CONNECTICUT HEALTHCARE BENCHMARK INITIATIVE

Implementation Manual

Version 1.5

April 21, 2021

Version History

Version Number	Release Date	Summary of Changes
1.1	March 25, 2021	
1.2	March 30, 2021	Clarifies definition of "line of business" for the purposes of reporting variance data. Added Symphonix to the list of organizations under which UnitedHealthcare also conducts business.
1.3	April 5, 2021	Removed Fair Haven Community Center from the list of large provider entities and renumbered the assigned Organizational Identification Numbers accordingly.
1.4	April 19, 2021	Added ProHealth to the list of large provider entities and renumbered the assigned Organization Identification Numbers accordingly. Clarified that attribution should be based on contractual relationships in place during the reporting period. Updated the due date for submission of calendar years 2018 and 2019 data to June 18, 2021.
1.5	April 21, 2021	Clarified the parameters for completing clinical risk adjustment.

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Overview

On January 22, 2020, Governor Lamont signed Executive Order No. 5 directing the establishment of a statewide healthcare cost growth benchmark. With the goal of slowing the growth of healthcare spending and making healthcare more affordable for the citizens of Connecticut, Executive Order No. 5 directs the Office of Health Strategy (OHS) to develop annual healthcare cost growth benchmarks for calendar years (CY) 2021-2025. Connecticut is the fifth state to have a statewide healthcare cost growth benchmark, joining Massachusetts, Rhode Island, Delaware and Oregon.

Executive Order No. 5 also requires OHS to implement several additional, related initiatives, including:

- setting targets for increased primary care spending as a percentage of total healthcare spending to reach 10 percent by 2025;
- developing quality benchmarks across all public and private payers beginning in 2022, potentially including clinical quality measures, over- and under-utilization measures, and patient safety measures;
- monitoring and reporting annually on healthcare spending growth across public and private payers, and
- monitoring accountable care organizations and the adoption of alternative payment models.

This manual contains the technical and operational steps that OHS will take to implement the healthcare cost growth benchmark. It contains the methodology that OHS used to set the healthcare cost growth benchmark and the primary care target, and the methodologies for calculating performance against the benchmark and performance against the primary care spending target. This manual also contains the technical specifications for data reporting and collection.

The following supplemental materials are available on the Office of Health Strategy's website:

Attachment 1. Medicare Expenditure and Enrollment Request Template
https://portal.ct.gov/OHS/Pages/Guidance-for-Payer-and-Provider-Groups/Implementation-Manual

Attachment 2. Cost Growth Benchmark Performance Submission Template
https://portal.ct.gov/OHS/Pages/Guidance-for-Payer-and-Provider-Groups/Implementation-Manual

Definitions of Key Terms

- **Allowed Amount:** The amount the payer paid a provider, plus any member cost sharing for a claim. Allowed amount is typically a dedicated data field in claims data. Allowed amount is the basis for measuring the claims component of Total Medical Expense.
- **Healthcare Cost Growth Benchmark ("Benchmark"):** The Healthcare Cost Growth Benchmark ("Benchmark") is the targeted annual per capita growth rate for Connecticut's total healthcare spending, expressed as the percentage growth from the prior year's per capita spending. The Benchmark is set on a calendar year basis.
- **Insurance Carriers (Carriers):** A private health insurance company that offers one or more of the following: commercial insurance, benefit administration for self-insured employers, and Medicare managed care organization (MCO).
- **Large Provider Entity:** A term referring to an organization with primary care providers that meets a pre-established size threshold for public reporting.
- **Market:** The highest levels of categorization of the health insurance market. For example, Medicare and Medicare MCO are collectively referred to as the "Medicare Market." Medicaid Fee-for-Service is referred to as the "Medicaid Market." Individual, self-insured, small and large group, and student health insurance markets are collectively referred to as the "Commercial Market."
- **Measurement Year:** The Measurement Year is the calendar year for which performance is measured against the prior calendar year for purposes of calculating the growth in healthcare costs.
- **Net Cost of Private Health Insurance (NCPHI):** Measures the costs to Connecticut residents associated with the administration of private health insurance (including Medicare managed care). It is defined as the difference between health premiums earned and benefits incurred, and consists of insurers' costs of paying bills, advertising, sales commission and other administrative costs, premium taxes and profits (or contributions to reserves) or losses. NCPHI is reported as a component of THCE at the state, market and insurer levels.
- **Payer:** A term used to refer collectively to both insurance carriers and public programs that are submitting data to OHS.
- **Payer Recoveries:** Funds distributed by a payer and then later recouped (either through an adjustment from current or future payments, or a cash transfer) due to a review, audit or investigation of funds distribution by the payer. Payment recoveries is a separate, reportable field in total medical expense (TME) reporting.
- **Pharmacy Rebates:** Any rebates provided by pharmaceutical manufacturers to payers for prescription drugs, excluding manufacturer-provided fair market value bona fide

service fees.[1] The computation of THCE at the state, market and payer level is net of pharmacy rebates (i.e., other expenditures are reduced by the amount of the pharmacy rebates).[2]

- **Primary Care Spending Target ("Target"):** This Target is Connecticut's annual primary care spending as a percentage of total medical expenditures. The Target should reach 10 percent by calendar year 2025, as directed in Executive Order No. 5. Interim targets are set on an annual calendar year basis.
- **Total Healthcare Expenditures (THCE):** The total medical expense incurred by Connecticut residents for all healthcare services for all payers reporting to OHS, plus the insurers' Net Cost of Private Health Insurance. Defining specifications of THCE are included in Section III.B.
- **Total Healthcare Expenditures Per Capita:** Total Healthcare Expenditures (as defined above) divided by Connecticut's total state population. The annual change in THCE per capita is compared to the Benchmark at the state, market and payer levels. THCE will not be reported at the large provider entity level.
- **Total Medical Expense (TME):** The sum of the Allowed Amount of total claims and total non-claims spending paid to providers incurred by Connecticut residents for all healthcare services. TME is reported at multiple levels: state, market, payer and provider level. TME is reported net of Pharmacy Rebates at the state, market and payer levels only. Payers report TME by line of business (e.g., individual, self-insured, large group, small group, Medicare, Medicaid, Medicare/Medicaid dually eligible) and at the large provider entity level whenever possible. More detailed TME reporting specifications are contained in the Appendices of this manual.

[1] Fair market value bona fide service fees are fees paid by a manufacturer to a third party (e.g., insurer, pharmacy benefit manager, etc.) that represent fair market value for a bona fide, itemized service actually performed on behalf of the manufacturer that the manufacturer would otherwise perform (or contract for) in the absence of the service arrangement (e.g., data service fees, distribution service fees, patient care management programs, etc.).

[2] CMS is unable to report pharmaceutical rebates for traditional Medicare beneficiaries (i.e., FFS Medicare). Therefore, in the computations of THCE at the state and Medicare market levels, spending will be gross of Medicare FFS pharmaceutical rebates.

I. Healthcare Cost Growth Benchmark Methodology

The Benchmark is based on a calculated and pre-determined blend of the growth in the forecasted per capita potential gross state product (PGSP), and the forecasted growth in median income, determined in advance of the performance period.

Table 1 below presents the Healthcare Cost Growth Benchmark methodology, which is a weighted blend of PGSP and median income with a two year add-on factor. The add-on factor recognizes that the weighted methodology's initial value of 2.9% would have been difficult for the payers and providers to meet immediately given typical contracting cycles and the effect of COVID-19 on healthcare utilization patterns. As shown in **Table 1**, the methodology provides for a two-year adjustment to ease into the final target.

Table 1. Cost Growth Benchmark Methodology

Calendar Year	Cost Growth Benchmark Methodology	Add-on Factor
2021	20% PGSP / 80% Median Income	0.5%
2022	20% PGSP / 80% Median Income	0.3%
2023	20% PGSP / 80% Median Income	0.0%
2024	20% PGSP / 80% Median Income	0.0%
2025	20% PGSP / 80% Median Income	0.0%

To calculate the forecasted long-term (2026-2030) per capita PGSP, Connecticut uses the same formula used by Massachusetts, Delaware and Rhode Island, the source for the formula listed below is available in **Appendix K**:

PGSP = *(expected growth in national labor force productivity + expected growth in the state's labor force + expected national inflation) – expected state population growth*

As calculated by OHS, the forecasted per capita PGSP for Connecticut is 3.7%. The forecasted median household income growth for 2026 – 2030 in Connecticut is 2.7%.[3] **Table 2** below presents the Benchmark, using the blended formula defined in **Table 1**.

Table 2. Healthcare Cost Growth Benchmark Values 2021-2025

Calendar Year	Cost Growth Benchmark Values
2021	3.4%
2022	3.2%
2023	2.9%
2024	2.9%

[3] Based on annual growth rate data purchased from IHS Markit by the Connecticut Office of Policy and Management and made available to OHS.

Calendar Year	Cost Growth Benchmark Values
2025	2.9%

In the event of a sharp rise in inflation during the 2021 to 2025 timeframe, OHS – working with its advisory bodies – will revisit the Benchmark methodology and calculation.

II. Primary Care Spending Target Methodology

OHS developed the definition of primary care providers and spending with the assistance of its advisory bodies. OHS will utilize this definition, as detailed in section IV below to calculate statewide spending against the Target established in Executive Order No. 5. The advisory bodies recommended that OHS separately calculate spending associated with primary care services provided by obstetrics/gynecology (OB/GYN) providers and midwifery for monitoring purposes.

The Target for calendar year 2021 is 5.0 percent, using OHS' definition of primary care spending. It is conservative given that the current best estimate of statewide spending on primary care is 4.8 percent. OHS calculated a statewide weighted average of current primary care spending by total medical expenditures. OHS utilized commercial and Medicare data from UConn and Medicaid data from Freedman Healthcare and the Department of Social Services. OHS' advisory bodies recommended setting a conservative target for the first year of the Target due to the lack of payer-reported baseline data, utilization changes occurring due to COVID-19, and the proximity of the 2021 measurement period limiting payer actions to increase primary care spending in 2021.

OHS will establish Primary Care Spending Targets for calendar years 2022-2024 in late 2021, after receiving guidance from its advisory bodies.

III. Methodology for Assessing Performance Against the Healthcare Cost Growth Benchmark

OHS will annually report performance relative to the Healthcare Cost Growth Benchmark at four levels: (1) the State, (2) health insurance market (e.g., Medicare, Medicaid and Commercial), (3) individual payer by line of business, and (4) large provider entity (for provider entities of a pre-defined size). Data at the individual payer and large provider entity levels will be risk adjusted. To do so, OHS will collect and perform analyses on data from payers in the state. This section contains the methodology for measuring the growth in healthcare spending at each level, including which data are necessary to collect and which calculations need to be performed.[4] This section is organized as follows:

A. Methodology for Measuring Total Healthcare Expenditures (THCE)

B. Data Sources for THCE

C. Public Reporting of Cost Growth Benchmark Performance

D. Timeline for Measuring and Reporting the Healthcare Cost Growth Benchmark

A. Methodology for Measuring Total Healthcare Expenditures

To assess changes in the amount of healthcare spending, OHS will calculate THCE annually. The THCE data sources are described in Section III.B. below and include insurers, the Centers for Medicare and Medicaid Services (CMS), the Connecticut Department of Social Services (DSS), the Connecticut Department of Correction (DOC), and the Veterans Health Administration (VHA).

OHS will measure THCE on an aggregate dollar and per capita basis. The aggregate dollar figure will be for informational purposes only. The change in THCE on a per capita basis will be used to assess performance against the Benchmark.

THCE (in aggregate) =

Commercial TME + Medicare Managed Care TME + Medicare FFS TME +
DSS Medicaid TME + DOC TME + VHA TME + Insurer NCPHI

[4] These methodologies and reporting specifications are derived, in part, from materials published by the Massachusetts Center for Health Information and Analysis, the Delaware Health Care Commission, and the Rhode Island Health Care Cost Trends Steering Committee. These materials have been edited from previously published materials to reflect the Connecticut Healthcare Benchmark Initiative.

$$THCE\ (per\ capita) = \frac{\left(\begin{array}{c} Commercial\ TME + Medicare\ Managed\ Care\ TME + Medicare\ FFS\ TME + \\ DSS\ Medicaid\ TME + DOC\ TME + VHA\ TME + Insurer\ NCPHI \end{array}\right)}{Connecticut\ Population}$$

The percentage change in THCE per capita between the Measurement Year and the prior calendar year will be used to assess performance against the Benchmark applicable to the specific Measurement Year.

The defining specifications of THCE are as follows.

- THCE includes spending on behalf of Connecticut residents who are insured by Medicare, Medicaid or commercial carriers, as well as residents who obtain coverage from self-insured employers.
- It includes spending on behalf of Connecticut residents who receive care from any provider in or outside of Connecticut, inclusive of those patients who seek care in border states, who may be Connecticut residents but spend part of their time living in another state (i.e., students or "snow-birds"), or those who received care in another state while traveling.
- It excludes spending for out-of-state residents receiving care from in-state providers.
- It includes spending for Connecticut residents who receive healthcare coverage through the Veterans Health Administration, as well as spending for Connecticut residents incarcerated in a state correctional facility.
- It excludes spending for uninsured individuals. OHS is examining the feasibility of including these expenditures in the future.
- It includes spending on healthcare services/benefits. It excludes non-medical spending, even if such spending is made by a payer (e.g., gym memberships).
- Vision and dental spending are generally excluded except in instances where vision and dental services are covered as a medical benefit or are a covered benefit under Medicaid and Medicare. OHS is examining the feasibility of including spending by dental insurance carriers in the future.
- It represents the total Allowed Amount, which is inclusive both of amounts covered by payers and out-of-pocket spending associated with insured medical expenditures (e.g., copays and deductibles). In order to avoid double counting expenditures, healthcare premium payments are not included. Also, due to the lack of available data, other out-of-pocket expenditures recorded by providers, but not by insurers, are not included

(e.g., "charity care" or spending for medical care by residents of Connecticut who cannot afford to pay providers, privately purchased healthcare services).

