

CENTER FOR HEALTH INFORMATION AND ANALYSIS

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**PERFORMANCE OF THE  
MASSACHUSETTS  
HEALTH CARE SYSTEM**

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TOTAL HEALTH CARE  
EXPENDITURES

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TOTAL MEDICAL EXPENSES

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ALTERNATIVE  
PAYMENT METHODS

TECHNICAL APPENDIX 2016



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# Total Health Care Expenditures, Total Medical Expenses, and Alternative Payment Methods

## TECHNICAL APPENDIX

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## Total Health Care Expenditures (THCE)

THCE is calculated annually to fulfill two primary objectives: analysis of state-level expenditures and the annual growth rate, as well as analysis of potential drivers of cost growth. CHIA's THCE model uses data that was reported within the required timeframe by Massachusetts commercial payers, Centers for Medicare and Medicaid Services (CMS), MassHealth - the Massachusetts Medicaid program, and other government agencies.<sup>1</sup>

### Definitions:

THCE is a measure of total spending for health care in the Commonwealth. Chapter 224 of the Acts of 2012 (Chapter 224) defines THCE as the annual per capita sum of all health care expenditures in the Commonwealth from public and private sources, including: (i) all categories of medical expenses and all non-claims related payments to providers, as included in the health status adjusted total medical expenses (TME) reported by CHIA; (ii) all patient cost-sharing amounts, such as deductibles and copayments; and (iii) the net cost of private health insurance, or as otherwise defined in regulations promulgated by CHIA.<sup>2</sup>

### Data Year:

Calendar years (CYs) 2013, 2014, 2015

### Data Sources:

THCE CATEGORY	DATA SOURCE
<u>Commercially Insured Expenditures</u>	
Commercial Full-Claim	TME data reported by commercial payers to CHIA
Commercial Partial-Claim	TME data reported by commercial payers to CHIA with actuarial estimates
Non-TME Filers	Actuarial estimates from CMS' MLR reporting data and Supplemental Health Care Exhibit from the National Association of Insurance Commissioners (NAIC) by commercial payers with Massachusetts contracts
<u>Public Coverage Expenditures</u>	
MassHealth MCOs	TME data reported by commercial payers to CHIA
Commonwealth Care MCOs	TME data reported by commercial payers to CHIA
MassHealth (PCC, FFS, SCO, PACE, One Care, and Other)	Reported by MassHealth
Medicare Advantage	TME data reported by commercial payers to CHIA
Medicare Parts A and B	CMS data summary to CHIA

<sup>1</sup> Detailed information on THCE data sources and methodologies is available at: <http://www.chiamass.gov/assets/docs/r/pubs/15/THCE-Methodology-Paper.pdf> (Last accessed: August 20, 2015)

<sup>2</sup> Defined in M.G.L. c. 12C, Section 1.

Medicare Part D	CMS data summary to CHIA
Health Safety Net	Reported by MassHealth
Medical Security Program	Reported by commercial payers to CHIA
Veteran Affairs	National Center for Veteran Analysis and Statistics (FYs 2013, and 2014, 2015)
<u>Net Cost of Private Health Insurance</u>	Calculated from the Medical Loss Ratio Reports from the Massachusetts Division of Insurance (DOI), the Annual Statutory Financial Statement and Supplemental Health Care Exhibit from the National Association of Insurance Commissioners (NAIC), and the Medical Loss Ratio Reports from the Center for Consumer Information and Insurance Oversight (CCIO)
<u>Massachusetts population</u>	U.S. Census Bureau

## Methods:

CHIA is required to report on THCE annually to monitor the rate of growth and measure the Commonwealth's progress toward meeting its health care cost growth benchmark by September 1st of each year. This statutorily-mandated timeline impacts the model design and approach, as claim payment amounts are often not finalized until several months after the close of the calendar year. As such, the THCE timeline does not provide enough time for full claims run-out, provider quality and cost performance evaluation, and financial settlements for the performance year. Thus, in order to report on THCE within the timeline required, estimates of claims run-out and provider settlements were incorporated into the initial assessment for a given performance year.

This report provides an initial assessment for the 2015 performance year, examining THCE growth between CYs 2014 and 2015, and a final assessment for the 2014 performance year, examining THCE growth between CYs 2013 and 2014. The initial assessment for the 2014 performance year was presented in CHIA's September 2014 Annual Report. The final assessment for the 2014 performance year updates the initial results with up to 16 months of claims out and settlements.

