factors CY 2019 to SFY 2022	1.000	1.000	1.000	1.085	1.000	1.000	**1.015**
e	PDL Adjustment	1.000	1.000	1.000	0.969	1.000	1.000	**0.994**
f	Emergency Transportation Adjustment	1.000	1.000	1.000	1.000	1.000	1.105	**1.002**
g	COVID-19 Vaccine Administration Adjustment	1.000	1.000	1.033	1.000	1.000	1.000	**1.009**
h = Product of b through g	Projected SFY 2022 PMPM Costs	$19.42	$65.63	$66.31	$41.77	$31.56	$5.32	**$230.00**

Exhibit 3
Mississippi Division of Medicaid
SFY 2022 CHIP Capitation Rate Development
Non-Service Expense Allocation Development

Rate Cell	*a* SFY 2022 PMPM Cost	*b* Fixed Non-Service Expense Load	*c* Non-Service Percentage	*d = c × i* Non-Service PMPM	*e* Margin Percentage	*f = e × i* Margin PMPM	*g* Premium Tax Percentage	*h = g × i* Premium Tax PMPM	*i = (a + b) / (1 - c - e - g)* Total	*j = a / i* Illustrative Target MLR[1]
All Children	$230.00	$7.19	6.29%	$16.78	1.80%	$4.80	3.00%	$8.00	$266.77	86.2%

[1] Includes all services incurred during SFY 2022 with payments made to providers as defined in Exhibit C of the CCO Contract, including fee-for-service payments, subcapitation payments, and settlement payments. Actual MLR, but not target MLR, will be populated with actual SFY 2022 CCO-specific values.

Exhibit 4
Mississippi Division of Medicaid
SFY 2022 MississippiCAN Capitation Rate Development
Service Category to Milliman *HCGs* Grouper Category Mapping