- It includes all insurance market segments, including public and private payers listed in this manual, fully and self-insured, and student insurance.
- The administrative costs and underwriting gain/loss of insurers, referred to as the NCPHI, are included (see Section III.B. for more detail).
- TME data is only collected from a payer when it is the primary payer for a claim. The primary payer will report on the allowed amount. If the secondary payer of the claim were to report, it would cause double counting of a portion of the Allowed Amount by the primary payer.
- TME is adjusted to account for any pharmacy rebates received by the payer, by subtracting the rebates (revenue) from the payer's total medical expense. The exception to this is with Medicare FFS spending as CMS will not share this information at the state level.
- Provider resources applied in the delivery of care for uninsured Connecticut residents should not be included in calculations of healthcare spending because they are technically not "spending" as defined herein.[5]

B. Data Sources for THCE

Data for THCE comes from several sources. Payers need to report TME for all lines of business and, in some instances, payers will need to report data for the State to calculate the NCPHI. Other data sources include CMS, DSS, DOC and the VHA. **Table 3**, below, outlines the data source by THCE category and the location of the detailed specification or collection process within this manual.

Table 3. Data Sources for THCE

THCE Category	Data Source	Location of Data Specification/Collection Process in Manual
Expenditures from Payers		
Payer full claim (comprehensive coverage with no carve-outs)	TME reported by payers	Appendix A

[5] Recognizing that the definition of THCE is limited to individuals with health insurance coverage and that financial burden of healthcare for those without health insurance is high, OHS' advisory bodies requested that OHS conduct supplemental tracking and reporting of costs for uninsured individuals to the extent such data are available.

THCE Category	Data Source	Location of Data Specification/Collection Process in Manual
Payer partial claim (coverage with carve-outs, such as pharmacy) calculated values (applicable to commercial carriers only)	TME reported by payers, with estimates produced by payers	Appendix A
Payer non-claim payments	TME reported by payers	Appendix A
Prescription drug spending for Medicare managed care organization, for market-level reporting only (*For insurer-level reporting, the data source is in insurer-reported TME.)*[6]	CMS	Appendix E
Expenditures from Public Programs		
Medicaid claim and other included spending calculated values	DSS	Appendix B
Medicare FFS claim (Parts A, B and D) calculated values	CMS	Appendix E
DOC summarized data	DOC	Appendix C
VHA summarized data	VHA	Appendix G
Net Cost of Private Health Insurance		
Insurer NCPHI	Calculated from regulatory reports submitted by the insurers or obtained through public sources	Appendix H
Pharmacy Rebates		
Insurers	Pharmacy rebate data filing by insurers	Appendix A
Medicaid Program	Pharmacy rebate data filing by DSS	Appendix B

[6] CMS will provide OHS with allowed amounts for Medicare FFS beneficiaries with stand-alone prescription drug plans (PDP) and for Medicare managed care beneficiaries with stand-alone PDP and Medicare Advantage Prescription Drug Plans (MAPD) in aggregate. CMS should be the source of pharmacy expenditure data for market-level spending as it will include all stand-alone PDP spending, even by insurers not reporting TME to OHS and insurers specifically excluding stand-alone PDP spending from TME. For reporting at the insurer-level, each individual insurer should be the source of spending. However, stand-alone PDP spending has been excluded from reporting at the insurer-level because doing so would compromise the integrity of the spending calculations.

THCE Category	Data Source	Location of Data Specification/Collection Process in Manual
Population Statistics		
Population of Connecticut	Connecticut State Department of Public Health	Appendix I

Insurance Carrier TME Data

TME represents all payments for medical expenses for the Connecticut resident population and will be reported by payers for all members (including fully and self-insured members). TME is adjusted (reduced) to account for pharmacy rebates.

Annually, OHS will direct applicable insurers to submit TME data using the specifications outlined in **Appendix A** and the template provided as **Attachment 2**. (Specifications for public programs to submit their TME are included in **Appendices B, C, E** and **G**, with the Medicare template provided as **Attachment 1). Table 4**, below, lists which insurance carriers should report for their commercial and Medicare managed care markets.[7]

Table 4. Insurance Carriers Requested to Report TME Data by Market

Carrier	Commercial Fully and Self-Insured	Medicare Managed Care[8]
Aetna Health & Life	X	X
Anthem	X	X
Cigna	X	
ConnectiCare	X	X
Harvard Pilgrim Health Care	X	
UnitedHealthcare[9]	X	X

The TME data include claims and non-claims payments[10] incurred for a single calendar year. Insurance carriers should submit these data based on Allowed Amounts. Carriers are expected to adjust expenditure data for a reasonable and appropriate estimate of unpaid claims liability (i.e., incurred but not reported (IBNR) or incurred but not paid (IBNP)), when claims run-out alone is not sufficient. TME spending is only reported by a carrier when it is the primary

[7] Because the market may change, this table may need to be updated over time.
[8] Medicare Managed Care includes the Medicare Advantage market and Medicare-related expenditures for the Medicare-Medicaid dual eligible market. Medicare Managed Care Organization should submit spending within special needs plan products, but not spending within stand-alone prescription drug plan products.
[9] UnitedHealthcare also does business as Oxford Health, Sierra Health and Life and Symphonix.
[10] Claims payments and payments to providers associated with a healthcare claim. Non-claims payments are payments to providers that are not associated with a claim and include capitation payments, pay-for-performance bonuses, risk settlements, care management payments, etc.

insurer on the claim, as secondary coverage expenditures would generally double count a portion of the Allowed Amount by the primary insurer.

In some circumstances, carriers are only able to report claims payments for a subset of medical services due to benefit design in which the contracting employer may "carve out" some services, such as pharmacy or behavioral health. In other carve-out instances, however, carriers may be unable to obtain the payment information and do not hold the insurance risk for the carved-out services. Thus, carriers will need to report this type of TME data separately in the partial-claim category (see **Appendix A** for more information). To estimate the full TME amount for the partial claim population, the insurer will need to adjust the reported partial-claim TME data using its full-claim population as an estimate. This adjustment will allow OHS to estimate the full spending amount without having to collect data from carve-out vendors. For example, for those members for whom pharmacy benefits are carved out, the insurance carrier might include its commercial market book-of-business average pharmacy spending per-member, per-month (PMPM) for the same year, calculated on members who had primary coverage, applied to all member months for which the carve-out applied. Before this adjustment is made, insurers should discuss appropriate methodologies with OHS, recognizing there is no standard approach to performing this estimate.

Appendix A includes instructions for insurance carriers to submit pharmacy rebate data so that OHS can subtract pharmacy rebates from THCE and TME at the market and insurer levels. Carriers will need to proportionally allocate total pharmacy rebates by line of business to Connecticut resident members, unless rebates can be directly associated with a specific line of business.

NCPHI Data

The final component of THCE is NCPHI. This element captures the costs to Connecticut residents associated with the administration activities and underwriting gain/loss of insurers. It is the difference between health premiums earned and benefits incurred. It includes all categories of administrative expenditures, net additions to reserves, rate credits and dividends, and profits and losses.

OHS will calculate NCPHI for all Connecticut residents whose insurers are submitting data to OHS, using data obtained from insurance carriers and other public sources. The methodology is provided in **Appendix H.**

C. Public Reporting of Cost Growth Benchmark Performance

To publicly report on performance against the Benchmark and as directed in Executive Order No. 5, OHS will report at the statewide level, with several "drill-down" analyses. The type of public reporting of performance relative to the Benchmark will likely evolve over time. Therefore, this manual will be updated as the public reporting processes change.

Table 5 outlines the minimum level at which OHS will publicly report performance. When reporting TME, OHS will report on a per-member per year (PMPY) basis, which calculates the average amount of spending per member for a particular market segment.

Table 5. Levels at Which Public Reporting of Performance Against Benchmark Will Occur

Level	THCE	TME and / or NCPHI Separately
State level	Aggregate and per capita Compare per capita rate of change against Benchmark	Report TME net of rebates and NCPHI components
Commercial market	Aggregate and PMPY Compare PMPY rate of change against Benchmark	Report TME net of rebates and NCPHI components
Medicare market	Aggregate and PMPY Compare PMPY rate of change against Benchmark	Report TME net of rebates (NCPHI not applicable to CMS-reported data)
Medicaid market	Aggregate and PMPY Compare PMPY rate of change against Benchmark	Report TME net of rebates (NCPHI not applicable)
Insurance carrier[11]	PMPY Compare PMPY rate of change against Benchmark	Report TME net of rebates and NCPHI components
Large provider entity	N/A	Report TME gross of rebates only, PMPY Compare PMPY rate of change against Benchmark by line of business

Reporting TME by Service Category

A goal with the collection of TME data is to obtain summary-level payer data segmented into a manageable number of distinct service categories that all payers can consistently and accurately report. By analyzing service category spending, OHS will be able to understand the scale of

[11] OHS is intending on reporting the performance of the state employee health plan through the Office of the State Comptroller (OSC's) as a stand-alone insurance carrier. Data representing state employees will also appear in OSC's TPAs and therefore, when analyzing the data, OHS must ensure to not duplicate OSC spending at the commercial market or state levels.

changes in individual service categories and the share of TME spending changes that are attributable to each service category.

OHS requests payers to report the following individual service categories using the definitions provided in the Appendices of this manual:

- Hospital Inpatient
- Hospital Outpatient
- Professional (Primary Care)
- Professional (Specialty Care)
- Professional Other
- Long-Term Care
- Pharmacy[12]
- Pharmacy Rebates
- Other
- Non Claims

More information on what insurance carriers and DSS should include within each of the respective service categories can be found in **Appendix A** and **B**, respectively. Given that most of these categories are not defined with specific codes, OHS will acknowledge that there may be some limitations in consistent interpretation across payers when analyzing and reporting these data publicly. In future years, additional, more detailed categories of services may be added, such as lab and imaging, for example, to deepen OHS's analysis capabilities.

Reporting TME by Large Provider Entity and Members Unattributed to a Large Provider Entity

To measure and publicly report performance against the benchmark at the provider entity level, it is necessary for individual patients to be attributed or assigned to a primary care provider, and those primary care providers to be organized into provider entities large enough for their performance to be statistically valid. Insurance carriers are asked to utilize their own primary care attribution methodology to attribute patients to a primary care provider. Data will be reported at the large provider entity level by line of business for each payer, which is outlined in the TME specification in **Appendix A.** Data must include all TME for all attributed members, including when care was provided by providers outside of or not affiliated with the respective large provider entity. Furthermore, for OHS to calculate market performance, insurance carriers must report spending in aggregate for members not attributed to a large provider entity. **Appendix A** contains the details of insurer attribution to a large provider entity**.**

[12] Insurers that have both Medicare Advantage and stand-alone PDP lines of business must exclude their stand-alone PDP data from their TME submission. Stand-alone PDP expenditure data will be obtained from CMS.

To publicly report on Connecticut large provider entity performance, the Technical Team is slated to make recommendations on the minimum number of attributed members required to report provider performance in CY 2021 prior to publication of any pre-benchmark data.

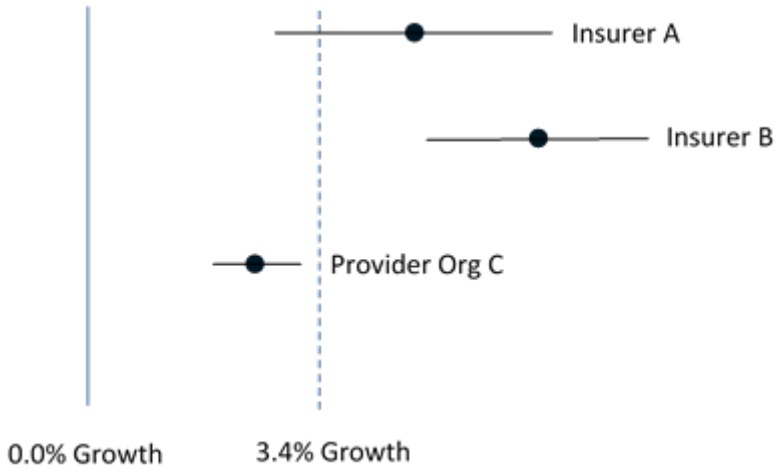
OHS requests insurers to submit non-adjusted TME data. OHS will adjust TME based on member clinical risk using insurer-reported clinical risk-adjustment scores and the adjustment will be automatically calculated within the insurance carrier data submission template for full transparency of the calculation. Each insurance carrier is permitted to use its own clinical risk adjustment tool to reduce the burden and cost of asking carriers to use one consistent model. Research suggests that performance differences between risk adjustment tools are relatively minimal.[13] Insurance carriers will be required to report which risk-adjustment tool they use and the underlying methodology in order to support transparency and understanding of the tools.

Statistical Testing to Determine Performance Against the Benchmark

OHS intends to conduct statistical significance testing to assess insurers' and provider entities' performance against the cost growth benchmark. This will involve developing confidence intervals around each insurer and provider organization's cost growth, and determining whether the confidence interval intersects with the benchmark. OHS will then categorize payers and providers as illustrated below:

- **Upper confidence interval is fully below the benchmark –** this would indicate that the insurer or provider has achieved the benchmark. (Provider Org C in the illustration below)
- **Confidence interval intersects with benchmark –** under this circumstance, OHS would be unable to determine whether an insurer or provider entity's performance did or did not meet the benchmark. (Insurer A in the illustration below)
- **Lower confidence interval is over the benchmark –** this would indicate that the insurer or provider entity exceeded the benchmark. (Insurer B in the illustration below)

[13] Conversation with Arlene Ash, PhD, Professor and Division Chief for Biostatistics and Health Services Research in the Department of Quantitative Health Services at the University of Massachusetts Medical School, May 2020.



To support the development of confidence intervals, OHS requests insurers to provide variance information on non-adjusted TME data. Insurers will need to provide variance information for:

- each line of business; and
- each provider entity by line of business.

Since healthcare cost growth will be calculated using risk-adjusted claims spending, OHS will also adjust the variance used to calculate the confidence intervals. This will be done by applying same insurer-reported risk-adjustment score that is used to risk-adjust TME. The formula for adjusting the variance will be as follows:

Adjusted Variance =

$$\textit{Unadjusted Variance} / (\textit{Insurer-Reported Clinical Risk Score})^2$$

Details on how OHS will calculate the confidence intervals are included in Appendix L.