This initial assessment of THCE was comprised of TME-sourced aggregate data from commercial payers with up to four months of claims run-out, MassHealth data, CMS-sourced Medicare data, and supplemented by claims completion and settlement estimates obtained directly from the payers. The final assessment for THCE growth between 2014 and 2015 will be published in next year's Annual Report, with an expected publication date of September 2017.

## Commercially-Insured Expenditures

In accordance with the requirements of THCE, the model includes expenditures by commercial payers on behalf of Massachusetts residents, including both the fully-insured and self-insured populations. For this initial assessment, the primary data source was TME-reported data, which was filed directly with CHIA by the ten largest commercial payers in the Massachusetts market and the commercial payers offering MassHealth and Commonwealth Care MCO plans as well as Medicare Advantage plans. The TME data includes claims and non-claims payments. Payers submitted this data based on "allowed amounts," which include paid medical claims as well as patient cost-sharing, such as

copayments, coinsurance, and deductibles. As such, the TME data captures the health care expenditures of commercial payers and their members.

In some circumstances, payers are only able to report claim payments for limited medical services due to benefit design, where some services such as behavioral health or pharmacy services may be “carved out”, or provided separately from the other medical services. In these instances, payers are unable to obtain the payment information and do not hold the insurance risk for the carved-out services. Thus, payers reported this type of TME data separately in the commercial partial-claim category.<sup>3</sup> To estimate the full TME amount for the commercial partial-claim population, CHIA made actuarial adjustments based on the reported partial-claim TME data. These adjustments were made by first calculating partial-claim TME per member per month (PMPM) and the PMPM amount for each service category using each payer’s zip-code level TME data.<sup>4</sup> Next, CHIA calculated health-status adjusted (H.S.A.) TME and the PMPM amount by service category for the full-claim population, using the risk scores of the TME partial-claim population of the payer. For service categories where the PMPM amount of the partial-claim population exceeded that of the adjusted PMPM amount of the full-claim population, the reported amount was used. For the remaining service categories, the PMPM amount was adjusted to represent the same proportion of TME as the full-claim population, with excess non-claims redistributed to the other service categories. If the PMPM amount for each service category of the partial-claim population was less than that of the full-claim population, adjusted to partial-claim risk scores, CHIA used the adjusted full-claim PMPM amount for the service categories.

To include expenditures from the commercial payers with smaller market shares in Massachusetts that are not required to submit TME data, CHIA utilized expense information from publicly-available data sources. For both 2013 and 2014 spending, the Medical Loss Ratio (MLR) reports filed with the federal Center for Consumer Information and Insurance Oversight (CCIIO) were used. For 2015 spending, the data from Supplemental Health Care Exhibit was used due to the timing of data availability at the time of compiling this report. Only commercial payers with established Massachusetts contracts were included in the calculation, as THCE is intended to capture health care expenditures for Massachusetts residents only. To estimate the proportion of the reported spending that applies to Massachusetts residents, CHIA used hospital-reported discharge data to estimate the proportion of hospital inpatient discharges that were non-Massachusetts residents. This proportion was then applied to the reported spending to exclude the estimated proportion of expenditures on behalf of non-Massachusetts residents. This approach ensured that THCE included expenditures from all private health insurance plans that are licensed to sell health insurance in Massachusetts.

## Public Coverage Expenditures

In addition to expenditures by commercial payers and their members, THCE also includes expenditures from public coverage and programs, including MassHealth Managed Care Organizations (MCOs), Commonwealth Care MCOs, MassHealth, Medicare, Medicare Advantage plans, Health Safety Net (HSN), Medical Security Program, and Veteran Affairs.

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<sup>3</sup> Please see CHIA’s regulation 957 CMR 2.00 for the submission requirements of TME data.

<sup>4</sup> As defined in 957 CMR 2.00, service categories of TME data include: hospital inpatient, hospital outpatient, professional physician, professional other, pharmacy, other, and non-claim payments.