MR Line	Broad Category of Service	Description
I11a	Inpatient Facility	Medical - General
I11b	Inpatient Facility	Medical - Rehabilitation
I12	Inpatient Facility	Surgical
I13a	Inpatient Facility	Psychiatric - Hospital
I13b	Inpatient Facility	Psychiatric - Residential
I14a	Inpatient Facility	Alcohol and Drug Abuse - Hospital
I14b	Inpatient Facility	Alcohol and Drug Abuse - Residential
I21a	Inpatient Facility	Mat Norm Delivery
I21b	Inpatient Facility	Mat Norm Delivery - Mom\Baby Cmbnd
I22a	Inpatient Facility	Mat Csect Delivery
I22b	Inpatient Facility	Mat Csect Delivery - Mom\Baby Cmbnd
I23a	Inpatient Facility	Well Newborn - Normal Delivery
I23b	Inpatient Facility	Well Newborn - Csect Delivery
I23c	Inpatient Facility	Well Newborn - Unknown Delivery
I24	Inpatient Facility	Other Newborn
I25	Inpatient Facility	Maternity Non-Delivery
I31	Inpatient Facility	SNF
O10	Outpatient Facility	Observation
O11	Outpatient Facility	Emergency Room
O12a	Outpatient Facility	Surgery - Hospital Outpatient
O12b	Outpatient Facility	Surgery - Ambulatory Surgery Center
O13a	Outpatient Facility	Radiology General - Therapeutic
O13b	Outpatient Facility	Radiology General - Diagnostic
O14a	Outpatient Facility	Radiology - CT/MRI/PET - CT Scan
O14b	Outpatient Facility	Radiology - CT/MRI/PET - MRI
O14c	Outpatient Facility	Radiology - CT/MRI/PET - PET
O15	Outpatient Facility	Pathology/Lab
O16a	Outpatient Facility	Pharmacy - General
O16b	Outpatient Facility	Pharmacy - Chemotherapy
O17	Outpatient Facility	Cardiovascular
O18	Outpatient Facility	PT/OT/ST
O31a	Outpatient Facility	Psychiatric - Partial Hospitalization
O31b	Outpatient Facility	Psychiatric - Intensive Outpatient
O32a	Outpatient Facility	Alcohol & Drug Abuse - Partial Hospitalization
O32b	Outpatient Facility	Alcohol & Drug Abuse - Intensive Outpatient
O41a	Outpatient Facility	Other - General
O41b	Outpatient Facility	Other - Blood
O41d	Outpatient Facility	Other - Clinic
O41e	Outpatient Facility	Other - Diagnostic
O41f	Outpatient Facility	Other - Dialysis
O41g	Outpatient Facility	Other - DME/Supplies
O41h	Outpatient Facility	Other - Trtmt/SpcltySvcs
O41j	Outpatient Facility	Other - Pulmonary
O41l	Outpatient Facility	Other - Urgent Care
O51a	Outpatient Facility	Preventive - General
O51b	Outpatient Facility	Preventive - Colonoscopy
O51c	Outpatient Facility	Preventive - Mammography
O51d	Outpatient Facility	Preventive - Lab
P11	Physician	Inpatient Surgery
P13	Physician	Inpatient Anesthesia
P14	Physician	Outpatient Surgery
P15	Physician	Office Surgery
P16	Physician	Outpatient Anesthesia
P21a	Physician	Maternity - Normal Deliveries
P21b	Physician	Maternity - Cesarean Deliveries
P21c	Physician	Maternity - Non-Deliveries
P21d	Physician	Maternity - Ancillary
P21e	Physician	Maternity - Anesthesia
P31a	Physician	Inpatient Visits - General
P31b	Physician	Inpatient Visits - Extended Care Visits
P31c	Physician	Inpatient Visits - Critical Care Visits
P31d	Physician	Inpatient Visits - Medical
P31e	Physician	Inpatient Visits - Psychiatric
P31f	Physician	Inpatient Visits - Alcohol and Drug Abuse
P32c	Physician	Office/Home Visits - PCP
P32d	Physician	Office/Home Visits - Specialist
P33	Physician	Urgent Care Visits
P34a	Physician	Office Administered Drugs - General
P34b	Physician	Office Administered Drugs - Chemotherapy
P35	Physician	Allergy Testing
P36	Physician	Allergy Immunotherapy
P37a	Physician	Miscellaneous Medical - General
P37b	Physician	Miscellaneous Medical - Gastroenterology
P37c	Physician	Miscellaneous Medical - Ophthalmology
P37d	Physician	Miscellaneous Medical - Otorhinolaryngology
P37e	Physician	Miscellaneous Medical - Vestibular Function Tests
P37f	Physician	Miscellaneous Medical - Non-Invas. Vasc. Diag. Studies
P37g	Physician	Miscellaneous Medical - Pulmonology
P37h	Physician	Miscellaneous Medical - Neurology
P37i	Physician	Miscellaneous Medical - Central Nervous System Tests
P37j	Physician	Miscellaneous Medical - Dermatology
P37k	Physician	Miscellaneous Medical - Dialysis
P40a	Physician	Preventive Other - General
P40b	Physician	Preventive Other - Colonoscopy
P40c	Physician	Preventive Other - Mammography
P40d	Physician	Preventive Other - Lab
P41	Physician	Preventive Immunizations
P42	Physician	Preventive Well Baby Exams
P43	Physician	Preventive Physical Exams
P44	Physician	Vision Exams
P45	Physician	Hearing and Speech Exams
P51a	Physician	ER Visits and Observation Care - Observation Care
P51b	Physician	ER Visits and Observation Care - ER Visits
P53	Physician	Physical Therapy
P54	Physician	Cardiovascular
P55b	Physician	Radiology IP - CT Scan
P55c	Physician	Radiology IP - MRI
P55d	Physician	Radiology IP - PET
P55e	Physician	Radiology IP - General - Therapeutic
P55f	Physician	Radiology IP - General - Diagnostic
P56a	Physician	Radiology OP - General - Therapeutic
P56b	Physician	Radiology OP - General - Diagnostic
P57a	Physician	Radiology OP- CT/MRI/PET - CT Scan
P57b	Physician	Radiology OP- CT/MRI/PET - MRI
P57c	Physician	Radiology OP- CT/MRI/PET - PET
P58c	Physician	Radiology Office - General - Therapeutic
P58d	Physician	Radiology Office - General - Diagnostic
P58e	Physician	Radiology Office - General - Radiology Center - Therapeutic
P58f	Physician	Radiology Office - General - Radiology Center - Diagnostic
P59a	Physician	Radiology Office - CT/MRI/PET - CT Scan
P59b	Physician	Radiology Office - CT/MRI/PET - MRI
P59c	Physician	Radiology Office - CT/MRI/PET - PET
P59d	Physician	Radiology Office - CT/MRI/PET - CT Scan - Radiology Center
P59e	Physician	Radiology Office - CT/MRI/PET - MRI - Radiology Center
P59f	Physician	Radiology Office - CT/MRI/PET - PET - Radiology Center
P61a	Physician	Pathology/Lab - Inpatient & Outpatient - Inpatient
P61b	Physician	Pathology/Lab - Inpatient & Outpatient - Outpatient
P63a	Physician	Pathology/Lab - Office - General
P63b	Physician	Pathology/Lab - Office - Venipuncture
P63c	Physician	Pathology/Lab - Office - Independent Lab
P65	Physician	Chiropractor
P66	Physician	Outpatient Psychiatric
P67	Physician	Outpatient Alcohol & Drug Abuse
P81a	Pharmacy	Prescription Drugs - Non-Specialty Generic
P81b	Pharmacy	Prescription Drugs - Non-Specialty Multi Source Brand
P81c	Pharmacy	Prescription Drugs - Non-Specialty Single Source Brand
P81d	Pharmacy	Prescription Drugs - Non-Specialty Unknown Drug Type
P81e	Pharmacy	Prescription Drugs - OTC
P81g	Pharmacy	Prescription Drugs - Specialty
P82a	Other	Private Duty Nursing/Home Health - HH
P82b	Other	Private Duty Nursing/Home Health - Hospice
P83	Other	Ambulance
P84	Other	DME and Supplies
P85	Other	Prosthetics
P89	Other	Benefits Glasses/Contacts
P99a	Other	Benefits Other - General
P99b	Other	Benefits Other - Hearing Aids
P99c	Dental	Benefits Other - Dental
P99d	Other	Benefits Other - Acupuncture
P99e	Physician	Benefits Other - Reproductive Medicine
P99f	Physician	Benefits Other - Temporary Codes
P99g	Physician	Benefits Other - Documentation/Unclassified
P99h	Other	Benefits Other - Non-Emergency Transportation

Exhibit 5A
Mississippi Division of Medicaid
CHIP Historical Completed Non-Pharmacy PMPM Costs and Trends

PMPM Costs by Month[1]