D. Timeline for Measuring and Reporting the Cost Growth Benchmark

OHS will publish THCE statistics annually. It will follow a specific timeline to collect and report baseline data. Specifically, CY 2018 and CY 2019 performance will be collected in spring 2021 and reported in summer/fall 2021. OHS anticipates that the first year of reporting may involve a longer timeline due to the time required to process questions, develop reporting templates, create data exhibits and resolve unanticipated issues.

After collection of baseline data, OHS will publish THCE statistics annually following the respective reporting year. Due to the timing of alternative model payment settlements, insurers will need to annually submit two years' worth of data: (1) the performance year data (which is the calendar year immediately preceding the year in which TME data are reported) which will contain insurer estimates of alternative payment model settlements, and (2) the TME data for

the calendar year prior to the performance year, which will be resubmitted to reflect final settlements that had to be estimated in prior year reporting.

IV. Methodology for Assessing Performance Against the Primary Care Spending Target

OHS will annually report performance relative to the Primary Care Spending Target at the State level. It may also report performance by health insurance market (e.g., Medicaid and commercial) and risk-adjusted performance by individual payer by line of business, and by large provider entity level (for provider entities of a pre-defined size).[14]

This section contains the methodology for measuring primary care spending at each level, including which data are necessary to collect and which calculations need to be performed. OHS will collect data for the Primary Care Spending Target and the Cost Growth Benchmark using one template. Therefore, this section frequently refers to Section III, which outlines the methodology for the Benchmark. OHS, however, will separately perform calculations for the Target. This section is organized as follows:

A. Methodology for Measuring Primary Care Spending

B. Data Sources for Primary Care Spending

C. Public Reporting of Primary Care Spend Target Performance

D. Timeline for Measuring and Reporting the Primary Care Spend Target

A. Methodology for Measuring Primary Care Spending

To assess primary care spending as a percentage of TME, OHS will calculate both statewide primary care spending and TME annually. The primary care spending sources are described in Section IV.C below and include insurance carriers and DSS.

Statewide primary care spending is a weighted average calculation based on TME. It is calculated by multiplying each insurance market's percentage of spending on primary care by its total market share based on TME.

Statewide primary care spending (in aggregate) =

$$\left(\textit{commercial primary care spending} \times \frac{\textit{commercial TME}}{\textit{TME}}\right) + \left(\textit{Medicare Managed Care primary care spending} \times \frac{\textit{Medicare Managed Care TME}}{\textit{TME}}\right) + \left(\textit{Medicare FFS primary care spending} \times \frac{\textit{Medicare FFS TME}}{\textit{TME}}\right) + \left(\textit{Medicaid primary care spending} \times \frac{\textit{Medicaid TME}}{\textit{TME}}\right)$$

[14] OHS will also collect and perform analyses on additional data from payers to monitor spending associated with primary care services provided by OB/GYN providers and midwifery.

TME for the Primary Care Spending Target is different than for the Cost Growth Benchmark. TME for the Target includes all of the spending categories captured for the Benchmark less long-term care (LTC).

TME, less LTC (in aggregate) =

(commercial TME – commercial LTC) + (Medicare managed care TME – Medicare managed care LTC) + (Medicare FFS TME – Medicare FFS LTC) + (Medicaid TME – Medicaid LTC)

Statewide primary care spending as a percentage of TME, less LTC =

$$\frac{statewide\ primary\ care\ spending\ (in\ aggregate)}{TME, less\ LTC\ (in\ aggregate)}$$

The defining specifications for primary care spending and TME are almost identical to the defining specifications of TME included in Section III.A with the following exceptions:

- The Target does not include spending for Connecticut residents who receive coverage through the Veterans Health Administration or who are incarcerated in a state correctional facility.
- The Target does not include NCPHI.

B. Data Sources for Primary Care Spending

Data for primary care spending comes from several sources. Payers need to report primary care spending for all lines of business. Other data sources include DSS. **Table 6**, below, outlines the data source by primary care spending category and the location of the detailed specification or collection process within this manual.

Table 6. Data Sources for Primary Care Spending

Primary Care Spending Category	Data Source	Location of Data Specification/Collection Process in Manual
Expenditures from Payers		
Payer full claim (comprehensive coverage with no carve-outs)	Primary care spending reported by payers	Appendix A
Payer partial claim (coverage with carve-outs, such as pharmacy) calculated values (applicable to commercial carriers only)	Primary care spending reported by payers, with estimates produced by payers	Appendix A

Primary Care Spending Category	Data Source	Location of Data Specification/Collection Process in Manual
Payer non-claim payments	Primary care spending reported by payers	Appendix A
Expenditures from Public Programs		
Medicaid claim and other included spending calculated values	DSS	Appendix B
Medicare FFS claim (Parts A, B and D) calculated values	APCD	Appendix F

Insurance Carrier TME, less LTC and Primary Care Spending Data

TME represents all payments for medical expenses for the Connecticut resident population and will be reported by payers for all members (included fully and self-insured members) for the Benchmark. It is adjusted (reduced) to account for pharmacy rebates. Primary care spending is one component of TME and will be analyzed separately for the Target. OHS will utilize the TME data payers submit for the Benchmark, less LTC, in addition to the primary care spending submitted for the Benchmark and the Target, to calculate statewide primary care spending as a percentage of TME, less LTC annually.

Annually, OHS will direct applicable insurers to submit TME and primary care spending data using the specifications outlined in **Appendix A** and the template provided as **Attachment 2**. (Specifications for public programs to submit their TME are included in **Appendices B, C, E** and **G**, with the Medicare template provided as **Attachment 1**). For more information on the requirements for insurer TME data submissions, see Section III.B.

C. Public Reporting of Primary Care Spending Target Performance

To publicly report on performance against the Target, OHS will report at the statewide level, with several "drill-down" analyses. For more information on the reporting parameters, see Section III.C.

Of note, CMS does not have the resources to report primary care spending using the OHS' definition, included in **Appendix A**. Therefore, OHS will separately calculate Medicare FFS primary care spending using data from the APCD. Due to the delay in availability of Medicare FFS data in the APCD, however, OHS will release two calculations – primary care spending without Medicare FFS spending, published with the Benchmark, and primary care spending with Medicare FFS spending once data are available.

D. Timeline for Measuring and Reporting the Primary Care Spending Target

OHS will publish primary care spending statistics, without Medicare FFS spending, on the same timeline as THCE statistics for the Benchmark. For more information on the timeline for measuring and reporting, see Section III.D.

OHS will publish primary care spending statistics, with Medicare FFS spending, once Medicare FFS data are available in the State's APCD. Medicare FFS data are not available until 18 months after the end of the measurement year (e.g., CY 2020 data will not be available until June 2022). Therefore, OHS will not be able to publish primary care spending statistics with Medicare FFS spending until the fall two years after the measurement period, at the earliest.

Appendix A

Insurance Carrier TME and Primary Care Spending Data Specification

THCE (per capita) =

$$\frac{\left(\begin{array}{c}\textit{Commercial TME} + \textit{Medicare Managed Care TME} + \textit{Medicare FFS TME} + \\ \textit{DSS Medicaid TME} + \textit{DOC TME} + \textit{VHA TME} + \textit{Insurer NCPHI}\end{array}\right)}{\textit{Connecticut Population}}$$

This insurance carrier TME, which is inclusive of primary care spending, data specification provides technical details to assist carriers in reporting and filing data to enable OHS to calculate TME and statewide primary care spending as a percentage of TME, less LTC. This appendix can serve as a stand-alone document to serve as a guide for TME and primary care spending data reporting.

Definitions of Key Terms

- **Allowed Amount:** The amount the payer paid a provider, plus any member cost sharing for a claim. Allowed amount is typically a dedicated data field in claims data. Allowed amount is the basis for measuring the claims component of Total Medical Expense.
- **Healthcare Cost Growth Benchmark ("Benchmark"):** The Healthcare Cost Growth Benchmark ("Benchmark") is the targeted annual per capita growth rate for Connecticut's total healthcare spending, expressed as the percentage growth from the prior year's per capita spending. The Benchmark is set on a calendar year basis.
- **Insurance Carriers (Carriers):** A private health insurance company that offers one or more of the following: commercial insurance, benefit administration for self-insured employers, and Medicare managed care organization (MCO).
- **Large Provider Entity:** A term referring to an organization with primary care providers that meets a pre-established size threshold for public reporting.
- **Market:** The highest levels of categorization of the health insurance market. For example, Medicare and Medicare MCO are collectively referred to as the "Medicare Market." Medicaid Fee-for-Service is referred to as the "Medicaid Market." Individual, self-insured, small and large group, and student health insurance markets are collectively referred to as the "Commercial Market."
- **Measurement Year:** The Measurement Year is the calendar year for which performance is measured against the prior calendar year for purposes of calculating the growth in healthcare costs.
- **Net Cost of Private Health Insurance (NCPHI):** Measures the costs to Connecticut residents associated with the administration of private health insurance (including

Medicare managed care). It is defined as the difference between health premiums earned and benefits incurred, and consists of insurers' costs of paying bills, advertising, sales commission and other administrative costs, premium taxes and profits (or contributions to reserves) or losses. NCPHI is reported as a component of THCE at the state, market and insurer levels.

- **Payer:** A term used to refer collectively to both insurance carriers and public programs that are submitting data to OHS.
- **Payer Recoveries:** Funds distributed by a payer and then later recouped (either through an adjustment from current or future payments, or a cash transfer) due to a review, audit or investigation of funds distribution by the payer. Payment recoveries is a separate, reportable field in total medical expense (TME) reporting.
- **Pharmacy Rebates:** Any rebates provided by pharmaceutical manufacturers to payers for prescription drugs, excluding manufacturer-provided fair market value bona fide service fees.[15] The computation of THCE at the state, market and payer level is net of pharmacy rebates (i.e., other expenditures are reduced by the amount of the pharmacy rebates).[16]
- **Primary Care Spending Target** ("Target"): This Target is Connecticut's annual primary care spending as a percentage of total medical expenditures. The Target should reach 10 percent by calendar year 2025, as directed in Executive Order No. 5. Interim targets are set on an annual calendar year basis.
- **Total Healthcare Expenditures (THCE):** The total medical expense incurred by Connecticut residents for all healthcare services for all payers reporting to OHS, plus the insurers' Net Cost of Private Health Insurance. Defining specifications of THCE are included in Section III.B.
- **Total Healthcare Expenditures Per Capita:** Total Healthcare Expenditures (as defined above) divided by Connecticut's total state population. The annual change in THCE per capita is compared to the Benchmark at the state, market and payer levels. THCE will not be reported at the large provider entity level.
- **Total Medical Expense (TME):** The sum of the Allowed Amount of total claims and total non-claims spending paid to providers incurred by Connecticut residents for all healthcare services. TME is reported at multiple levels: state, market, payer and provider level. TME is reported net of Pharmacy Rebates at the state, market and payer levels only. Payers report TME by line of business (e.g., individual, self-insured, large

[15] Fair market value bona fide service fees are fees paid by a manufacturer to a third party (e.g., insurer, pharmacy benefit manager, etc.) that represent fair market value for a bona fide, itemized service actually performed on behalf of the manufacturer that the manufacturer would otherwise perform (or contract for) in the absence of the service arrangement (e.g., data service fees, distribution service fees, patient care management programs, etc.).

[16] CMS is unable to report pharmaceutical rebates for traditional Medicare beneficiaries (i.e., FFS Medicare). Therefore, in the computations of THCE at the state and Medicare market levels, spending will be gross of Medicare FFS pharmaceutical rebates.

group, small group, Medicare, Medicaid, Medicare/Medicaid dually eligible) and at the large provider entity level whenever possible. More detailed TME reporting specifications are contained in the Appendices of this manual.

OHS will annually request TME data file(s) with dates of service during the prior calendar year and two years prior to the calendar year (e.g., OHS will request 2018 and 2019 data in 2021). Insurance carriers will submit one Excel file with multiple record types in each tab, including:

- Header Record Tab, which includes summary data and payer comments
- Large Provider Entity Record Tab, which includes TME by large provider entity and insurance category
- Pharmacy Rebate Record Tab, which includes pharmacy rebates by insurance category
- Market Enrollment Tab, which includes detailed member month information and request for total premiums earned on self-insured accounts (e.g., income from fees of uninsured plans)
- Variance Information tab, which includes variance by provider entity and insurance carrier

This insurance carrier TME and primary care spending data specification appendix is informed by Massachusetts', Delaware's and Rhode Island's TME data collection specification as well as the New England States Consortium Systems Organization's primary care spending data collection specifications, modified to meet the needs of Connecticut. In addition, the file format is similar to Massachusetts', Delaware's and Rhode Island's to aid insurers that operate in one or multiple of the other markets. OHS may periodically update and revise these data specifications in subsequent versions, but aims to update this manual no more frequently than once per calendar year.

TME and Primary Care Spending Excel File Submission Instructions and Schedule

TME file layouts for insurance carriers are included in this appendix. Further file submission instructions will be available on OHS' website. Carriers will submit TME, inclusive of primary care spending, data using Excel templates provided by OHS according to the schedule outlined in Table A-1. After collection of initial pre-benchmark data, carriers will submit TME data annually. Of note, OHS may request prior year data with each annual TME submission.

Table A-1. Insurers' TME Filing Schedule

Date	Files Due
June 18, 2021	CY 2018 and CY 2019 TME
October 4, 2021	CY 2020 TME
August 2, 2022	CY 2021 TME
August 1, 2023	CY 2022 TME
August 1, 2024	CY 2023 TME

Date	Files Due
August 1, 2025	CY 2024 TME
August 3, 2026	CY 2025 TME

After carriers submit their data according to the filing schedule, they must actively engage with OHS as it validates the data to ensure such data were submitted using the specifications outlined in this Implementation Manual. OHS will engage the carriers one-on-one to discuss the initial analysis of data, and once again to review final data before it is published.

TME and Primary Care Spending Data Submission

Insurance carriers must report TME, inclusive of primary care spending, data based on Allowed Amounts (i.e., the amount the insurer paid plus any member cost sharing).

Carriers must include only information pertaining to members:

- who are residents of Connecticut,
- who, at a minimum, have medical benefits[17], and
- for which the payer is primary on a claim (exclude any paid claims for which it was the secondary or tertiary payer), however do not exclude a member solely because they have additional coverage.