Data for MassHealth MCO, Commonwealth Care MCO and Medicare Advantage plans was obtained from TME data filed by commercial payers with CHIA.<sup>5</sup> Massachusetts beneficiaries' expenditures from Medicare Parts A, B and D were provided to CHIA by CMS. MassHealth and HSN data was obtained through collaboration with those agencies' financial departments. Data on the Medical Security Program was sourced from the commercial payers as part of the annual TME data filing. The data source for Veteran Affairs spending was the annual reported expenditures of "Medical Care" by the National Center for Veteran Analysis and Statistics.<sup>6</sup>

### Net Cost of Private Health Insurance (NCPHI)

CHIA calculated NCPHI for all Massachusetts residents, both those who are covered by private health insurance licensed by the Massachusetts Division of Insurance (DOI), and those obtaining coverage through out-of-state insurance plans. NCPHI also includes residents enrolling in private managed care plans of Medicare and MassHealth, but excludes out-of-state residents covered under Massachusetts-based insurance plans.

Because of substantial differences among segments of the Massachusetts health insurance market, NCPHI was calculated on a PMPM basis separately for the five different market segments: (1) merged market<sup>7</sup>; (2) large group fully-insured; (3) Medicare Advantage; (4) Medicaid MCOs and Commonwealth Care; and (5) self-insured. Each segment's PMPM amount was then multiplied by the estimated Massachusetts population in each segment to derive the total NCPHI.

Further detail on these data sources and the THCE methodology can be found in CHIA's methodology paper Massachusetts Total Health Care Expenditure Methodology.<sup>8</sup>

## Health Care Cost Growth Benchmark

Health Care Cost Growth Benchmark is the projected annual percentage change in THCE in the Commonwealth, as established by the Health Policy Commission (HPC). The health care cost growth benchmark is tied to growth in the state's economy, the potential Gross State Product (GSP). Chapter 224 has set the potential GSP for 2014 at 3.6%. The HPC established the health care cost growth benchmark for 2015 at 3.6%.

## Statewide Pharmacy Expenditures

In response to significant growth in both total pharmacy expenditures and per capita pharmacy expenditures across multiple insurance categories in recent years, this report includes a measure statewide pharmacy expenditures. The purpose of this measure is to better understand the scale of changes in pharmacy expenditures and the share of THCE spending changes that are attributable to changes in the pharmacy service category. CHIA's measure uses

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<sup>5</sup> Because of the implementation of Patient Protection and Affordable Care Act in 2014, Commonwealth Care MCOs did not enroll new members in 2014 and was ended in 2015 while MassHealth MCOs started to enroll new members under the CarePlus plan in 2014. Thus, the TME data filed to CHIA by commercial payers who offer MassHealth MCOs includes traditional MCO members and the new CarePlus members.

<sup>6</sup> Spending information from Veterans Affairs is available at <http://www.va.gov/vetdata/Expenditures.asp> (Last accessed August 20, 2015).

<sup>7</sup> Individuals and the Small Group form the "Merged Market" in Massachusetts, in which small group insurance laws apply to all small business and individual plans issued by an insurance carrier.

<sup>8</sup> Center for Health Information and Analysis (August 2015). Methodology Paper: Massachusetts Total Health Care Expenditures. Available at: <http://www.chiamass.gov/assets/docs/r/pubs/15/THCE-Methodology-Paper.pdf>. (Last accessed: August 20, 2015).

data that was reported by Massachusetts commercial payers, the Centers for Medicare and Medicaid Services (CMS), and MassHealth - the Massachusetts Medicaid program.

#### Definition:

No statutory definition of statewide pharmacy expenditures exists. For the purposes of this report, statewide pharmacy expenditures is the annual sum of all reported spending in the pharmacy service category that is included in THCE. Total pharmacy spending includes health care expenditures from public and private sources, and consists of: (i) all categories of medical expenses payments to pharmacies, and (ii) all patient cost-sharing amounts, such as deductibles and copayments.