Month	Member Months	Inpatient Hospital Services	Outpatient Hospital Services	Physician Services	Dental Services	Other Services	Non-Pharmacy Total
January 2017	48,546	$19.14	$65.43	$64.31	$31.99	$3.90	$184.77
February 2017	48,577	$19.84	$64.77	$65.32	$28.19	$3.42	$181.55
March 2017	48,544	$17.90	$71.01	$64.88	$32.91	$4.30	$191.00
April 2017	48,597	$21.00	$64.83	$56.03	$27.29	$4.06	$173.21
May 2017	48,844	$14.99	$62.57	$55.05	$26.76	$3.19	$162.56
June 2017	48,927	$62.37	$61.01	$53.45	$32.98	$4.34	$214.14
July 2017	49,023	$27.72	$68.14	$58.52	$35.70	$4.78	$194.87
August 2017	48,682	$24.12	$69.49	$68.60	$33.30	$4.55	$200.06
September 2017	48,421	$16.32	$73.43	$59.25	$26.94	$4.18	$180.12
October 2017	47,968	$20.78	$75.15	$67.49	$31.26	$4.53	$199.22
November 2017	47,998	$17.09	$81.02	$68.49	$28.61	$3.66	$198.87
December 2017	47,880	$18.23	$74.88	$62.38	$26.23	$3.67	$185.39
CY 2017[2]	**48,501**	**$23.29**	**$69.31**	**$61.98**	**$30.18**	**$4.05**	**$188.81**
January 2018	47,849	$22.69	$75.63	$69.06	$31.52	$3.66	$202.57
February 2018	47,722	$22.02	$78.11	$71.62	$29.64	$3.28	$204.67
March 2018	47,616	$31.04	$69.56	$61.39	$33.40	$4.49	$199.88
April 2018	47,244	$10.28	$66.98	$60.17	$28.99	$3.73	$170.16
May 2018	46,814	$20.21	$69.63	$58.06	$27.11	$3.99	$179.00
June 2018	46,818	$13.30	$60.53	$50.25	$32.85	$3.41	$160.33
July 2018	46,536	$40.34	$57.21	$62.31	$37.83	$4.70	$202.40
August 2018	46,571	$27.25	$63.39	$66.61	$33.16	$4.44	$194.85
September 2018	46,590	$20.21	$56.19	$60.55	$25.83	$3.83	$166.61
October 2018	46,389	$23.06	$67.67	$74.99	$31.26	$4.91	$201.89
November 2018	46,481	$26.83	$59.65	$64.61	$27.48	$5.25	$183.83
December 2018	46,571	$14.54	$66.00	$54.07	$23.09	$3.90	$161.59
CY 2018[2]	**46,933**	**$22.65**	**$65.88**	**$62.81**	**$30.18**	**$4.13**	**$185.65**
January 2019	46,621	$16.81	$80.94	$75.77	$34.58	$5.40	$213.50
February 2019	46,751	$22.36	$76.17	$78.07	$30.39	$4.04	$211.03
March 2019	46,717	$17.09	$72.67	$65.65	$32.24	$5.05	$192.70
April 2019	46,727	$17.35	$68.30	$64.70	$32.03	$4.57	$186.94
May 2019	46,738	$23.73	$65.74	$59.33	$27.69	$4.64	$181.13
June 2019	46,535	$18.19	$61.84	$50.30	$31.00	$4.19	$165.50
July 2019	46,496	$31.21	$60.91	$62.53	$39.37	$5.68	$199.71
August 2019	46,661	$24.64	$57.55	$63.77	$31.98	$5.73	$183.67
September 2019	46,605	$13.34	$65.52	$60.95	$27.89	$4.77	$172.47
October 2019	46,486	$19.11	$70.99	$68.95	$33.96	$6.06	$199.07
November 2019	46,313	$26.88	$58.79	$64.79	$26.10	$4.19	$180.75
December 2019	46,397	$16.18	$58.00	$59.53	$24.27	$3.43	$161.41
CY 2019[3]	**46,587**	**$20.57**	**$66.45**	**$64.53**	**$30.96**	**$4.81**	**$187.32**

Annual PMPM Trends

CY 2017 to CY 2018	-2.8%	-5.0%	1.3%	0.0%	2.1%	-1.7%
CY 2018 to CY 2019	-9.2%	0.9%	2.7%	2.6%	16.4%	0.9%
Annual PMPM Trend in SFY 2022 Capitation Rates[4]	-3.0%	-1.0%	0.0%	1.0%	0.0%	-0.5%

[1] CHIP encounters have been adjusted for PDL, Provider Settlement, and Financial to Encounter differences.
[2] CY 2017 and CY 2018 assumed to be fully complete with no explicit IBNR adjustment.
[3] CY 2019 IBNR as found on Exhibit 1 of the SFY 2022 rate report.
[4] Aggregate trend composited using CY 2019 PMPMs.

Exhibit 5B
Mississippi Division of Medicaid
Historical and Projected Pharmacy Utilization and Cost
MississippiCAN Children Rate Grouping (used for CHIP)