It is necessary for insurance carriers to attribute or assign individual patients to a primary care provider, and to organize those primary care providers into provider entities large enough for their performance to be statistically valid. Insurance carriers are asked to utilize their own primary care attribution methodology to attribute patients to a primary care provider. Carriers should attribute providers to large provider entities based on contracts in place during the reporting periods, and not along current contracts. Carriers must also report spending in aggregate for members not attributed to a large provider entity.

Carriers must report two categories of data, by Insurance Category Code:

1. TME data applicable to large provider entities with attributed members, for which the insurer is contracted, reported by large provider entity.
2. Member spending not attributable to a large provider entity, reported in aggregate.

Carriers must include all Allowed Amounts for all TME data for members, regardless of whether services are provided by providers located in or out of Connecticut, and regardless of the situs of the member's plan.[18]

[17] Members who only have a non-medical benefit should be excluded as insurance carriers who hold the medical benefit for those members will be making estimates of TME for those non-medical benefits.
[18] If the insurer pays claims for another organization's members (e.g., Blue Card members in the Blue Cross Blue Shield network) those members should not be included in TME.

The data reported for each large provider entity must include all TME for all attributed members for each month a member was attributed, so long as the member was a resident at the time of attribution, even when care was provided by providers outside of or not affiliated with the respective large provider entity. Insurance carriers may choose whether residency is established as of the first of the month, last of the month, or another day of the month, consistent with their monthly attribution methodology.

Claims Run-Out Period Specifications

Insurance carriers shall allow for a claims run-out period of at least 120 days after December 31 of the performance year. Carriers should apply reasonable and appropriate IBNR/IBNP completion factors to each respective TME service category and will be required to attest that they are reasonable and appropriate. Claims payments should be reported on an incurred basis, not paid basis.

Non-Claims Payment Reconciliation Period Specifications

Insurers shall allow for a non-claims reconciliation period of at least 180 days after December 31 of the performance year to reconcile non-claims payments, including incentives, capitation and risk-settlements, or other non-claims-based payments. Insurers should apply reasonable and appropriate estimations of non-claims liability to each large provider entity (including payments expected to be made to organizations not separately identified for TME reporting purposes) that are expected to be reconciled after the 180-day review period. Non-claims payments should be reported on an incurred basis, not paid basis.

Large Provider Entity IDs

The following large provider entities are to be reported on using the identification number for TME reporting listed in Table A-2 below. This list of large provider entities below is for the 2018-2019 reporting period and may be updated over time. Attribution of providers to the large provider entities listed in Table A-2 should be based on contracts in place during the performance period (i.e., calendar year for which data are being submitted), and not along contracts in place at the time of reporting. For spending not attributed to one of these large provider entities, either because the insurance carrier does not contract with the large provider entity or because the spending was outside of the named entities, please use Organizational ID 112.

OHS recognizes that carriers have different contractual relationships with the large provider entities identified by OHS. In some cases, carriers hold contracts with a large provider entity listed in Table A-2, encompassing one or more affiliated entities. In other cases, large provider entities identified by OHS may be an affiliated entity, not the contracting entity.

Each carrier should report when an identified ***large provider entity*** is the contracting entity for the performance period. If the entity that holds the contract with the carrier is not on the list of

large provider entities identified by OHS in Table A-2, then the carrier should report that spending using Organizational ID 112 which is reserved for members that cannot be attributed to any one of the large provider entities in Table A-2.

Table A-2. Large Provider Entity Organizational Identification Numbers for TME Reporting

Large Provider Entity	Large Provider Entity Organizational Identification Number
Community Medical Group	101
Connecticut Children's Medical Center	102
Connecticut State Medical Society IPA	103
Integrated Care Partners	104
Medical Professional Services	105
Northeast Medical Group	106
OptumCare Network of Connecticut	107
Prospect Connecticut Medical Foundation, Inc. (dba Prospect Medical, Prospect Health Services, Prospect Holdings)	108
Southern New England Health Care Organization (aka SOHO Health, Trinity Health of New England ACO, LLC)	109
Value Care Alliance	110
ProHealth	111
Members Not Attributed to a Large Provider Entity	112

TME File Specifications

Insurance carriers must submit one Excel template provided by OHS that includes its TME data, inclusive of primary care spending. The Excel template includes five separate tabs: Header Record, Large Provider Entity Record, Pharmacy Rebate Record, Market Enrollment, and Variance Information. The subsections below describe the detailed information that carriers must submit within each tab.

Header Record Tab

Insurance Carrier Org ID: The OHS-assigned organization ID for the carrier submitting the file, which is outlined in Table A-3 below.[19]

[19] This table may need to be updated from time to time as the insurer market in Connecticut changes.

Table A-3. Insurers' Organizational Identification Number for TME Reporting

Insurer	Organizational ID
Aetna Health & Life	201
Anthem	202
Cigna	203
ConnectiCare	204
Harvard Pilgrim Health Care	205
UnitedHealthcare	206

Period Beginning and Ending Dates: The period of time represented by the reported data. These period beginning and ending dates should always be January 1 and December 31, respectively, unless an insurance carrier newly enters or exits the market during other parts of the year. All reporting is based on the date of service related to the TME data.

Clinical Risk Adjustment Tool: The clinical risk adjustment tool, software or product used to calculate the clinical risk score required in the TME file. When possible, carriers should use a tool that corresponds to the insurance category reported (i.e., Medicare, commercial), ensure values reflect only those Connecticut residents attributed to the large provider entity within the Insurance Category Code, ensure scores are un-weighted to allow for comparison of providers within one plan across years, use concurrent modeling, and use a tool with all-encounter diagnosis-based (no cost inputs) and output total medical and pharmacy costs with no truncation.

Clinical Risk Adjustment Version: The version number of the clinical risk adjustment tool used to calculate the clinical risk adjustment score required in the TME file.

Clinical Risk Adjustment Methodology: Please describe the risk adjustment model used to adjust expenditures to account for patients' underlying clinical risk, including what demographic factors are used, whether the model is prospective or concurrent, and whether the model uses diagnosis-related health vs treatment data as well as the types of claims data used (e.g., inpatient, outpatient, pharmacy, or some combination of the three).

"Doing Business As:" Any Medicare managed care organization must submit all names for which it is "doing business as" in the state of Connecticut.

Large Provider Entity Record Tab

The large provider entity record file will be the source of the insurance carrier's expenditure data that will be used by OHS to compute THCE. Carriers will report their permissible claims and non-claims payments in this file.

Large Provider Entity Org ID: The OHS-assigned organizational ID of the large provider entity as outlined in Table A-2. For TME data for members who are unattributed to a large provider

entity, their data are to be reported in aggregate as "Members Not Attributed to a Large Provider Entity (Large Provider Entity Identification Number 112)."

Insurance Category Code: A number that indicates the insurance category that is being reported, as defined in Table A-4 below. All data reported by Insurance Category Code should be mutually exclusive. Commercial claims should be separated into two categories, as shown in Table A-4 below. Commercial self-insured or fully insured data for large providers for which the insurance carrier can collect information on all direct medical claims and any claims paid by a delegated entity should be reported in the "Full Claims" category. Commercial self-insured or fully insured data that does not include all medical and subcarrier claims should be reported in the "Partial Claims," category. An adjustment should be made to "Partial Claims" to allow for them to be comparable to full claims. Such an adjustment must be reviewed with OHS before the adjustment is made.[20] The goal of the adjustment is to *estimate* what total spending might be for those members without having to collect claims data from carve-out vendors, such as PBMs or behavioral health vendors. For example, for those members for whom pharmacy benefits are carved out, the insurance carrier might include its commercial market book of business average pharmacy spending PMPM for the same year, calculated on members who had pharmacy coverage, applied to all member months for which the carve out applied.

If an insurance carrier enrolls Medicare/Medicaid dual eligibles, OHS requires the carrier to report Medicare-related expenditures under Insurance Category Code 5 and Medicaid-related expenditures under Insurance Category Code 6. For example, if a carrier covers Medicare/Medicaid dual eligibles, but is only responsible for Medicaid services, expenditures for those dual eligibles are reported under Insurance Category Code 6. However, if a carrier is an integrated care entity providing both Medicare and Medicaid benefits to dual eligibles, the carrier should use both Insurance Category Codes 5 and 6, respectively, to report applicable expenditures. If direct assignment of the expenditure cannot be made to code 5 or 6, the carrier should use reasonable and appropriate methods to allocate expenditures to the respective Insurance Category Code. This will allow OHS to include the Medicare- or Medicaid-related expenditure for dual eligibles in the respective Market for reporting purposes.

Insurance carriers shall report for all insurance categories for which they have business. For carriers reporting in the "Other" category, carriers should describe in the Comments field (HD004) what is included in the "Other" category.

[20] Email Krista Moore at Krista.Moore@ct.gov with the insurance carrier's proposed approach for making an actuarial sound adjustment to its Partial Claims.

Table A-4. Insurance Category Code Definitions for TME Reporting

Insurance Category Code	Definition
1	Medicare Managed Care (excluding Medicare/Medicaid Dual Eligibles)[21]
2	Medicaid including CHIP (excluding Medicare/Medicaid Dual Eligibles)
3	Commercial — Full Claims
4	Commercial — Partial Claims
5	Medicare Expenditures for Medicare/Medicaid Dual Eligibles
6	Medicaid Expenditures for Medicare/Medicaid Dual Eligibles
7	Other

Member Months (annual): The number of unique members participating in a plan each month with at least a medical benefit, regardless of whether the member has any paid claims. Member months should be calculated by taking the number of members with a medical benefit and multiplying that sum by the number of months in the member's policy.

Clinical Risk Score: A value that measures a member's illness burden and predicted resource use based on differences in patient characteristics or other risk factors. Insurance carriers must disclose the clinical risk adjustment tool, version number and underlying methodology in the Header Record File.

Insurance carriers must submit a clinical risk score that represents all members attributed to a large provider entity, and all members who are unattributed by Insurance Category Code. Insurers are permitted to use a clinical risk adjustment tool and software of their own choosing, but must disclose the tool (e.g., ACG, DxCG, etc.), the version and underlying methodology in the Header Record File. TME data are not to be adjusted. For the purposes of reporting at the insurance carrier level, OHS will make the necessary adjustments to TME data based on the carrier-submitted clinical risk score. It will do so by weighting total claims expenses according to the value of the clinical risk score by large provider entity (and for aggregate unattributed lives) (i.e., the higher risk, the lower the expense) by line of business and will use the adjusted total claims expense value and the total non-claims expense value to calculate the percentage change in TME year-over-year.[22]

[21] Medicare Managed Care Organization should submit spending within special needs plan products, but not spending within stand-alone prescription drug plan products.
[22] To calculate adjusted TME, (1) divide total claims expense by the clinical risk adjustment score and (2) add total non-claims expense (not adjusted) to the quotient.

Where possible, carriers should apply the following parameters in completing the clinical risk adjustment:

- The clinical risk adjustment tool used should correspond to the insurance category reported (i.e., Medicare, commercial).
- The clinical risk score values should reflect only those Connecticut residents attributed by large provider entity code (including those residents unattributed to a named large provider entity) within the Insurance Category Code.
- The clinical risk scores should not be rebased annually and the value of 1 should be the same for the performance year and the year preceding the performance year to be able to compare difference in performance across one year within one carrier.
- Carriers should use concurrent modeling, rather than prospective.
- The clinical risk adjustment tool should be all-encounter diagnosis-based (no cost inputs) and output total medical and pharmacy costs with no truncation.

For reporting at the large provider-entity level, OHS will combine risk-adjusted data by provider across insurers to derive an adjusted total trend by line of business (e.g., commercial, Medicare and Medicaid). Research suggests that performance differences between risk adjustment tools are relatively minimal.[23]

Note: If an insurance carrier changes its clinical risk adjustment method and software (including version updates), it must re-report at least one prior year of TME data using the modified clinical risk adjustment method in order to ensure comparability between years.

Insurance carriers are to report TME data using the following claims and non-claims categories. To avoid double counting, all categories must be mutually exclusive. OHS may request additional information regarding how carriers mapped their data into these categories to improve consistency in reporting across all insurance carriers.

Claims: Hospital Inpatient: The TME paid to hospitals for inpatient services generated from claims. Includes all room and board and ancillary payments. Includes all hospital types. Includes payments for emergency room services when the member is admitted to the hospital, in accordance with the specific payer's payment rules. Does not include payments made for observation services. Does not include payments made for physician services provided during an inpatient stay that have been billed directly by a physician group practice or an individual physician. Does not include inpatient services at non-hospital facilities.

Claims: Hospital Outpatient: The TME paid to hospitals for outpatient services generated from claims. Includes all hospital types and includes payments made for hospital-licensed satellite clinics. Includes emergency room services not resulting in admittance. Includes observation

[23] Conversation with Arlene Ash, PhD, Professor and Division Chief for Biostatistics and Health Services Research in the Department of Quantitative Health Services at the University of Massachusetts Medical School, May 2020.

services. Does not include payments made for physician services provided on an outpatient basis that have been billed directly by a physician group practice or an individual physician.

Claims: Professional, Primary Care: The TME paid to primary care providers generated from claims using the following code-level definition:

Primary Care
Taxonomy and Proc

Insurance carriers should identify primary care providers first by searching for relevant provider taxonomy codes in the rendering provider field and then the billing provider field. If the carrier does not utilize the provider taxonomy codes in the file above, it may apply its provider codes to match the description of the provider taxonomy codes included.

Claims: Professional, Primary Care (for Monitoring Purposes): The TME paid to primary care providers, including OB/GYNs and midwifery, generated from claims using the following code-level definition:

Primary Care
Taxonomy and Proc

Insurance carriers should identify primary care providers first by searching for relevant provider taxonomy codes in the rendering provider field and then the billing provider field. If the carrier does not utilize the provider taxonomy codes in the file above, it may apply its provider codes to match the description of the provider taxonomy codes included.

Claims: Professional, Specialty: The TME paid to physicians or physician group practices generated from claims. Includes services provided by a doctors of medicine or osteopathy in clinical areas other than family medicine, internal medicine, general medicine or pediatric medicine, not defined as primary care in the first primary care definition above.