#### Data Years:

CYs 2013, 2014, 2015

#### Data Sources:

Data Category	Data Source
<u>Commercially-Insured Pharmacy Expenditures</u>	
Commercial Full-Claim	TME data reported by commercial payers to CHIA
Commercial Partial-Claim	TME data reported by commercial payers to CHIA with actuarial estimates
<u>Public Coverage Pharmacy Expenditures</u>	
MassHealth MCOs	TME data reported by commercial payers to CHIA
Commonwealth Care MCOs	TME data reported by commercial payers to CHIA
MassHealth (FFS, PCC, Temporary, CommCare wrap, MCO wrap, and CarePlus wrap)	Reported by MassHealth
Medicare Advantage (Part D)	TME data reported by commercial payers to CHIA
Medicare Part D (standalone PDP members)	CMS data summary to CHIA
<u>Net Cost of Private Health Insurance</u>	Calculated from the Medical Loss Ratio Reports from the Massachusetts Division of Insurance (DOI), the Annual Statutory Financial Statement and Supplemental Health Care Exhibit from the National Association of Insurance Commissioners (NAIC), and the Medical Loss Ratio Reports from the Center for Consumer Information and Insurance Oversight (CCIIO)
<u>Massachusetts population</u>	U.S. Census Bureau

## Methods:

CHIA's measure of statewide pharmacy expenditures is calculated based using all data elements included in THCE for which total expenditures are reported at the service category level. The measure is therefore the sum of pharmacy service category spending for commercial full-claim, commercial partial-claim<sup>9</sup>, MassHealth MCO, MassHealth FFS, MassHealth PCC, Commonwealth Care MCO, Medicare Advantage, and Medicare standalone prescription drug plan (PDP) members. MassHealth wrap payments are included in this calculation for both MassHealth MCOs and Commonwealth Care MCOs. Additional information on how spending data is collected and calculated in each of these categories can be found in the THCE section above.

Several insurance categories included in THCE do not report data at the service category level and are therefore excluded from the measure of statewide pharmacy expenditures. Specifically, data for Veterans Affairs, Medical Security Program, Health Safety Net, One Care, PACE, and SCO pharmacy spending is excluded from this analysis due to lack of availability. Similarly, data on commercial plans that do not report TME data to CHIA – “Non-TME filers” – is excluded. To determine the share of total healthcare spending in the Commonwealth accounted for by pharmacy expenditures, CHIA utilizes an adjusted THCE amount that excludes all spending in these “excluded” insurance categories. This total amount does include NCPHI spending. The total share of spending accounted for by pharmacy expenditures is therefore calculated by dividing the statewide pharmacy expenditures amount by the adjusted THCE amount.

To determine per capita statewide pharmacy expenditure amounts, CHIA utilizes population and member month data from several sources. To determine total statewide per capita pharmacy expenditures, CHIA divides the total statewide pharmacy expenditures by the total Massachusetts population as estimated by the U.S. Census Bureau. Because this population amount is not reduced by the number of individuals enrolled in any excluded insurance categories, the per capita statewide pharmacy measure is likely an underestimate. To determine per member per month pharmacy expenditure amounts within each insurance category, CHIA uses insurer-reported member month data reported in Ch. 288 TME submissions and membership data reported by CMS and MassHealth. Since CMS reports standalone PDP membership in terms of the number of individuals enrolled in PDPs in one month, CHIA grosses up the PDP membership amount by a factor of 12 to estimate total member months.

## Prescription Drug Rebates

### Background

There is growing interest in understanding more precisely how prescription drug rebates impact assessments of pharmacy spending in Massachusetts. In January 2016, the Health Policy Commission (HPC) stated that incorporating drug rebate information is, “crucial for accuracy in tracking drug spending.” In addition, the Massachusetts Legislature amended M.G.L. chapter 12C in May 2016 to require that CHIA “consider the effect of

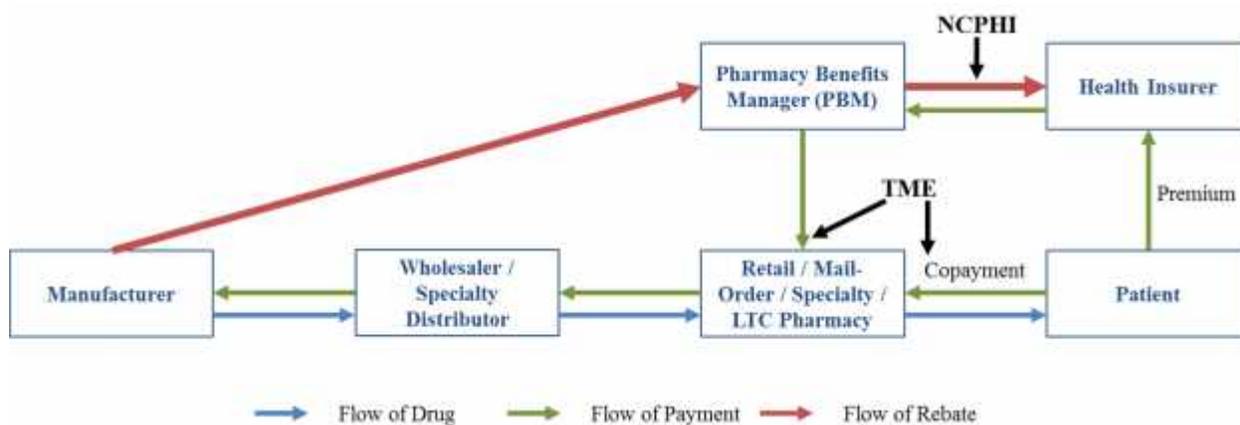
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<sup>9</sup> Actuarial adjustments are made to commercial partial-claim expenditures to account for spending on “carved-out” services. For additional information on the methodology for making such adjustments, see the section above on THCE.