Traditional Top 25		CY 2019									Annualized Prospective Trends					
		Cost / Script			Util / 1000			PMPM Cost			Cost / Script			Utilization[1]		
GPI4	GPI Description	Generic	Brand	Total	Generic	Brand	Total	Generic	Brand	Total	Generic	Brand	Total	Generic	Brand	Total
6110	Amphetamines	$76.50	$291.27	$207.09	140.1	217.3	357.3	$0.89	$5.27	$6.17	1.0%	4.0%	3.6%	1.0%	1.0%	0.6%
6140	Stimulants - Misc.	$126.60	$347.07	$216.48	136.3	93.8	230.2	$1.44	$2.71	$4.15	1.0%	2.0%	1.7%	8.0%	8.0%	4.7%
4420	Sympathomimetics	$26.16	$108.84	$69.74	153.9	171.5	325.4	$0.34	$1.56	$1.89	1.0%	0.0%	0.2%	1.0%	1.0%	0.6%
1250	Influenza Agents	$99.34	$236.62	$101.00	205.7	2.5	208.2	$1.70	$0.05	$1.75	1.0%	0.0%	1.0%	1.0%	1.0%	0.6%
4440	Steroid Inhalants	$98.38	$205.90	$150.81	35.0	33.3	68.3	$0.29	$0.57	$0.86	1.0%	4.0%	3.0%	-2.0%	-2.0%	-1.2%
2710S	Insulin - Short / Intermediate Acting	$0.00	$632.22	$632.22	0.0	16.8	16.8	$0.00	$0.88	$0.88	1.0%	1.0%	1.0%	1.0%	1.0%	0.6%
4155	Antihistamines - Non-Sedating	$16.18	$31.86	$16.18	573.4	0.0	573.4	$0.77	$0.00	$0.77	1.0%	0.0%	1.0%	1.0%	1.0%	0.6%
8799	Otic Combinations	$61.76	$231.02	$217.77	3.4	39.9	43.3	$0.02	$0.77	$0.79	1.0%	8.0%	7.9%	-5.0%	-5.0%	-3.0%
4399	Cough/Cold/Allergy Combinations	$20.11	$14.57	$15.14	47.4	418.5	465.9	$0.08	$0.51	$0.59	1.0%	1.0%	1.0%	5.0%	5.0%	3.0%
9005	Acne Products	$75.75	$203.65	$113.40	40.3	16.8	57.2	$0.25	$0.29	$0.54	1.0%	0.0%	0.5%	2.0%	2.0%	1.2%
9055	Corticosteroids - Topical	$23.82	$225.12	$25.57	220.6	1.9	222.5	$0.44	$0.04	$0.47	1.0%	2.0%	1.1%	-2.0%	-2.0%	-1.2%
0120	Penicillin	$13.45	$0.00	$13.45	443.5	0.0	443.5	$0.50	$0.00	$0.50	1.0%	0.0%	1.0%	1.0%	1.0%	0.6%
4450	Leukotriene Modulators	$17.59	$235.88	$17.60	285.8	0.0	285.8	$0.42	$0.00	$0.42	1.0%	5.0%	1.0%	1.0%	1.0%	0.6%
0340	Macrolides	$20.19	$201.94	$20.20	246.1	0.0	246.1	$0.41	$0.00	$0.41	1.0%	0.0%	1.0%	0.0%	0.0%	0.0%
4927	Proton Pump Inhibitors	$80.99	$332.37	$86.32	56.8	1.2	58.1	$0.38	$0.03	$0.42	1.0%	4.0%	1.3%	5.0%	5.0%	3.0%
3890	Anaphylaxis Therapy Agents	$282.29	$602.79	$289.48	14.3	0.3	14.6	$0.34	$0.02	$0.35	1.0%	1.0%	1.0%	1.0%	1.0%	0.6%
6135	Attention-Deficit/Hyperactivity Disorder (ADHD) Agents	$54.76	$362.13	$57.47	48.8	0.4	49.2	$0.22	$0.01	$0.24	1.0%	1.0%	1.0%	3.0%	3.0%	1.8%
4220	Nasal Steroids	$16.93	$228.66	$27.24	155.5	8.0	163.4	$0.22	$0.15	$0.37	1.0%	9.0%	4.4%	1.0%	1.0%	0.6%
2210	Glucocorticosteroids	$15.36	$407.16	$15.41	259.7	0.0	259.7	$0.33	$0.00	$0.33	1.0%	1.0%	1.0%	1.0%	1.0%	0.6%
0230	Cephalosporin	$22.72	$0.00	$22.72	159.2	0.0	159.2	$0.30	$0.00	$0.30	1.0%	0.0%	1.0%	0.0%	0.0%	0.0%
9090	Scabicides & Pediculicides	$40.98	$265.27	$157.38	12.1	13.1	25.2	$0.04	$0.29	$0.33	1.0%	6.0%	5.4%	-10.0%	-10.0%	-6.1%
0199	Penicillin	$25.26	$402.16	$25.33	133.3	0.0	133.3	$0.28	$0.00	$0.28	1.0%	0.0%	1.0%	1.0%	1.0%	0.6%
2710L	Insulin - Long Acting	$0.00	$356.06	$356.06	0.0	10.2	10.2	$0.00	$0.30	$0.30	1.0%	5.0%	5.0%	3.0%	3.0%	1.8%
7260	Fibromyalgia Agents	$22.68	$792.44	$50.58	63.7	2.4	66.0	$0.12	$0.16	$0.28	1.0%	6.0%	3.9%	2.0%	2.0%	1.2%
2599	Combination Contraceptives - Oral	$21.41	$177.32	$42.22	87.6	13.5	101.1	$0.16	$0.20	$0.36	1.0%	9.0%	5.6%	0.0%	0.0%	0.0%
Other Traditional		$22.45	$114.97	$31.72	2,020.2	225.0	2,245.2	$3.78	$2.16	$5.94	1.0%	1.0%	1.0%	1.0%	1.0%	0.6%
Total Traditional		**$29.71**	**$148.95**	**$52.17**	**5,542.5**	**1,286.7**	**6,829.2**	**$13.72**	**$15.97**	**$29.69**	**1.0%**	**2.9%**	**2.0%**	**1.7%**	**1.8%**	**1.7%**
Specialty Top 5																
3010	Growth Hormones	$0.00	$4,359.96	$4,359.96	0.0	2.0	2.0	$0.00	$0.73	$0.73	0.0%	5.0%	5.0%	0.0%	0.0%	0.0%
1950	Monoclonal Antibodies	$0.00	$2,208.73	$2,208.73	0.0	4.6	4.6	$0.00	$0.84	$0.84	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
6627	Autoimmune Agents	$0.00	$6,254.26	$6,254.26	0.0	1.5	1.5	$0.00	$0.78	$0.78	0.0%	10.0%	10.0%	40.0%	40.0%	22.4%
4530	Cystic Fibrosis Agents	$0.00	$9,998.20	$9,998.20	0.0	0.7	0.7	$0.00	$0.55	$0.55	0.0%	5.0%	5.0%	0.0%	0.0%	0.0%
3090	Metabolic Modifiers	$69.91	$16,593.03	$3,934.97	0.8	0.3	1.1	$0.00	$0.35	$0.35	0.0%	5.0%	4.9%	0.0%	0.0%	0.0%
Other Specialty		$198.49	$3,607.91	$1,265.41	16.8	7.7	24.5	$0.28	$2.30	$2.58	0.0%	15.0%	13.5%	5.0%	5.0%	3.0%
Total Specialty		**$192.49**	**$4,002.60**	**$2,041.15**	**17.6**	**16.6**	**34.3**	**$0.28**	**$5.55**	**$5.83**	**0.0%**	**9.5%**	**9.1%**	**4.9%**	**8.1%**	**7.9%**
Total		**$30.22**	**$198.13**	**$62.11**	**5,560.1**	**1,303.3**	**6,863.5**	**$14.00**	**$21.52**	**$35.52**	**1.0%**	**4.8%**	**3.3%**	**1.7%**	**3.4%**	**2.8%**