Claims: Professional Other: The TME paid from claims to healthcare providers for services provided by a licensed practitioner other than a physician but is not identified as primary care in the first primary care definition above. This includes, but is not limited to, licensed podiatrists, non-primary care nurse practitioners, non-primary care physician assistants, physical therapists, occupational therapists, speech therapists, psychologists, licensed clinical social workers, counselors, dieticians, dentists, chiropractors and any professional fees that do not fit other categories.

Claims: Pharmacy: The TME paid from claims to healthcare providers for prescription drugs, biological products or vaccines as defined by the insurance carrier's prescription drug benefit. This category should not include claims paid for pharmaceuticals under the carrier's medical

benefit. Pharmacy spending provided under the medical benefit should be attributed to the location in which it was delivered (e.g., pharmaceuticals delivered in a hospital inpatient setting should be attributed to Claims: Hospital Inpatient). Medicare managed care, i.e., Medicare Advantage, insurers that offer stand-alone prescription drug plans (PDPs) should exclude stand-alone PDP data from their TME. Pharmacy data is to be reported gross of applicable rebates.

Claims: Long-Term Care: All TME data from claims to providers for: (1) nursing homes and skilled nursing facilities; (2) intermediate care facilities for individuals with intellectual disability (ICF/ID) and assisted living facilities; and (3) providers of home- and community-based services, including personal care (e.g., assistance with dressing, bathing, eating, etc.), homemaker and chore services, home-delivered meal programs, home health services, adult daycare, self-directed personal assistance services (e.g., assistance with grocery shopping, etc.), and programs designed to assist individuals with long-term care needs who receive care in their home and community, such as PACE and Money Follows the Person. Does not include payments made for professional services rendered during a facility stay that have been billed directly by a physician group practice or an individual practitioner.

Claims: Other: All TME paid from claims to healthcare providers for medical services not otherwise included in other categories. Includes, but is not limited to durable medical equipment, facility fees of community health center services, freestanding ambulatory surgical center services, freestanding diagnostic facility services, hospice, hearing aid services and optical services. Payments made to members for direct reimbursement of healthcare benefits/services may be reported in "Claims: Other" if the insurance carrier is unable to classify the service. If this is the case, the carrier should consult with OHS about the appropriate placement of the service prior to categorizing it as "Claims: Other." However, TME data for non-healthcare benefits/services, such as fitness club reimbursements, are not to be reported in any category. Payments for fitness club membership discounts whether given to the provider or given in the form of a capitated payment to an organization that assists the insurance carrier with enrolling members in gyms is not a valid payment to include.

Non-Claims: Prospective Capitated, Prospective Global Budget, Prospective Case Rate, or Prospective Episode-Based Payments: All non-claims based payments for services delivered under the following payment arrangements: (1) capitation payments, i.e., single payments to providers to provide healthcare services over a defined period of time; (2) global budget payments, i.e., prospective payments made to providers for a comprehensive set of services for a broadly defined population or a defined set of services where certain benefits (e.g., behavioral health, pharmacy) are carved out; (3) case rate payments, i.e., prospective payments made to providers in a given provider organization for a patient receiving a defined set of services for a specific period of time and (4) prospective episode-based payments, i.e., payments received by providers (which can span multiple provider organizations) for a patient receiving a defined set

of services for a specific condition across a continuum of care, or care for a specific condition over a specific time period.

Non-Claims: Performance Incentive Payments: All payments to reward providers for achieving quality or cost-savings goals, or payments received by providers that may be reduced if costs exceed a defined pre-determined, risk-adjusted target. Includes pay-for-performance, i.e., payments to reward providers for achieving a set target, and pay-for-reporting, i.e., payments to providers for reporting on a set of metrics, usually to build capacity for pay-for-performance, payments. Includes shared savings distributions, i.e., payments received by providers if costs of services are below a set target, and shared risk recoupments, i.e., payments providers must recoup if costs of services are above a set target.

Non-Claims: Payments to Support Population Health and Practice Infrastructure: All payments made to develop provider capacity and practice infrastructure to help coordinate care, improve quality and control costs. Includes, but is not limited to payments that support care management, care coordination and population; data analytics; EHR/HIT infrastructure payments; medication reconciliation; patient-centered medical home (PCMH) recognition payments and primary care and behavioral health integration *that are not reimbursable through claims*.

Non-Claims: Provider Salaries: All payments for salaries of providers who provide healthcare services not otherwise included in other claims and non-claims categories. This category is typically only applicable to closed delivery systems.

Non-Claims: Recovery: All payments received from a provider, member/beneficiary or other payer, which were distributed by a payer and then later recouped due to a review, audit or investigation. This field should be reported as a **negative number**. Only report data in this category not otherwise included elsewhere (e.g., if Inpatient Hospital is reported net of Recovery, do not separately report the same Recovery amount in this category).

Non-Claims: Other: All other payments made pursuant to the insurer's contract with a provider not made on the basis of a claim for healthcare benefits/services and cannot be properly classified elsewhere. This may include governmental payer shortfall payments, grants or other surplus payments. For CY 2020, this may also include supportive funds made to providers to support clinical and business operations during the global COVID 19 pandemic. Only payments made to providers are to be reported; insurer administrative expenditures (including corporate allocations) are not included in TME.

Non-Claims: Total Primary Care Non-Claims-Based Payments: All non-claims-based payments included in the above six categories that are specifically made to a primary care provider or provider organization. Payments in this category should be a sub-set of payments reported in the other non-claims categories. *This category is the only category not mutually exclusive to the other non-claims categories.*

Pharmacy Rebate Record Tab

The pharmacy rebate file will be the source of the insurance carrier's pharmacy rebate and will be used by OHS to compute THCE and TME. Carriers will report their rebate data in this file.

Insurance Category Code: A number that indicates the insurance category that pharmacy rebates are being reported on. Use the applicable Insurance Category Code as defined previously in the Large Provider Entity Record File (not all Insurance Category Codes may be applicable to pharmacy rebates).

Pharmacy Rebates: The estimated value of rebates attributed to Connecticut resident members provided by pharmaceutical manufacturers for prescription drugs with specified dates of fill, corresponding to the period beginning date through end date from the Large Provider Entity Record File, excluding manufacturer-provided fair market value bona fide service fees.[24] This amount shall include pharmacy benefit manager (PBM) rebate guarantee amounts and any additional rebate amounts transferred by the PBM. Total rebates should be reported without regard to how they are paid to the insurance carrier (e.g., through regular aggregate payments, on a claims-by-claim basis, etc.). Payers should apply IBNR factors to preliminary prescription drug rebate data to estimate total anticipated rebates related to fill dates in the calendar year for which reporting will be done. If carriers are unable to report rebates specifically for Connecticut residents, carriers should report estimated rebates attributed to Connecticut resident members in a proportion equal to the proportion of pharmacy spending for Connecticut resident members compared to pharmacy spending for total members, by line of business. For example, if Connecticut resident commercial member spending represent 10% of an insurer's total commercial members, then 10% of the total pharmacy rebates for its commercial book of business should be reported. If the insurance carrier is unable to identify the percentage of pharmacy spending for Connecticut resident members, then the carrier should calculate the pharmacy rebates attributable to Connecticut resident members using percentage of membership. This value should always be reported as a **negative number**.

Market Enrollment Tab

The market enrollment file will be the source of the insurance carrier's member months by market OHS will use OHS to compute NCPHI. Carriers will report their member months by market in this file. Carriers will also report spending to calculate NCPHI for self-insured plans in this file.

[24] Fair market value bona fide service fees are fees paid by a manufacturer to a third party (e.g., insurance carriers, PBMs, etc.) that represent fair market value for a bona fide, itemized service actually performed on behalf of the manufacturer that the manufacturer would otherwise perform (or contract for) in the absence of the service arrangement (e.g., data service fees, distribution service fees, patient care management programs, etc.).

Market Enrollment Category Code: The number of members participating in a plan categorized by the insurance carrier as individual, large group – fully insured, small group – fully insured, self-insured, student market, Medicare managed care and Medicare/Medicaid duals. Carriers should not include Medigap members, but should include D-SNP members. Insurance carriers should report member months (see definition below) by market enrollment category listed in Table A-5 below.

Table A-5. Insurers' Market Enrollment Category Code Definitions

Market Enrollment Category Code	Definition
901	Individual
902	Large group, fully insured
903	Small group, fully insured
904	Self-insured
905	Student market
906	Medicare managed care
908	Medicare/Medicaid duals

Member Months (annual): The number of unique members participating in a plan each month with at least a medical benefit, regardless of whether the member has any paid claims. Member months should be calculated by taking the number of members with a medical benefit and multiplying that sum by the number of months in the member's policy.

Income from Fees of Uninsured Plans: OHS requests insurance carriers to report aggregate information on the premiums earned from their self-insured accounts (e.g., "fees from uninsured plans"). Carriers should follow the instructions for Part 1, Line 12 on the NAIC SCHE for their Connecticut-situs self-insured accounts. Carriers must report this for self-insured plans since this is not typically reported in the SHCE filed with the Connecticut Insurance Department.

Variance Information Tab

The variance information file will be the source of each provider entity and insurance carrier's variance information for the purposes of conducting statistical testing and developing confidence intervals around cost growth rates. Carriers will report variance information for:

- each line of business; and
- each provider entity by line of business (see below for definition of line of business).

Large Provider Entity/Insurance Carrier Org ID: The OHS-assigned organizational ID of the large provider entity/insurance carrier submitting the file, as outlined in Table A-2. For TME data for members who are unattributed to a large provider entity, their data are to be reported

in aggregate as "Members Not Attributed to a Large Provider Entity (Large Provider Entity Identification Number 112)."

Line of Business: Refers to the Medicare and Commercial markets, and combines Insurance Category Codes. Insurance Category Codes should be mapped to line of business as follows:

- **Medicare:** includes Medicare Managed Care and Medicare Expenditures for Medicare/Medicaid Dual Eligibles (i.e., ICC 1 and ICC 5)
- **Commercial:** includes Commercial – Full Claims and Commercial – Partial Claims (for the Commercial partial population, variance should be calculated based on adjusted data for the partial population) (i.e., ICC 3 and ICC 4)

Variance of Claims Expenditures: For each individual who at any point in the calendar year was attributed to the provider, the average of the squared differences of each attributed member's total claims spending from the mean claims spending for each provider entity by line of business (as defined above). Include the member for every month they were attributed, regardless of whether the member has any paid claims. Only provide variance information for claims spending. Do not include non-claims spending (e.g., performance incentive payments) when calculating variance. When calculating variance, use the formula for calculating population variance:

$$s^2 = \frac{\sum(x_i - \bar{x})^2}{n}$$

Where:

s^2 = sample variance
x_i = value of the one observation
$\bar{x}$ = the mean value of all observations
n = the number of observations

File Submission

File Submission Naming Conventions

Data submissions should follow the following naming conventions:

Insurance Carrier Name_TME_YYYY_Version.xls

YYYY is the four-digit year of submission (which will generally be one year later than the year of the data reflected in the report).

Version is optional and indicates the submission number.

The file extension must be .xls or .xlsx

Below are examples of valid file names:

CARRIER A_TME_2018_01.xlsx or CARRIER A_TME_2018_1.xlsx or CARRIER A_TME_2018.xlsx

Submitting Files to OHS

Electronic files are to be submitted through the State's secure file transfer (SFT) server at https://sft.ct.gov/ to OHS.

OHS will provide a form at https://portal.ct.gov/OHS/Pages/Guidance-for-Payer-and-Provider-Groups/Implementation-Manual for the carrier's contact(s) to fill out and email to OHS. This information is required:

- To facilitate user access to the State's SFT Web Client;
- To confirm the user is the authorized and designated contact for the carrier at registration;
- To facilitate securing and protecting confidential data;
- To enable OHS communicate with the contact about data error correction and validation, system or process changes and updates.

The contact will fill out the form and email it to OHS@ct.gov. OHS will acknowledge receipt of the filled form, credential and grant the contact/new user access to the State's network within two business days. Upon receiving the credentials to access the server, the authorized user will upload the required data files. The contact must alert OHS through email after uploading the file(s).

Appendix B

CT DSS Medicaid TME and Primary Care Spending Data Specification

THCE (per capita) =

$$\frac{\left(\begin{array}{c}\textit{Commercial TME} + \textit{Medicare Managed Care TME} + \textit{Medicare FFS TME} + \\ \textit{DSS Medicaid TME} + \textit{DOC TME} + \textit{VHA TME} + \textit{Insurer NCPHI}\end{array}\right)}{\textit{Connecticut Population}}$$

To be developed April/May 2021

Appendix C

CT DOC TME Data Specification

THCE (per capita) =

$$\frac{\left(\begin{array}{c}\textit{Commercial TME} + \textit{Medicare Managed Care TME} + \textit{Medicare FFS TME} + \\ \textit{DSS Medicaid TME} + \textit{DOC TME} + \textit{VHA TME} + \textit{Insurer NCPHI}\end{array}\right)}{\textit{Connecticut Population}}$$

The Connecticut Department of Correction (DOC) annually reports general fund expenditures for inmate medical services to the Connecticut legislature. The reported expenditures include all personal services for all inmate medical services staff and other expenditures. The reported expenditures represent general fund appropriations expenditures.

Personal services include wages and salaries for all inmate medical services staff, including medical, dental and behavioral staff. It does not include the cost of fringe benefits or grant-funded positions. It does not include addiction services staff or the cost of DOC business office staff that support inmate medical services operations (e.g., accounts payable, finance and budget, asset management, contracting, procurement).

Other expenditures include spending for medical supplies, office supplies, laboratory costs, pharmaceutical and pharmacy services costs, minor medical equipment, minor office equipment, miscellaneous administrative costs, licensing costs, leasing costs, temporary medical staffing costs, emergency transportation costs, miscellaneous IT costs, outpatient costs and specialty services costs. It does not include capital equipment procurements and grant-funded expenditures.

It is important to note that DOC expenditures are reported on a state fiscal year basis (July-June) and not on a CY basis. Therefore, OHS will utilize the fiscal year that most recently contains six months of the reporting CY (e.g., state fiscal year 2021 data should be used in lieu of CY 2020 data). This is not consistent with the reporting from other payers and should be footnoted as such but is not expected to make a large impact.

DOC TME is only reported at the state level. Therefore, when reporting data at the service category level, DOC data will have to be excluded.