drug rebates and other price concessions in the aggregate without disclosure of any product or manufacturer-specific rebate or price concession information, and without limiting or otherwise affecting the confidential or proprietary nature of any rebate or price.”

A prescription drug rebate is a refund for a portion of the price of a prescription drug covered under the pharmacy benefit.<sup>10</sup> Such refunds are paid retrospectively and typically negotiated between the drug manufacturer and pharmacy benefit managers (PBMs), who may share a portion of the refunds with clients that may include insurers, self-funded employers, and public insurance programs. The refunds can be structured in a variety of ways and refund amounts vary significantly by drug and payer. For reference, the typical supply chain for pharmacy-dispensed prescription drugs is illustrated in Figure 1 (Supply Chain for Pharmacy-Dispensed Prescription Drugs) below.

Figure 1: Supply Chain for Pharmacy-Dispensed Prescription Drugs



To accurately account for rebates in THCE, rebate amounts would need to be reflected in both the NCPHI and TME metrics. Currently, prescription drug rebates received by health insurers are deducted from incurred claim expenses when calculating NCPHI.<sup>11</sup> Broadly, the total NCPHI amount is intended to measure the difference between payer revenues and net incurred claims expenses. By accounting for rebates received by private health insurers, NCPHI more accurately reflects the difference between payer revenues and net incurred claims.<sup>12</sup> However, prescription drug rebates are not reflected in TME. Since TME reflects payments made by payers and patients to providers for health care services, prescription drug rebates transmitted outside of the payer-provider relationship are not captured in the reported pharmacy spending. As a result, TME reflects the gross amounts paid to pharmacies for prescription drugs, rather than the net amounts paid.

<sup>10</sup> Drugs covered on a formulary or prescription drug list (PDL) under the pharmacy benefit. Such drugs are typically self-administered and dispensed by retail, mail-order, specialty, and long-term care pharmacies. In some cases, drugs dispensed by durable medical equipment (DME) suppliers are also covered under the pharmacy benefit.

<sup>11</sup> NCPHI is sourced from federal MLR reports and NAIC SHCE reports that are only filed by insurers on behalf of fully-insured members. Data for self-insured members is not included in these sources.

<sup>12</sup> NCPHI includes administrative expenses attributable to private health insurers, which may be for commercial or publicly-funded plans.

To fully account for the impact of prescription drug rebates on TME, it would be necessary to know the share of total pharmacy expenditures that rebates represent. Currently, it is not possible to estimate either using payer-reported TME data. In lieu of rebate information in TME data, CHIA attempted to estimate Massachusetts-specific prescription drug rebates by consulting two data sources: the Supplemental Health Care Exhibit (SHCE) and federal Medical Loss Ratio (MLR) reports. Additional information on our methods for estimating Massachusetts-specific rebates can be found in the “Payer Reported Rebates for Commercial Insurance” section below. However, as noted in the body of this report, there are several limitations to these rebate estimates. Going forward, CHIA will continue to explore alternative methods to identify and account for prescription drug rebates in TME.