[1] Prospective utilization trends apply for CY 2020 to SFY 2022. No utilization trends applied for CY 2019 to CY 2020. Composite utilization trends include mix component of trends.

Exhibit 6A
Mississippi Division of Medicaid
Development of CHIP Vaccine Expenses for SFY 2022 Rates
Cost per Vaccination Development

	a	*b*	*c = (a × 1) + (b × 2)*	*d*	*e = c × d*
		Vaccine Distribution			
Time Period	**% Single Dose Vaccine**	**% Two Dose Vaccine**	**Doses per Vaccination**	**Vaccine Fee per Dose**	**Total Cost per Vaccination**
2H 2021	75%	25%	1.25	$35.87	$44.84
1H 2022	75%	25%	1.25	$32.28	$40.35

Exhibit 6B
Mississippi Division of Medicaid
Development of CHIP Vaccine Expenses for SFY 2022 Rates
Uptake % by Month and Age Grouping

	Month	Non-Pregnant Adults	Children – Age 16 to 18	Children – Age 12 to 15	Children – Age 6 to 11	Children – Age 1 to 6	Newborns
	Jan-21						N/A
	Feb-21						N/A
	Mar-21						N/A
	Apr-21	30.00%	30.00%				N/A
	May-21	30.00%	30.00%				N/A
	Jun-21	2.50%	2.50%				N/A
	Jul-21	2.50%	2.50%	30.00%			N/A
	Aug-21	2.50%	2.50%	30.00%			N/A
	Sep-21	1.07%	1.07%	2.50%			N/A
	Oct-21	1.07%	1.07%	2.50%			N/A
	Nov-21	1.07%	1.07%	2.50%			N/A
	Dec-21	1.07%	1.07%	1.07%	30.00%		N/A
	Jan-22	1.07%	1.07%	1.07%	30.00%		N/A
	Feb-22	1.07%	1.07%	1.07%	2.50%		N/A
	Mar-22	1.07%	1.07%	1.07%	2.50%	30.00%	N/A
	Apr-22			1.07%	2.50%	30.00%	N/A
	May-22			1.07%	1.07%	2.50%	N/A
	Jun-22			1.07%	1.07%	2.50%	N/A
	Jul-22				1.07%	2.50%	N/A
	Aug-22				1.07%	1.07%	N/A
	Sep-22				1.07%	1.07%	N/A
	Oct-22				1.07%	1.07%	N/A
	Nov-22				1.07%	1.07%	N/A
	Dec-22					1.07%	N/A
	Jan-23					1.07%	N/A
	Feb-23					1.07%	N/A
	Mar-23						N/A
	All Time Periods	**75.00%**	**75.00%**	**75.00%**	**75.00%**	**75.00%**	**N/A**
	Total Uptake						
f	2H 2021	9.29%	9.29%	68.57%	30.00%	0.00%	N/A
g	1H 2022	3.21%	3.21%	6.43%	39.64%	65.00%	N/A
	Cost per Vaccination						
h = Exhibit 6A step e	2H 2021	$44.84	$44.84	$44.84	$44.84	$44.84	N/A
i = Exhibit 6A step e	1H 2022	$40.35	$40.35	$40.35	$40.35	$40.35	N/A
	Total Cost						
j = f × h	2H 2021	$4.16	$4.16	$30.75	$13.45	$0.00	N/A
k = g × i	1H 2022	$1.30	$1.30	$2.59	$16.00	$26.23	N/A
l = j + k	**SFY 2022 Total**	**$5.46**	**$5.46**	**$33.34**	**$29.45**	**$26.23**	**N/A**

Exhibit 6C
Mississippi Division of Medicaid
Development of CHIP Vaccine Expenses for SFY 2022 Rates
Vaccine Cost PMPM Calculations