To receive TME data from DOC, OHS needs to make a formal request by emailing Michael Regan, Chief of Fiscal/Administrative Services (Michael.Regan@ct.gov).

Appendix D

CT OSC TME Data Specification

This Office of the State Comptroller (OSC) TME data specification provides technical details to assist OSC in reporting and filing data to enable OHS to calculate TME on state employees, their dependents and retirees. This appendix can serve as a stand-alone document to serve as a guide for OSC TME data reporting. (For definitions of key terms, please see the full Implementation Manual). It is important to note that spending data for state employees, their dependents and retirees will be reported both by OSC, as defined by the specifications outlined in this appendix, as well as by OSC's third-party administrators (TPA). This allows OHS to: (1) understand the TME for OSC independent of other business reported by its TPA(s); and (2) hold OSC's TPAs accountable for their total Connecticut population. **Therefore, to avoid double counting state employee healthcare spending, OHS should only use data reported by OSC to assess OSC's performance against the Cost Growth Benchmark and use data reported by OSC's TPAs to calculate THCE at the commercial and Medicare levels.**

OHS will annually request TME data file(s) for dates of service covering prior calendar years beginning with CY 2018 and CY 2019 data. OSC will submit one Excel file with multiple record types in each tab, including:

- Header Record File, which includes, summary data and OSC comments
- TME Record File, which includes TME
- Market Enrollment File, which includes detailed member month information
- Variance Information File, which includes variance by insurance carrier

OHS may periodically update and revise these data specifications in subsequent versions, but aims to update this manual no more frequently than once per calendar year.

TME File Submission Specifications and Schedule

This appendix includes TME data file layouts for OSC. Further file submission instructions will be available on OHS' website. OSC will submit TME data using Excel templates provided by OHS according to the schedule outlined in Table D-1. After collection of initial pre-benchmark data, OSC will submit TME data annually. Of note, OHS may request prior year data with each annual TME submission.

Table D-1. OHS' TME Filing Schedule

Date	Files Due
May 28, 2021	CY 2018 and CY 2019 TME
October 4, 2021	CY 2020 TME
August 2, 2022	CY 2021 TME

Date	Files Due
August 1, 2023	CY 2022 TME
August 1, 2024	CY 2023 TME
August 1, 2025	CY 2024 TME
August 3, 2026	CY 2025 TME

TME Data Submission

OSC must report TME based on Allowed Amounts (i.e., the amount OSC paid plus any member cost-sharing).

OSC must include only information pertaining to members:

- who are residents of Connecticut,
- who, at a minimum, have medical benefits[25], and
- for which OSC is primary on a claim (i.e., exclude any paid claims for which it was the secondary or tertiary payer, but do not exclude a member solely because they have additional coverage).

Spending should be calculated on a member month basis and OSC may choose whether residency of a member is established as of the first of the month, the last of the month, or another day of the month.

Claims Run-Out Period Specifications

OSC shall allow for a claims run-out period of at least 120 days after December 31 of the performance year. OSC should apply reasonable and appropriate IBNR/IBNP completion factors to each respective TME service category and will be required to attest that they are reasonable and appropriate. Claims payments should be reported on an incurred basis, not paid basis.

Non-Claims Payment Reconciliation Period Specifications

OSC shall allow for a non-claims reconciliation period of at least 180 days after December 31 of the performance year to reconcile non-claims payments, including incentives, capitation and risk-settlements, or other non-claims-based payments. This includes non-claims payments on OSC's behalf by a TPA or another vendor. OSC should apply reasonable and appropriate estimations of non-claims liability that are expected to be reconciled after the 180-day review period. Non-claims payments should be reported on an incurred basis, not paid basis.

[25] Members who only have a non-medical benefit should be excluded as insurance carriers who hold the medical benefit for those members will be making estimates of TME for those non-medical benefits.

TME File Specifications

Insurance carriers must submit one Excel template provided by OHS that includes its TME data, inclusive of primary care spending. The Excel template includes five separate tabs: Header Record, Large Provider Entity Record, Pharmacy Rebate Record, Market Enrollment, and Variance Information. The subsections below describe the detailed information that insurers must submit within each tab.

Header Record Tab

OSC Org ID: The OHS-assigned organization ID for the payer submitting the file, as defined in Table D-2.

Table D-2. OHS' Organizational Identification Number

Payer	Organizational ID
OSC	207

Period Beginning and Ending Dates: The period of time represented by the reported data. These period beginning and ending dates should always be January 1 and December 31, respectively. All reporting is based on the date of service related to the TME data.

Clinical Risk Adjustment Tool: The clinical risk adjustment tool, software or product used to calculate the clinical risk score required in the TME file.

Clinical Risk Adjustment Version: The version number of the clinical risk adjustment tool used to calculate the clinical risk adjustment score required in the TME file.

Clinical Risk Adjustment Methodology: The risk adjustment model underlying methodology used to adjust expenditures to account for patients' underlying clinical risk, including what demographic factors are used, whether the model prospective or concurrent, and whether the model uses diagnosis-related health vs treatment data, as well as the types of claims data used (e.g., inpatient, outpatient, pharmacy, or some combination of the three). When possible, OSC should use a tool that corresponds to the insurance category reported (i.e., Medicare, commercial), ensure values reflect only those Connecticut residents attributed to the large provider entity within the Insurance Category Code, ensure scores are un-weighted to allow for comparison of providers within one plan across years, use concurrent modeling, and use a tool with all-encounter diagnosis-based (no cost inputs) and output total medical and pharmacy costs with no truncation.

TME Record Tab

The TME Record File will be the source of OSC's TME data that OHS will use to assess OSC's performance against the Benchmark. OSC will report its permissible claims and non-claims payments in this file.

OSC Org ID: For this submission, OSC will input "207" as the value for this field.

Insurance Category Code: A number that indicates the insurance category that is being reported. All data reported by Insurance Category Code should be mutually exclusive. For this submission, OSC should input its data under two insurance categories as outlined in Table D-3 below.

Table D-3. OHS' Insurance Category Code Definitions

Insurance Category Code	Definition
1	Medicare Managed Care (excluding Medicare/Medicaid Dual Eligibles)
3	Commercial — Full Claims

Member Months (annual): The number of unique members participating in an OSC plan each month with at least a medical benefit, regardless of whether the member has any paid claims. Member months should be calculated by taking the number of members with a medical benefit and multiplying that sum by the number of months in the member's policy.

Clinical Risk Score: A value that measures a member's illness burden and predicted resource use based on differences in patient characteristics or other risk factors. OSC must disclose the clinical risk adjustment tool, version number and underlying methodology in the Header Record File.

OSC must submit a clinical risk score that represents all of its members by line of business. OSC can use a clinical risk adjustment tool and software of its own choosing, but must disclose the tool (e.g., ACG, DxCG, etc.), the version and underlying methodology in the Header Record File. TME data are not to be adjusted. For the purposes of reporting, OHS will make the necessary adjustments to TME data based on the OSC-submitted clinical risk score. It will do so by weighting total claims expenses according to the value of the clinical risk score by OSC (i.e., the higher risk, the lower the expense) and will use the adjusted total claims expense value and the total non-claims expense value to calculate the percentage change in TME year-over-year.[26]

Where possible, OSC should apply the following parameters in completing the clinical risk adjustment:

- The clinical risk adjustment tool used should correspond to the insurance category reported (i.e., Medicare, commercial).
- The clinical risk score values should reflect only those Connecticut residents attributed by large provider entity code (including those residents unattributed to a named large provider entity) within the Insurance Category Code.

[26] To calculate adjusted TME, (1) divide total claims expense by the clinical risk adjustment score and (2) add total non-claims expense (not adjusted) to the quotient.

- The clinical risk scores should not be rebased annually and the value of 1 should be the same for the performance year and the year preceding the performance year to be able to compare difference in performance across one year within one carrier.
- Carriers should use concurrent modeling, rather than prospective.
- The clinical risk adjustment tool should be all-encounter diagnosis-based (no cost inputs) and output total medical and pharmacy costs with no truncation.

Note: If OSC changes its clinical risk adjustment method and software (including version updates), it must re-report at least one prior year of TME data using the modified clinical risk adjustment method to ensure comparability between years.

OSC should report TME data using the following claims and non-claims categories. To avoid double counting, all categories must be mutually exclusive. OHS may request additional information on how OSC mapped its data into these categories to improve consistency in reporting across all payers.

Claims: Hospital Inpatient: The TME paid to hospitals for inpatient services generated from claims. Includes all room and board and ancillary payments. Includes all hospital types. Includes payments for emergency room services when the member is admitted to the hospital, in accordance with the specific payer's payment rules. Does not include payments made for observation services. Does not include payments made for physician services provided during an inpatient stay that have been billed directly by a physician group practice or an individual physician. Does not include inpatient services at non-hospital facilities.

Claims: Hospital Outpatient: The TME paid to hospitals for outpatient services generated from claims. Includes all hospital types and includes payments made for hospital-licensed satellite clinics. Includes emergency room services not resulting in admittance. Includes observation services. Does not include payments made for physician services provided on an outpatient basis that have been billed directly by a physician group practice or an individual physician.

Claims: Professional, Primary Care: The TME paid to primary care providers generated from claims using the following code-level definition:

Primary Care
Taxonomy and Proce

OSC should identify primary care providers first by searching for relevant provider taxonomy codes in the rendering provider field and then the billing provider field. If the carrier does not utilize the provider taxonomy codes in the file above, it may apply its provider codes to match the description of the provider taxonomy codes included.

Claims: Professional, Primary Care (for Monitoring Purposes): The TME paid to primary care providers, including OB/GYNs and midwifery, generated from claims using the following code-level definition:

OSC should identify primary care providers first by searching for relevant provider taxonomy codes in the rendering provider field and then the billing provider field. If the carrier does not utilize the provider taxonomy codes in the file above, it may apply its provider codes to match the description of the provider taxonomy codes included.

Claims: Professional, Specialty: The TME paid to physicians or physician group practices generated from claims. Includes services provided by a doctors of medicine or osteopathy in clinical areas other than family medicine, internal medicine, general medicine or pediatric medicine, not defined as primary care in the first primary care definition above.

Claims: Professional Other: The TME paid from claims to healthcare providers for services provided by a licensed practitioner other than a physician but is not identified as primary care in the first primary care definition above. This includes, but is not limited to, licensed podiatrists, non-primary care nurse practitioners, non-primary care physician assistants, physical therapists, occupational therapists, speech therapists, psychologists, licensed clinical social workers, counselors, dieticians, dentists, chiropractors and any professional fees that do not fit other categories.

Claims: Pharmacy: The TME paid from claims to healthcare providers for prescription drugs, biological products or vaccines as defined by OSC's prescription drug benefit. This category should not include claims paid for pharmaceuticals under the carrier's medical benefit. Pharmacy spending provided under the medical benefit should be attributed to the location in which it was delivered (e.g., pharmaceuticals delivered in a hospital inpatient setting should be attributed to Claims: Hospital Inpatient). Medicare managed care, i.e., Medicare Advantage, insurers that offer stand-alone prescription drug plans (PDPs) should exclude stand-alone PDP data from their TME. For OSC only, pharmacy data is to be reported **net** of applicable rebates.

Claims: Long-Term Care: All TME data from claims to providers for: (1) nursing homes and skilled nursing facilities; (2) intermediate care facilities for individuals with intellectual disability (ICF/ID) and assisted living facilities; and (3) providers of home- and community-based services, including personal care (e.g., assistance with dressing, bathing, eating, etc.), homemaker and chore services, home-delivered meal programs, home health services, adult daycare, self-directed personal assistance services (e.g., assistance with grocery shopping, etc.), and programs designed to assist individuals with long-term care needs receive care in their home and community, such as PACE and Money Follows the Person. Does not include

payments made for professional services rendered during a facility stay that have been billed directly by a physician group practice or an individual practitioner.

Claims: Other: All TME paid from claims to healthcare providers for medical services not otherwise included in other categories. Includes, but is not limited to durable medical equipment, facility fees of community health center services, freestanding ambulatory surgical center services, freestanding diagnostic facility services, hospice, hearing aid services and optical services. Payments made to members for direct reimbursement of healthcare benefits/services may be reported in "Claims: Other" if OSC is unable to classify the service. If this is the case, the carrier should consult with OHS about the appropriate placement of the service prior to categorizing it as "Claims: Other." However, TME data for non-healthcare benefits/services, such as fitness club reimbursements, are not to be reported in any category. Payments for fitness club membership discounts whether given to the provider or given in the form of a capitated payment to an organization that assists OSC with enrolling members in gyms is not a valid payment to include.

Non-Claims: Prospective Capitated, Prospective Global Budget, Prospective Case Rate, or Prospective Episode-Based Payments: All non-claims based payments for services delivered under the following payment arrangements: (1) capitation payments, i.e., single payments to providers to provide healthcare services over a defined period of time; (2) global budget payments, i.e., prospective payments made to providers for a comprehensive set of services for a broadly defined population or a defined set of services where certain benefits (e.g., behavioral health, pharmacy) are carved out; (3) case rate payments, i.e., prospective payments made to providers in a given provider organization for a patient receiving a defined set of services for a specific period of time and (4) prospective episode-based payments, such as OSC's Episodes of Care program with Signify Health, i.e., payments received by providers (which can span multiple provider organizations) for a patient receiving a defined set of services for a specific condition across a continuum of care, or care for a specific condition over a specific time period.

Non-Claims: Performance Incentive Payments: All payments to reward providers for achieving quality or cost-savings goals, or payments received by providers that may be reduced if costs exceed a defined pre-determined, risk-adjusted target. Includes pay-for-performance, i.e., payments to reward providers for achieving a set target, and pay-for-reporting, i.e., payments to providers for reporting on a set of metrics, usually to build capacity for pay-for-performance, payments. Includes shared savings distributions, i.e., payments received by providers if costs of services are below a set target, and shared risk recoupments, i.e., payments providers must recoup if costs of services are above a set target. This also includes reconciliation payments for OSC's Episodes of Care program with Signify Health so long as the episodes are retrospectively reconciled.