### Payer Reported Rebates for Commercial Insurance

CHIA worked with its actuarial consultant to explore the feasibility of sourcing pharmaceutical rebate data from existing public reporting. Specifically, CHIA attempted to estimate rebate Massachusetts-specific rebates for commercial-insured members from 2013-2015. CHIA consulted two separate data sources to complete its estimate: the National Association of Insurance Commissioners (NAIC) Supplemental Health Care Exhibit (SHCE) and Centers for Medicare & Medicaid (CMS) Medical Loss ratio (MLR) reports. These are the same data sources as are used to measure NCPHI.

#### Definition:

No statutory definition of prescription drug rebates exists. For the purposes of the annual report, such rebates are defined as retrospective refunds for a portion of the price of a prescription drug paid by a drug manufacturer to a pharmacy benefit manager (PBM), insurer, self-insured employer, or public insurance program.

#### Data Sources:

Data Category	Data Source
<u>Pharmaceutical Rebate Percentage</u>	Calculated from the Annual Statutory Financial Statement and Supplemental Health Care Exhibit (SHCE) from the National Association of Insurance Commissioners (NAIC) and the Medical Loss Ratio Reports from the Center for Consumer Information and Insurance Oversight (CCIIO), a division of CMS.

The Affordable Care Act implemented the Medical Loss Ratio rule which requires that an insurance company devote a minimum percentage of revenues on medical care and efforts to improve the quality of care. To enforce this rule, health insurers are required to disclose how much they spend on health care and how much they spend on administrative costs, such as salaries and marketing. Insurer MLR data is submitted to CCIIO and is typically made publicly-available in the second half of the following calendar year. As a result, MLR data is currently available for CY 2013 and 2014. To help facilitate insurer MLR submissions, the NAIC developed the SHCE which insurers submit early in the following calendar year and from which the insurers can build their final MLR submissions. SHCE submissions are typically made available earlier in the following calendar year than the MLR report. For 2015, CHIA uses insurer SHCE data reports.

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For both the MLR and SHCE data reports, insurers are required to provide information on total prescription drug spending and total pharmaceutical rebates. For both the MLR and the SHCE, this data is included on lines 2.2 and 2.3, respectively. No additional information is provided in the MLR instructions to assist plans in how to report pharmaceutical rebates. The instructions for line 2.3 of the SHCE report read as follows: "Pharmaceutical rebates are arrangements between pharmaceutical companies and reporting entities in which the reporting entities receive rebates based upon the drug utilization of its subscribers at participating pharmacies... Oftentimes, a pharmacy benefits management company may determine the amount of the rebate based on a listing prepared for the reporting entity's review."

#### Data Years:

CYs 2013, 2014, and 2015

#### Methods:

To estimate the percentage of commercial prescription drug spending refunded in the form of pharmaceutical rebates, CHIA worked with its actuarial consultants to identify total prescription drug spending and pharmaceutical rebate amounts from the MLR and SHCE data. CHIA identified such data for all of the following payers offering health insurance in Massachusetts:

- Aetna Inc.
- Blue Cross Blue Shield of Massachusetts
- BMC HealthNet Plan
- Celticare Health Plan of Massachusetts
- Cigna
- Fallon Health
- Harvard Pilgrim Health Care
- Health New England
- Minuteman Health Inc.
- Neighborhood Health Plan
- Tufts Health Plan
- Tufts Health Public Plans
- UniCare Life and Health Insurance Company
- UnitedHealthcare

CHIA extracted data from the sources described above for the Individual, Small Group, Large Group, and Student Health insurance categories. CHIA then consolidated spending and rebate amounts across all reporting entities for each of the parent organizations above. To estimate the rebate percentage for each organization, CHIA divided the total pharmaceutical rebate amounts by the total prescription drug spending amounts.

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# Total Medical Expenses (TME)

## Data Source:

Collected annually by CHIA pursuant to M.G.L. c. 12 C, section 8, from both commercial and public payers. Please see Table TA-1 for a list of payers and reported data.

## Data Year:

CYs 2013, 2014 and 2015

## Definitions:

TME is defined as the total medical spending for a member population based on allowed claims (i.e. payer paid amount plus patient cost sharing) for all categories of medical expenses and all non-claims related payments to providers. TME is expressed on a PMPM basis.

- Member zip code TME measures the total health care spending of each Massachusetts zip code, based on member residence, rather than where members received services. Zip codes are self-reported by members, which may lead to certain inaccuracies, particularly in areas with high student or other transient populations.