Distribution by Group

	Non-Pregnant Adults	Children – Age 16 to 18	Children – Age 12 to 15	Children – Age 6 to 11	Children – Age 1 to 6	Newborns
	6.24%	12.32%	26.52%	34.95%	19.86%	0.11%

Costs PMPM

	Non-Pregnant Adults	Children – Age 16 to 18	Children – Age 12 to 15	Children – Age 6 to 11	Children – Age 1 to 6	Newborns
m = Exhibit 6B step l	$5.46	$5.46	$33.34	$29.45	$26.23	N/A

Total Cost Per Member	Total Cost PMPM
$25.36	$2.11

EXHIBIT 7

CHIP Expenditure Projection

Exhibit 7
Mississippi Division of Medicaid
SFY 2022 CHIP Capitation Rate Development
CHIP Expenditure Projection

Eligibility Category	*a* Projected SFY 2022 Exposures	*b* SFY 2022 Capitation Rates	*c = a * b* CHIP Estimated Cost	*d = c * 84.91%* Federal Estimated Cost[1]
All Children	586,783	$266.77	$156,534,538	$132,913,476

[1] For SFY 2022, EFMAP is calculated as the blend of six months using an EFMAP of 85.00% and six months using an EFMAP of 84.82%. Asssuming a PHE end as of December 31, 2021, the first six months of EFMAP projections reflect an additional 6.2% EFMAP up to a maximum of 85%.

APPENDIX A

Data Processing

APPENDIX A
Encounter Data Processing

A number of data sources are used to develop the base data for the SFY 2022 CHIP capitation rates.

- Medicaid eligibility data
- CCO encounter data
- CCO financial data

CY 2019 encounter data forms the primary base data for the SFY 2022 capitation rates. This section of the report outlines the Medicaid eligibility and CCO encounter data sources and steps to process the data.

ELIGIBILITY

DOM's MMIS vendor provided detailed eligibility data for CY 2019. We relied upon the 'CHP' lock in code for each eligibility span to include individuals enrolled in the CHIP program in the base period.

ENCOUNTER DATA

Encounter claims are included in the data provided by DOM's MMIS vendor. This data represents the actual amounts paid to the provider, so no repricing was done as part of the development of capitation rates. A claim processed by a CCO and submitted to DOM can be identified in the data using the following definition. Please note, the field names may vary from those provided in the encounter data submission from the CCOs.

- The 6th character of claim_id is '5' and cl_type is 'R'
- The 6th character of claim_id is '0' and cl_type is not 'R'

This logic was used for all service categories we used CY 2019 encounter data with runout through April 2020.

Only encounter claims for members flagged as a CHIP enrollee in the eligibility data were included in the base data. Encounter claims which failed to be mapped to a CHIP CCO enrollee were removed.

CCO encounters are rigorously vetted by Myers and Stauffer as part of their reconciliation of encounters against CCOs' cash disbursement journals (CDJs). As part of this reconciliation, Myers and Stauffer identifies encounter claims that are duplicates, voids, or replacements for other encounter claims. Myers and Stauffer shares these findings with CCOs at a claim level to ensure they are accurately determining the final, non-duplicated version of each paid claim. As a result of their analysis, Myers and Stauffer are able to reconcile closely to the CCOs' CDJs (historically within 2% on a paid basis). We use summaries provided by Myers and Stauffer to identify final, non-duplicative claims consistent with their CDJ reconciliation.

Lastly, the encounter data is run through Milliman's 2019 *Health Cost Guidelines*™ (*HCGs*) grouper to map the encounter data into detailed categories of service. These categories of service are then rolled up into six high level categories of service: inpatient, outpatient, physician, pharmacy, dental, and other. This mapping from detailed category of service to broad category of service is included as Exhibit 4.

After processing the data we review the encounter data for several considerations, including:

- Monthly encounter counts per member (including and excluding $0 payments)
- Monthly payments per member
- Average cost per unit
- Monthly units and payments by COS
- Quarterly units and payments relative to financials by COS
- Frequency of diagnosis completion by COS

FINANCIAL REPORTING DATA

For base data development, each CCO submitted a financial report reconciled to their organization's audited CY 2019 financial statements for Mississippi. The report submitted for CY 2019 includes earned premium, claim experience with run out through April 2020, best estimate IBNR claim amounts, subcapitated arrangements, non-service expenses, and membership. The reported membership was close in total to the MMIS enrollment, so we utilized the MMIS enrollment for rate development.

We worked with each CCO to validate that their reports were filled out consistently with the category of service and non-medical definitions used in the capitation rate development. Adjustments were made to the original submissions to help align these definitions.

APPENDIX B

CY 2018 and CY 2019 Databooks

Appendix B.1
Mississippi Division of Medicaid
Summary of CY 2018 CHIP Encounter Claims
CHIP Rate Cell