Non-Claims: Payments to Support Population Health and Practice Infrastructure: All payments made to develop provider capacity and practice infrastructure to help coordinate

care, improve quality and control costs. Includes, but is not limited to payments that support care management, care coordination and population; data analytics; EHR/HIT infrastructure payments; medication reconciliation; patient-centered medical home (PCMH) recognition payments and primary care and behavioral health integration *that are not reimbursable through claims*.

Non-Claims: Provider Salaries: All payments for salaries of providers who provide healthcare services not otherwise included in other claims and non-claims categories. This category is typically only applicable to closed delivery systems.

Non-Claims: Recovery: All payments received from a provider, member/beneficiary or other payer, which were distributed by a payer and then later recouped due to a review, audit or investigation. This field should be reported as a **negative number**. Only report data in this category not otherwise included elsewhere (e.g., if Inpatient Hospital is reported net of Recovery, do not separately report the same Recovery amount in this category).

Non-Claims: Other: All other payments made pursuant to the insurer's contract with a provider not made on the basis of a claim for healthcare benefits/services and cannot be properly classified elsewhere. This may include governmental payer shortfall payments, grants or other surplus payments. For CY 2020, this may also include supportive funds made to providers to support clinical and business operations during the global COVID 19 pandemic. Only payments made to providers are to be reported; insurer administrative expenditures (including corporate allocations) are not included in TME.

Non-Claims: Total Primary Care Non-Claims-Based Payments: All non-claims-based payments included in the above six categories that are specifically made to a primary care provider or provider organization. Payments in this category should be a sub-set of payments reported in the other non-claims categories. *This category is the only category not mutually exclusive to the other non-claims categories.*

Market Enrollment Tab

The market enrollment file will be the source of OSC's spending and member months by market in that OHS will used to compute OSC's net cost of operating its program. OSC will report its spending and member months by market in this file.

Market Enrollment Category Code: The number of members participating in an OSC plan categorized by OSC by market enrollment category. For this submission, OSC should input its data under the two market enrollment categories as outlined in Table D-4 below.

Table D-4. OHS' Market Enrollment Category Code Definitions

Market Enrollment Category Code	Definition
904	Self-insured
906	Medicare managed care

Member Months (annual): The number of unique members participating in an OSC plan each month with at least a medical benefit, regardless of whether the member has any paid claims. Member months should be calculated by taking the number of members with a medical benefit and multiplying that sum by the number of months in the member's policy.

Variance Information Tab

The variance information file will be the source of OSC's variance information for the purposes of conducting statistical testing and developing confidence intervals around cost growth rates. OSC will report variance information for each line of business as defined below.

Insurance category codes should be mapped to line of business as follows:

- **Medicare:** includes Medicare Managed Care and Medicare Expenditures for Medicare/Medicaid Dual Eligibles (i.e., ICC 1 and ICC 5)
- **Commercial:** includes Commercial – Full Claims and Commercial – Partial Claims (for the Commercial partial population, variance should be calculated based on adjusted data for the partial population) (i.e., ICC 3 and ICC 4)

OSC Org ID: For this submission, OSC will input "207" as the value for this field.

Line of Business: Refers to the Medicare and Commercial markets, and combines Insurance Category Codes. Insurance Category Codes should be mapped to line of business as follows:

- **Medicare:** includes Medicare Managed Care and Medicare Expenditures for Medicare/Medicaid Dual Eligibles (i.e., ICC 1 and ICC 5)
- **Commercial:** includes Commercial – Full Claims and Commercial – Partial Claims (for the Commercial partial population, variance should be calculated based on adjusted data for the partial population) (i.e., ICC 3 and ICC 4)

Variance of Claims Expenditures: For each individual who at any point in the calendar year was a member, the average of the squared differences of each member's total claims spending from the mean claims spending by line of business (as defined above). Include the member for every month they were attributed, regardless of whether the member has any paid claims. Only provide variance information for claims spending. Do not include non-claims spending (e.g., performance incentive payments) when calculating variance. When calculating variance, use the formula for calculating population variance:

$$s^2 = \frac{\sum(x_i - \bar{x})^2}{n}$$

Where:

s^2 = sample variance
x_i = value of the one observation
$\bar{x}$ = the mean value of all observations
n = the number of observations

File Submission

File Submission Naming Conventions

Data submissions should follow the following naming conventions:

OSC_TME_YYYY_Version.xls

YYYY is the four-digit year of submission (which will generally be one year later than the year of the data reflected in the report).

Version is optional and indicates the submission number.

The file extension must be .xls or .xlsx

Below are examples of valid file names:

OSC_TME_2018_01.xlsx or OSC_TME_2018_1.xlsx or OSC_TME_2018.xlsx

Submitting Files to OHS

Electronic files are to be submitted through the State's secure file transfer (SFT) server at https://sft.ct.gov/ to OHS.

OHS will provide a form at https://portal.ct.gov/OHS/Pages/Guidance-for-Payer-and-Provider-Groups/Implementation-Manual for the carrier's contact(s) to fill out and email to OHS. This information is required:

- To facilitate user access to the State's SFT Web Client;
- To confirm the user is the authorized and designated contact for the carrier at registration;
- To facilitate securing and protecting confidential data;
- To enable OHS communicate with the contact about data error correction and validation, system or process changes and updates.

The contact will fill out the form and email it to OHS@ct.gov. OHS will acknowledge receipt of the filled form, credential and grant the contact/new user access to the State's network within two business days. Upon receiving the credentials to access the server, the authorized user will

upload the required data files. The contact must alert OHS through email after uploading the file(s).

Appendix E

Medicare FFS TME Data Specification

THCE (per capita) =

$$\frac{\left(\begin{array}{c}\textit{Commercial TME} + \textit{Medicare Managed Care TME} + \textit{Medicare FFS TME} + \\ \textit{DSS Medicaid TME} + \textit{DOC TME} + \textit{VHA TME} + \textit{Insurer NCPHI}\end{array}\right)}{\textit{Connecticut Population}}$$

OHS will be able to receive TME and enrollment data from Medicare FFS annually by September 1 of the year following the measurement period (e.g., 2019 data will be available September 1, 2020). CMS believes that data will be at least 90% complete by September 1.

Specifically, CMS will share total program payments and cost sharing for the following services:

- Hospital inpatient
- Hospital outpatient
- Non-hospital outpatient
- Home health agency
- Hospice
- Skilled nursing facility
- Physician
- Other professionals
- Durable medical equipment
- Other suppliers
- Part D[27]

These services are mapped to the TME reporting categories as outlined in Table E-1 below:

Table E-1. Mapping of Medicare Service Categories to TME Service Categories

Medicare Service Categories	TME Service Mapping
Hospital Inpatient	Hospital Inpatient
Hospital Outpatient	Hospital Outpatient
Non-Hospital Outpatient	Other
Home Health Agency	Long-Term Care
Hospice	Other
Skilled Nursing Facility	Long-Term Care

[27] As part of the TME data received from CMS, CMS will be providing OHS Part D data for individuals enrolled in FFS stand-alone PDPs as well as Medicare managed care enrollees in MAPD or MA-only plans.

Medicare Service Categories	TME Service Mapping
Physician	Professional, Primary Care and Professional, Specialty (must be combined when reporting service level category spending with CMS data)
Other Professionals	Other
Durable Medical Equipment	Other
Other Suppliers	Other
Part D	Retail Pharmacy

CMS will also share enrollment figures for Medicare Parts A, B and D broken out between managed care and FFS. CMS reports beneficiaries based on the resident location as of the end of the calendar year.

To receive Medicare FFS TME data from CMS, OHS needs to make a formal request to CMS by emailing the attached Excel file **(Attachment 1)** to Stephanie Bartee, Director of the Information Products and Analytics Group in the Office of Enterprise Data Analytics, (stephanie.bartee@cms.gov) and copying: CMSProgramStatistics@cms.hhs.gov. **Please note, CMS has specifically requested that Connecticut staff (not a contractor) make the official request.**

CMS is willing to share the data with OHS by September 1 if the data request is made by June 1.

Appendix F

Medicare FFS Primary Care Data Specification Using APCD Data

To be developed April/May 2021

Appendix G

VHA TME Data Collection Process

Statistics on Connecticut veteran healthcare spending is published in the summer by the Veterans Health Administration (VHA) National Center for Analysis and Statistics. The information is accessed here: www.va.gov/vetdata/Expenditures.asp. The figure "Medical Care" is reported as "VHA TME" in the formula below:

THCE (per capita) =

$$\frac{\left(\begin{array}{c}\textit{Commercial TME} + \textit{Medicare Managed Care TME} + \textit{Medicare FFS TME} + \\ \textit{DSS TME} + \textit{DOC TME} + \textit{VHA TME} + \textit{Insurer NCPHI}\end{array}\right)}{\textit{Connecticut Population}}$$

Per the notes on the VHA expenditure report, "Medical Care" includes expenditures for medical services, medical administration, facility maintenance, educational support, research support and other overhead items. Medical care expenditures do not include dollars for construction or other non-medical support.

It is important to note that VHA expenditure report data is reported on a federal fiscal year basis (October–September) and not on a CY basis. Therefore, OHS will utilize the fiscal year that contains nine months of the reporting CY (e.g., fiscal year 2020 data should be used in lieu of CY 2020 data). This is not consistent with the reporting from other payers and should be footnoted as such, but it is not expected to make a large impact.

More detailed TME data on veterans has not been identified yet. If other sources of veterans' data are identified in the future, this manual will need to be updated.

VHA TME is only reported at the state level. Service category detail has not been available in the VHA expenditure report only the total for all "Medical Care." Therefore, when reporting data at the service category level, VHA data will have to be excluded.

Appendix H

NCPHI Data Specification

THCE (per capita) =

$$\frac{\left(\begin{array}{c}\textit{Commercial TME + Medicare Managed Care TME + Medicare FFS TME +} \\ \textit{DSS Medicaid TME + DOC TME + VHA TME + Insurer NCPHI}\end{array}\right)}{\textit{Connecticut Population}}$$

This element captures the costs to Connecticut residents associated with the administration of private health insurance. It is defined as the difference between health premiums earned and benefits incurred and consists of insurers' costs of paying bills, advertising, sales commissions and other administrative costs, premium taxes and profits or losses. **NCPHI is reported as a component of THCE at the State, market and insurer levels. NCPHI should not be reported at the provider level.**

Because of substantial differences among segments of the Connecticut health insurance market, NCPHI will be calculated on a PMPM basis separately for the seven different market segments: (1) Individual Market; (2) Large Group, Fully Insured; (3) Small Group, Fully Insured; (4) Self-insured; (5) Student market; and (6) Medicare Advantage. The methodology and data sources for the calculation of NCPHI for each market segment are described below.

Individual, Small Group, Fully Insured, Large Group, Fully Insured and Student Markets (collectively, the "commercial fully insured market")

The federal commercial medical loss ratio (MLR) reports will be used to calculate NCPHI for the commercial fully insured market and need to be requested from the insurers as part of their TME data submission, or obtained from CMS Center for Consumer Information and Oversight (CCIIO).[28] These reports become publicly available in the fall, but should be requested from insurers when they submit their TME data in order to meet the reporting timeline. In an instance in which the MLR report submitted to OHS on the TME deadline differs from the final submission an insurer makes to CCIIO, the insurer must notify OHS in writing as soon as possible. The data elements that will be used in the calculation are detailed below:

[28] Available at: www.cms.gov/CCIIO/Resources/Data-Resources/mlr.html. April 7, 2020.

NCPHI =

Premium as of March 31 (part 1, Line 1.1) – [Total Incurred Claims as of March 31 (Part 1, Line 2.1) + Advance Payments of Cost Sharing Reductions (Part 2, Line 2.18)] – MLR Rebates Current Year (Part 3, Line 6.4)

NCPHI PMPM =

$$\frac{\textit{NCPHI}}{\textit{Member Months as reported on the Market Enrollment Tab of the TME data}[29]}$$

Medicare Advantage

The Supplemental Health Care Exhibit (SHCE) from the National Association of Insurance Commissioners (NAIC) will be used to derive NCPHI of the Medicare Advantage market. The SHCE can be obtained from The Medicare Advantage reporting combines stand-alone prescription drug plans (PDP) and the Medicare Advantage plans with Part D inclusion (MAPDs). Therefore, insurers that offer both PDP and MAPD will need to separately report health premiums earned, total incurred claims and members months for PDP and MAPD.

Insurers must also submit names for which they are "Doing Business As" for Medicare and Medicare Advantage on an annual basis.

The data elements that will be used in the calculation are detailed below.

NCPHI =

Health Premiums Earned (Part 1, Line 1.1) - Total Incurred Claims (Part 1, Line 5.0)

NCPHI PMPM =

$$\frac{\textit{NCPHI}}{\textit{Member Months as reported on the Market Enrollment Tab of the TME data}}$$

Self-Insured Market

OHS requests insurance carriers to report aggregate information on the premiums earned from their self-insured accounts (e.g., "fees from uninsured plans"). Carriers should follow the instructions for Part 1, Line 12 on the NAIC SCHE for their Connecticut-situs self-insured accounts. This will be used to derive NCPHI of the self-insured market. The formula will be:

[29] OHS will not use the member months that are reported on the MLR or SHCE forms as those forms are based on in situ information, whereas the spending benchmark is intended to capture Connecticut residents. By using member months reported by market segment within the TME data, OHS will assume that the experience of the insurer across all of its Connecticut business (regardless of whether it insures a member from another state) is the same experience as Connecticut residents.

NCPHI =

Carrier data reported pursuant to Part 1, Line 12 of the SHCE

NCPHI PMPM =

$$\frac{\textit{NCPHI}}{\textit{Member Months as reported on the Market Enrollment Tab of the TME data}}$$

Table H-1 below provides the columns associated with each line of business/market in the SHCE and the MLR reports.

Table H-1. Columns Associated with Each Line of Business in SHCE and MLR Reports

Line of Business/Market	SHCE Column	MLR Column (Parts 1 and 2)	MLR Column (Part 3)
Individual	N/A	2	4
Small Group, Fully Insured	N/A	7	8
Large Group, Fully Insured	N/A	12	12
Student	N/A	36	36
Medicare Advantage and PDP	12	N/A	N/A
Self-Insured	14	N/A	N/A

Aggregate NCPHI

Upon calculating each market segment NCPHI, OHS will calculate the aggregate NCPHI. To do so, first commercial data need to be adjusted to use in situ information. Do so by calculating the average NCPHI PMPM by market segment by adding the total NCPHI by insurer within the segment and then dividing it by the total member months as reported in the MLR report. Next, take the newly calculated average NCPHI PMPM and multiply it by each insurer's market segment member months as reported within the TME submission to get NCPHI for each insurer within each market segment.