TME can be measured on an unadjusted basis, which reflects actual spending but does not consider differences among member populations. TME may also be adjusted to reflect differences in member demographics and health status such as age, gender, and clinical profile. This report presents both unadjusted and health-status adjusted (H.S.A.) TME data.

- Unadjusted TME is the actual payments from a commercial payer and its members to health care providers. Unadjusted TME is presented for aggregated analyses across payers, such as statewide and regional analyses. Unadjusted TME is used for such purposes since payers in these analyses utilized different methods in adjusting for health status, and H.S.A. TME results calculated from different health status adjustment methods cannot be directly compared.
- Health-Status Adjusted TME is the total health care spending for the member population of a payer's membership based on allowed claims for all categories of medical expenses and all non-claims related payments to health care providers, adjusted by health status, and expressed on a PMPM basis. H.S.A. TME is analyzed in order to examine the payer-specific TME growth rate for their member populations. This ensures that each payer's TME accounts for the health status and resource utilization of their member populations when comparing a payer's TME growth rate to the health care cost growth benchmark.
- Health-Status Adjustment score is a value that measures a member's illness burden and predicted resource use based on differences in member characteristics or other risk factors.
- Commercial full-claims data includes both self- and fully-insured commercial business for which claims for all medical services were available to the reporting payer. The data captures complete medical spending and is used to calculate commercial TME.

- Commercial partial-claims data includes self- and fully-insured commercial business where the employer separately contracts for one or more specialized services, such as pharmacy or behavioral health service management. In these cases, the reporting payer does not have access to the claims for the separately contracted services. As the full range of medical expenses is not included in the data reported by the payers, these partial-claims are not included in the TME analyses contained in this report.

The 2013 and 2014 TME data is considered final, with up to 16 months of claims run-out. The 2015 TME data is considered preliminary and includes paid claims available to the payers at the time of the May 2016 submission. However, claims continued to be paid throughout 2016 for services rendered in 2015. In order to report the preliminary 2015 TME data that is complete and comparable to the final 2014 TME, the payers applied completion factors, which include payer estimates for incurred but not reimbursed (IBNR) ratios by type of service to the preliminary 2015 TME data.

The reported payment data, especially the non-claims payments, provided by payers in the preliminary 2015 TME submission could differ materially from the final results. For certain payers taking into account the quality and financial performance of providers, much of the measured quality scores and financial/risk performance for 2014 were not available at the time of the TME submission deadline, which was May 2016. Payers included estimates for the final settlements in the preliminary data. As such, the final 2015 TME reported by some payers could differ from their preliminary 2015 TME.

## Managing Physician Group TME

### Data Source:

Collected annually by CHIA pursuant to M.G.L. c. 12 C, section 8, from both commercial and public payers. Please see Table TA-1 for a list of payers and reported data.

### Data Year:

CYs 2013, 2014 and 2015

### Definition:

Managing physician group TME measures the total health care spending of members whose plans require the selection of a primary care physician associated with a physician group, adjusted for health status. Thus, managing physician group TME reported by each payer contains exclusively managed care member information. The data reported for each physician group include TME for these members, even when care was provided outside of the physician group. Data related to pediatric physician groups were excluded from the physician group TME analyses.<sup>13</sup>

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<sup>13</sup> As defined in 957 CMR 2.00, pediatric physician practice is a physician group practice in which at least 75% of its patients are children up to the age of 18.

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# Alternative Payment Methods (APM)

## Definition:

APMs are payment methods used by a payer to reimburse health care providers that are not solely based on the fee-for-service (FFS) basis. In some APM contracts, financial risk associated with both the occurrence of medical conditions as well as the management of those conditions is shifted from payers to providers to incentivize efficiency and quality of health care delivery.

## Data Year:

CYs 2014 and 2015

## Data Source:

In June of 2016, CHIA collected data on APM from the ten largest commercial payers in the Massachusetts commercial health insurance market, and commercial payers that offered Medicare Advantage plans, MassHealth MCO plans, and Commonwealth Care plans for CYs 2014 and 2015. Please see Table TA-1 for a full list of payers and reported data. The APM data was collected at the member zip code level and the managing physician group level, similar to the TME data. The reported payment information, especially the non-claims payments, could differ from the final payment amounts since quality and financial performance is normally part of the features of alternative payment methods. And these final settlements for quality and financial performance have not been completed at the time of APM data submission deadline, which was June 2016.