Member Months	563,201

	Total Costs	PMPM Costs
Inpatient Facility		
Medical	$3,558,014	$6.32
Surgical	$6,053,325	$10.75
Maternity / Deliveries	$136,567	$0.24
Psychiatric / Substance Abuse	$2,703,784	$4.80
Skilled Nursing Facility	$0	$0.00
Inpatient Behavioral Health Total	**$1,683,081**	**$2.99**
Inpatient Facility Total	**$12,451,690**	**$22.11**
Outpatient Facility		
Emergency Room	$13,782,143	$24.47
Urgent Care	$2,008	$0.00
Radiology / Pathology	$6,240,913	$11.08
Psychiatric / Alcohol & Drug Abuse	$386,410	$0.69
Pharmacy	$3,041,271	$5.40
Other	$14,728,977	$26.15
Outpatient Behavioral Health Total	**$380,690**	**$0.68**
Outpatient Facility Total	**$38,181,722**	**$67.79**
Physician		
IP Visits	$506,279	$0.90
IP Surgery	$548,227	$0.97
Office / Home Visits	$12,732,430	$22.61
Preventive Exams & Immunizations	$3,783,631	$6.72
Urgent Care Visits	$533,120	$0.95
ER Visits and Observation Care	$1,767,960	$3.14
OP Surgery	$5,021,471	$8.92
Physical Therapy	$1,196,045	$2.12
Psychiatric / Substance Abuse	$2,495,356	$4.43
Radiology / Pathology	$3,412,756	$6.06
Vision, Hearing, and Speech Exams	$2,389,519	$4.24
Other	$2,462,469	$4.37
Physician Behavioral Health Total	**$6,581,807**	**$11.69**
Physician Total	**$36,849,263**	**$65.43**
Pharmacy		
Pharmacy	$22,372,117	$39.72
Pharmacy Total	**$22,372,117**	**$39.72**
Dental		
Dental	$17,706,986	$31.44
Dental Total	**$17,706,986**	**$31.44**
Other		
Ambulance	$454,484	$0.81
Non-Emergency Transportation	$25	$0.00
DME	$1,058,211	$1.88
Glasses / Contacts	$817,556	$1.45
Other	$79,929	$0.14
Other Behavioral Health Total	**$15,907**	**$0.03**
Other Total	**$2,410,205**	**$4.28**
Total Behavioral Health	**$8,661,484**	**$15.38**
Grand Total	**$129,971,983**	**$230.77**

Appendix B.2
Mississippi Division of Medicaid
Summary of CY 2019 CHIP Encounter Claims
CHIP Rate Cell

Member Months	559,047

	Total Costs	PMPM Costs
Inpatient Facility		
Medical	$2,602,527	$4.66
Surgical	$4,870,679	$8.71
Maternity / Deliveries	$278,670	$0.50
Psychiatric / Substance Abuse	$3,405,890	$6.09
Skilled Nursing Facility	$0	$0.00
Missing Data	$47,963	$0.09
Inpatient Behavioral Health Total	**$2,305,871**	**$4.12**
Inpatient Facility Total	**$11,205,729**	**$20.04**
Outpatient Facility		
Emergency Room	$12,555,283	$22.46
Urgent Care	$2,456	$0.00
Radiology / Pathology	$6,023,862	$10.78
Psychiatric / Alcohol & Drug Abuse	$412,165	$0.74
Pharmacy	$2,455,547	$4.39
Other	$15,513,988	$27.75
Missing Data	$315,097	$0.56
Outpatient Behavioral Health Total	**$332,439**	**$0.59**
Outpatient Facility Total	**$37,278,398**	**$66.68**
Physician		
IP Visits	$467,088	$0.84
IP Surgery	$544,425	$0.97
Office / Home Visits	$12,994,416	$23.24
Preventive Exams & Immunizations	$3,686,735	$6.59
Urgent Care Visits	$688,511	$1.23
ER Visits and Observation Care	$1,772,817	$3.17
OP Surgery	$4,174,563	$7.47
Physical Therapy	$1,132,060	$2.02
Psychiatric / Substance Abuse	$2,857,854	$5.11
Radiology / Pathology	$3,302,520	$5.91
Vision, Hearing, and Speech Exams	$2,329,131	$4.17
Other	$1,937,606	$3.47
Missing Data	$38,240	$0.07
Physician Behavioral Health Total	**$5,066,312**	**$9.06**
Physician Total	**$35,925,966**	**$64.26**
Pharmacy		
Pharmacy	$22,059,452	$39.46
Missing Data	$468,496	$0.84
Pharmacy Total	**$22,527,949**	**$40.30**
Dental		
Dental	$17,229,691	$30.82
Missing Data	$1,792	$0.00
Dental Total	**$17,231,483**	**$30.82**
Other		
Ambulance	$656,149	$1.17
Non-Emergency Transportation	$615	$0.00
DME	$1,122,258	$2.01
Glasses / Contacts	$811,859	$1.45
Other	$95,050	$0.17
Missing Data	$26,034	$0.05
Other Behavioral Health Total	**$18,257**	**$0.03**
Other Total	**$2,711,965**	**$4.85**
Total Behavioral Health	**$7,722,879**	**$13.81**
Grand Total	**$126,881,490**	**$226.96**

APPENDIX C

Actuarial Certification of the SFY 2022 CHIP Capitation Rate

This report assumes the reader is familiar with the State of Mississippi's CHIP program, its benefits, and rate setting principles. The report was prepared solely to provide assistance to DOM to set SFY 2022 capitation rate for the CHIP program. It may not be appropriate for other purposes. Milliman does not intend to benefit, and assumes no duty or liability to, other parties who receive this work. This material should only be reviewed in its entirety.