Now that data are comparable, each segment's PMPM amount should be multiplied by the Connecticut resident market enrollment member months, in each segment, as reported within the TME submission.

Appendix I

Connecticut Total Population Statistics

The denominator of the THCE per capita calculation is the Connecticut state population count for the respective reporting period. The source of the Connecticut population value is the Connecticut State Department of Public Health's estimates. The most recently available census figures, which will be a snapshot in time figures (not full-year estimates) for the measurement year, should be used as the "Connecticut" figure in the THCE per capita formula listed below.

THCE (per capita) =

$$\frac{\left(\begin{array}{c}\textit{Commercial TME} + \textit{Medicare Managed Care TME} + \textit{Medicare FFS TME} + \\ \textit{DSS Medicaid TME} + \textit{DOC TME} + \textit{VHA TME} + \textit{Insurer NCPHI}\end{array}\right)}{\textit{Connecticut Population}}$$

Appendix J

Insurance Carrier Attestation

Attestation of the Accuracy and Completeness of Reported Data

Instructions: Please enter all requested information in the blank spaces provided below and have an authorized signatory sign the attestation. Insurers should submit one "Attestation of the Accuracy and Completeness of Reported Data" per calendar year. Scanned copies of the signed attestations should be emailed to: Krista.Moore@ct.gov.

Insurer: _____

Calendar Year(s) Being Reported: _____

Pursuant to Connecticut's establishment, monitoring and implementation of annual Health Care Cost Growth Benchmark and a Primary Care Spending Targets under Governor Lamont's Executive Order No. 5 and State-defined reporting guidelines which can be found in the Connecticut Healthcare Benchmark Initiative Implementation Manual, certain health insurers operating in the state of Connecticut must annually submit certain data requested to calculate insurer and provider performance relative to Connecticut's Benchmark.

I hereby attest that the information submitted in the reports herein is current, complete and accurate to the best of my knowledge. I understand that whoever knowingly and willfully makes or causes to be made a false statement or representation on the reports may be prosecuted under any applicable state laws. Failure to sign this Attestation of the Accuracy and Completeness of Reported Data will result in OHS' non acceptance of the attached reports.

_____	_____
Signature	Date
_____	_____
Printed Name	Title

Appendix K

Sources for Potential Gross State Product (PGSP) Formula

Components	Source
Expected growth in national labor force productivity	The source was the most recently published Congressional Budget Office Budget and Economic Outlook, 10-Year Economic Projections (January 2020).[30] The CBO projected the nonfarm business sector labor productivity in its data supplement located here: (https://www.cbo.gov/system/files/2020-01/51135-2020-01-economicprojections_0.xlsx). In general, the figure used to calculate PGSP should be the value that is forecast for five through 10 years into the future.
Expected growth in the state civilian labor force	The source is CT Office of Policy and Management, using IHS Markit projections as of May 21, 2020.
Expected national inflation	The source was the most recently published Congressional Budget Office Budget and Economic Outlook, 10-Year Economic Projections (January 2020).[31] The CBO projected the Price Index, Personal Consumption Expenditures (PCE) in its data supplement located here: (https://www.cbo.gov/system/files/2020-01/51135-2020-01-economicprojections_0.xlsx In general, the figure used to calculate PGSP should be the value of the "PCE price index"

[30] As of February 9, 2021, the Congressional Budget Office published its Budget and Economic Outlook Reports here: www.cbo.gov/about/products/major-recurring-reports#1.
[31] As of February 9, 2021, the Congressional Budget Office published its Budget and Economic Outlook Reports here: www.cbo.gov/about/products/major-recurring-reports#1.

	percentage change from year to-year that is forecast for five through 10 years into the future.
Expected state population growth	The source is CT Office of Policy and Management, using IHS Markit projections as of May 21, 2020.

Appendix L

Statistical Testing to Determine Performance Against the Benchmark

To determine whether an insurer or provider entity met or did not meet the benchmark, OHS will conduct hypothesis testing using confidence intervals. OHS will first develop confidence intervals around each insurer and provider entity's performance. These confidence intervals indicate the range of reasonable estimates of actual healthcare cost growth. If the 95% percent confidence interval contains the benchmark value, then OHS would not be able to determine that the insurer or provider entity's performance is significantly different from the benchmark. However, if the benchmark value lies outside of the 95% confidence interval, OHS would be able to determine that the insurer or provider entity either met or exceeded the healthcare cost growth benchmark.

OHS will use average TME PMPY, the number of members/attributed patients, and the variance information TME PMPY costs to calculate the confidence intervals for the following:

- **Per member healthcare cost growth, by line of business, for each insurer.** Each insurer will report the variance by line of business, thus OHS will not need to pool variances.
- **Per member healthcare growth, by insurance line of business, for a provider entity whose data is listed in multiple insurers' data submission.** OHS will pool the variances (i.e., take a weighted average) for each provider entity by line of business such that commercial spending has a pooled variance and Medicare Advantage spending has a pooled variance. Then OHS will pool the variances across multiple years within each line of business to calculate the confidence intervals of the provider entity's Commercial growth. This would be repeated to calculate the confidence interval for the provider entity's Medicare Advantage growth.

Formulae for Calculating Confidence Intervals

The following describes the formulae needed to pool variances and calculate confidence intervals.

Notation Table	
i	Year index, 1 = prior year, 2 = current year
df	Degrees of freedom
n_i	Sample size for year i
V_i	Variance (or standard deviation squared) for year i
$\bar{X}_i$	Mean per member cost for year i
ρ	Growth target ratio

The formula for pooling the variance of two samples is as follows:

$$V_{\text{pool}} = \frac{V_1(n_1 - 1) + V_2(n_2 - 1)}{n_1 + n_2 - 2}$$

OHS will use the following formula for calculating confidence intervals with unequal variances:

$$CI = \frac{\bar{X}_1\bar{X}_2 \pm \sqrt{\bar{X}_1^2\bar{X}_2^2 - \left(\bar{X}_1^2 - t_{\widehat{\text{df}},\alpha}^2 \frac{V_1}{n_1}\right)\left(\bar{X}_2^2 - t_{\widehat{\text{df}},\alpha}^2 \frac{V_2}{n_2}\right)}}{\bar{X}_1^2 - t_{\widehat{\text{df}},\alpha}^2 \frac{V_1}{n_1}}$$

Where $t_{\widehat{\text{df}},\alpha}$ equals the t statistic given the degrees of freedom ($\widehat{\text{df}}$) and the value of alpha (α). For 95% confidence, the alpha value is 0.05, which means:

$t_{\widehat{\text{df}},0.05}$ = 1.644861 (when using a one-sided test)

Sample Calculations Using Mock Data

The following walks through examples of calculating growth rates and confidence intervals around the growth rates using the above formula with mock data.

Insurer A Spending Reported for 2018

Paid entity	Line of Business	Avg Risk-Adjusted PMPY TME	Avg PMPY NCPHI	Members	Risk-Adjusted Variance
Hosp System Z	MA	$5,000	n/a	17,500	$4,000,000
Hosp System Z	Commercial	$7,800	n/a	55,000	$9,000,000
Main St Prov Gp	MA	$800	n/a	7,750	$122,500
Main St Prov Gp	Commercial	$1,000	n/a	32,000	$225,625
Totals	MA	$3,711	$700	25,250	$1,210,000
Totals	Commercial	$5,299	$400	87,000	$3,240,000

Insurer A Spending Reported for 2019

Paid entity	Line of Business	Avg Risk-Adjusted PMPY TME	Avg PMPY NCPHI	Members	Risk Adjusted Variance
Hosp System Z	MA	$5,300	n/a	16,000	$4,410,000
Hosp System Z	Commercial	$8,200	n/a	60,000	$20,250,000
Main St Prov Gp	MA	$850	n/a	6,000	$250,000
Main St Prov Gp	Commercial	$1,300	n/a	40,000	$455,625
Totals	MA	$4,086	$800	22,000	$5,290,000
Totals	Commercial	$5,440	$500	100,000	$4,410,000

Insurer B Spending Reported for 2018

Paid entity	Line of Business	Avg Risk-Adjusted PMPY TME	Avg PMPY NCPHI	Members	Risk Adjusted Variance
Hosp System Z	MA	$4,800	n/a	15,000	$2,250,000
Hosp System Z	Commercial	$8,000	n/a	30,000	$6,250,000
Main St Prov Gp	MA	$800	n/a	6,500	$90,000
Main St Prov Gp	Commercial	$1,000	n/a	29,000	$250,000
Totals	MA	$3,591	$700	21,500	$1,000,000
Totals	Commercial	$4,559	$400	59,000	$1,690,000

Insurer B Spending Reported for 2019

Paid entity	Line of Business	Avg Risk-Adjusted PMPY TME	Avg PMPY NCPHI	Members	Risk Adjusted Variance
Hosp System Z	MA	$4,900	n/a	14,500	$4,000,000
Hosp System Z	Commercial	$8,250	n/a	35,000	$20,250,000
Main St Prov Gp	MA	$860	n/a	6,300	$250,000
Main St Prov Gp	Commercial	$1,150	n/a	30,000	$455,625
Totals	MA	$3,676	$500	20,800	$9,000,000
Totals	Commercial	$4,973	$450	65,000	$27,562,500

a. Calculating Confidence Intervals for Each Insurer's Line of Business

At the insurer level, OHS will report growth in THCE, which includes TME and NCPHI. While insurers report aggregate spending and variance information for TME, OHS calculates NCPHI separately using insurance filings. In assessing insurer performance, OHS will combine PMPY growth in NCPHI to the PMPY growth in TME and calculate the confidence interval around year over year growth of that total.

Using the above data and formula for calculating confidence intervals, where $\bar{X}$ ***is defined as the average PMPY THCE***, the growth in Insurer A's commercial per member cost from 2018 to 2019 is calculated as follows:

= ($5,440 + $500)/($5,299 + $400) – 1 = $5,940/$5,699 – 1 = 0.04231545

The confidence interval for Insurer A's PMPY growth in commercial spending is calculated as follows:

Numerator:

= ($5,299 + $400) x ($5,440 + $500) +/- √[($5,299 + $400)^2 x ($5,440 + $500)^2 – (($5,299 + $400)^2 - 1.644861^2 x $3,240,000/87,000) x (($5,440 + $500)^2 - 1.644861^2 x $4,410,000/100,000)]

= 33,851,172 +/- √[32,476,898 x 35,283,600 – (32,476,898 - 2.70569601 x 37.24) x (35,283,600 – 2.70569601 x 44.10)]

= 33,851,772 +/- √[7,430,129,294]

= 33,851,772 +/- 86,198.19774

Denominator:

= (($5,299 + $400)^2 - 1.644861^2 x $3,240,000/87,000) = $32,476,797.11

Upper Estimate:

= ($33,851,172 + $86,198.19774)/$32,476.797.11 - 1 = 0.044972831

Lower Estimate:

= ($33,851,172 – $87,198.19774)/$32,476.797.11 – 1 = 0.039664536

Thus the growth rate from 2018 to 2019 was 4.23% and the 95% confidence interval range is 3.97% and 4.50%. Therefore, we can say with 95% certainty that Insurer A's Commercial line of business did not meet the cost growth benchmark by growing more than 3.4%. This calculation would then be repeated for Insurer A's Medicare line of business.

b. Calculating Confidence Intervals for Each Provider Entity by Line of Business

At the provider level, OHS will calculate growth using only TME. Using the above data, the weighted average in Hospital Z's Medicare Advantage spending and pooled variance for 2018 and 2019 are calculated as follows:

Weighted average PMPY spending:

For 2018 = ($5,000 x 17,500 + $4,800 x 15,000) / (17,500 + 15,000) = $4,908

For 2019 = ($5,300 x 16,000 + $4,900 x 14,500) / (16,000 + 14,500) = $5,110

Pooled variance:

For 2018 = ($4,000,000 x (17,500-1) + $2,250,000 x (15,000 – 1)) / (17,500 + 15,000 – 2) = $3,192,312

For 2019 = ($4,410,000 x (16,000 – 1) + $4,000,000 x (14,500 – 1)) / (16,000 + 14,500 – 2) = $4,215,083

Hospital System Z's Medicare Advantage Spending

Year	Weighted PMPY average (only TME)	Pooled variance	Sample size (total attributed patients)
2018	$4,908	$3,192,312	32,500
2019	$5,110	$4,215,083	30,500

The per member growth in Hospital Z's Medicare Advantage spending from 2018 to 2019 is calculated as follows:

= $5,110/$4908 – 1 = 0.0411572

The confidence interval for the PMPY growth in Hospitals Z's Medicare Advantage spending is calculated as follows:

Numerator:

= ($4,908 x $5,110) +/- √[$4,908^2 x $5,110^2 – ($4,908^2 - 1.644861^2 x $3,192,312/32,500) x ($5,110^2 - 1.644861^2 x 4,215,083/30,500)]

= $25,077,503 +/- √[$24,085,444 x $26,110,425 – ($24,085,444 - 2.70569601 x $98.22) x ($26,110,425 – 2.70569601 x $138.20)]

= $25,077,053 +/- √[$15,944,597,210]

= $25,077,053 +/- $126,271.9177

Denominator:

$$= (\$4{,}908^2 - 1.644861^2 \times 3{,}192{,}312/32{,}500) = \$24{,}085{,}178.03$$

Upper Estimate:

$$= (25{,}077{,}503 + 126{,}271.9177)/\ 24{,}085{,}178.03 = 0.046443378$$

Lower Estimate:

$$= (25{,}077{,}503 - 126{,}271.9177)/24{,}085{,}178.03 = 0.035957932$$

Thus the growth rate from 2018 to 2019 was 4.12% and the 95% confidence interval range is 3.60% and 4.64%. Therefore, we can say with 95% certainty that Hospital Z's growth in Medicare Advantage costs did not meet the cost growth benchmark by growing more than 3.4%. This calculation would then be repeated for Hospital Z's Medicare Advantage spending and Medicaid spending.