September 8, 2021

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Senior Consulting Actuary

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September 8, 2021

Mississippi Division of Medicaid
Capitated Contracts Ratesetting
Actuarial Certification
SFY 2022 CHIP Capitation Rates

I, Jill Bruckert, am associated with the firm of Milliman, Inc., am a member of the American Academy of Actuaries, and meet its Qualification Standards for Statements of Actuarial Opinion. I was retained by the Mississippi Division of Medicaid (DOM) to perform an actuarial certification of the Children's Health Insurance Program (CHIP) capitation rates for July 1, 2021 through June 30, 2022 (SFY 2022) for filing with the Centers for Medicare and Medicaid Services (CMS). I reviewed the capitation rate development and am familiar with the following regulation and guidance:

- The relevant requirements of 42 CFR §438.3(c), 438.3(e), 438.4, 438.5, 438.6, and 438.7
- CMS "Appendix A, PAHP, PIHP, and MCO Contracts Financial Review Documentation for At-risk Capitated Contracts Ratesetting" dated November 10, 2014
- 2020 to 2021 Medicaid Managed Care Rate Development Guide
- Actuarial Standard of Practice 49

I examined the actuarial assumptions and actuarial methods used in setting the capitation rates for SFY 2022 dated September 8, 2021 and accompanying this certification.

To the best of my information, knowledge, and belief, for the SFY 2022 period, the capitation rates offered by DOM are in compliance with the relevant requirements of 42 CFR 438.4(b). The attached actuarial report describes the capitation rate setting methodology.

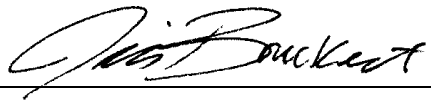
In my opinion, the capitation rates are actuarially sound, as defined in Actuarial Standard of Practice 49, were developed in accordance with generally accepted actuarial principles and practices, and are appropriate for the populations to be covered and the services to be furnished under the contract.

In making my opinion, I relied upon the accuracy of the underlying claim and eligibility data records and other information. I did not audit the data and calculations, but did review them for reasonableness and consistency and did not find material defects. In other respects, my examination included such review of the underlying assumptions and methods used and such tests of the calculations as I considered necessary. The reliance letter from DOM is included in Appendix D.

Actuarial methods, considerations, and analyses used in forming my opinion conform to the appropriate Standards of Practice as promulgated from time to time by the Actuarial Standards Board, whose standards form the basis of this Statement of Opinion.

It should be emphasized that capitation rates are a projection of future costs based on a set of assumptions. Actual costs will be dependent on each contracted coordinated care organization's situation and experience.

This Opinion assumes the reader is familiar with the CHIP program and actuarial rating techniques. The Opinion is intended for the State of Mississippi and the Centers for Medicare and Medicaid Services and should not be relied on by other parties. The reader should be advised by actuaries or other professionals competent in the area of actuarial rate projections of the type in this Opinion, so as to properly interpret the projection results.



Jill A. Bruckert
Member, American Academy of Actuaries
Senior Consulting Actuary
September 8, 2021

APPENDIX D

Data Reliance Letter

This report assumes the reader is familiar with the State of Mississippi's CHIP program, its benefits, and rate setting principles. The report was prepared solely to provide assistance to DOM to set SFY 2022 capitation rate for the CHIP program. It may not be appropriate for other purposes. Milliman does not intend to benefit, and assumes no duty or liability to, other parties who receive this work. This material should only be reviewed in its entirety.

OFFICE OF THE GOVERNOR
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MISSISSIPPI DIVISION OF MEDICAID

April 20, 2021

Jill A. Bruckert, FSA, MAAA
Senior Consulting Actuary
Milliman, Inc.
15800 W. Bluemound Road, Suite 100
Brookfield, WI 53005

Re: Data Reliance for Actuarial Certification of SFY 2022 CHIP Capitation Rate

Dear Jill:

I, Jennifer Wentworth, Deputy Administrator for Finance, for the Mississippi Division of Medicaid (DOM), hereby affirm that the data prepared and submitted to Milliman, Inc. (Milliman) for the purpose of certifying the CHIP capitation rate was prepared under my direction and, to the best of my knowledge and belief, is accurate, complete, and consistent with the data used to develop the capitation rates. The capitation rate is effective July 1, 2021 to June 30, 2022.

Provided data or information used in the development of the capitation rate includes:

1. Data from DOM's Medicaid Management Information Systems (MMIS) vendor:
    a. Encounter claims through December 2020
    b. Eligibility through December 2020
2. Data from DOM's vendor Myers and Stauffer:
    a. Detailed encounter claim status reports, including identification of duplicative or voided claims.
3. Supporting documentation provided by DOM:
    a. MLR reports for CY 2018 through September 2020
    b. PDL change analysis files and supporting exhibits provided by Change Healthcare
    c. Capitation reports showing monthly membership through February 2021
    d. Risk corridor parameters for SFY 2022
    e. Program and / or reimbursement changes as a result of SB 2799 passed March 30, 2021

f. Estimated fee schedule increase for the ambulance reimbursement change effective July 1, 2020

g. Fee schedule for COVID-19 vaccine administration costs for SFY 2022 and vaccine uptake rates by population

h. Anticipated end of the COVID-19 public health emergency on December 31, 2021

i. Other computer files and clarifying correspondence

Milliman relied on DOM and their MMIS vendor for the collection and processing of the CCO encounter data. Milliman relied on the CCOs to provide accurate CY 2019 financial data as certified by each CCO. Milliman did not audit the CCO financial data or the encounter data but did assess the data for reasonableness as documented in the capitation rate report.

Jennifer Wentworth

Jennifer Wentworth
Deputy Administrator for Finance
April 20, 2021

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Milliman is among the world's largest providers of actuarial and related products and services. The firm has consulting practices in life insurance and financial services, property & casualty insurance, healthcare, and employee benefits. Founded in 1947, Milliman is an independent firm with offices in major cities around the globe.

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