The APM data is collected by insurance category, by product type, and by payment method for reporting according to member zip code and managing physician group. The APM data is only collected for Massachusetts residents, as determined by the member's residence on the last day of the reporting year, and for managing physician groups based in Massachusetts. For payment method assignment, payers classified payment methods for physician groups and members based on the payment method allocation hierarchy: (1) global payment; (2) limited budget; (3) bundled payment; (4) other, non-FFS based; and (5) FFS.

In June of 2016, CHIA also collected supplemental data from payers whose members' primary care providers were engaged in global payment contracts for 2015. Data was collected by risk type, carved-out benefits and commercial market segment. Risk type was identified as a payment arrangement that was either shared savings only or that had both upside and downside risk. Payers indicated whether the benefits carved out of the global budget were pharmacy, behavioral health, other or some combination of the three. APM member months were attributed to one of five commercial market segment classifications: Individual, Small Group (Employer group with 1-50 eligible employees), Mid-Size (51-100), Large (101-499) and Jumbo (500 or more).

## Definitions:

Global Payment: Global payments are a type of payment arrangement between payers and providers that establishes a spending target for a comprehensive set of health care services to be delivered to a specified population during a defined time period. Global payment arrangements may shift some financial risk from payers to

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providers. In these cases, if costs exceed the budgeted amounts, providers must absorb those costs, subject to negotiated risk sharing agreements. On the other hand, providers may share in, or retain, the savings if costs are lower than the budgeted amounts and health care quality performance targets are met.

It is important to note that within the framework of a global payment arrangement with a managing physician group, payments to service providers are generally made on a FFS basis. Also, global payments as defined here do not consider the extent of risk, if any, borne by the managing physician group. It is difficult to capture levels of risk, as there is currently no standardized approach to risk classification or reporting.

Limited Budget: Limited budgets, like global payments, represent a move away from FFS-based payments. Limited budgets are payment arrangements whereby payers and providers, either prospectively or retrospectively, agree to pay for a specific set of services to be delivered by a single provider. This could include, for instance, capitated primary care or oncology services. Limited budgets also shift some financial risk from payers to providers.

Bundled Payment: Bundled payments are a method of reimbursing providers, or a group of providers, for providing multiple health care services associated with defined “episodes of care” (e.g. knee surgery, pregnancy and delivery, and etc.) for a patient or set of patients. These payments may include services developed based upon clinical guidelines, severity adjustments to account for the general health status of a patient and comorbidities (other related ailments), and even designated “profit” margins and allowances for potential complications.<sup>14</sup>

Other, non-FFS-based: This category includes all other payment arrangements that are not based on a FFS model, but that also do not easily fit into any of the other categories. This category includes supplemental payments for the Patient Center Medical Home Initiative (PCHMI), for instance.

Fee-for-service (FFS): Under this model, health care providers are reimbursed by payers at negotiated rates for individual services delivered to patients. A variety of FFS payment arrangements exist, including, but not limited to, Diagnosis Related Groups (DRGs), per-diem payments, claim-based payments adjusted by performance measures, and discounted charge-based payments. This category also includes pay-for-performance incentives that accompany FFS payments.

Table TA-1: List of Payers Reporting 2013 - 2014 TME Data and 2014 APM Data

Payer	Data Type
Aetna Health Insurance Company (Aetna)*	Commercial full and partial-claims; Medicare Advantage
Blue Cross Blue Shield of Massachusetts (BCBSMA)*	Commercial full and partial-claims; Medicare Advantage
BMC HealthNet (BMCHP)	Commercial full-claims; MassHealth MCO; Commonwealth Care
CeltiCare Health Plan (CeltiCare)	Commercial full-claims; MassHealth MCO; Commonwealth Care
Connecticut General Life Insurance Company – Medical and Cigna Health and Life Ins. Co. (Cigna-East)	Commercial full-claims
CIGNA Health and Life Insurance Company (CHLIC, or Cigna West)	Commercial full-claims
Fallon Health (Fallon)	Commercial full and partial-claims; MassHealth MCO; Medicare and Medicaid Dual Eligibles, 21 – 64 and 65+; Commonwealth Care; Medicare Advantage
Harvard Pilgrim Health Care (HPHC) <sup>¶</sup>	Commercial full and partial-claims
Health New England (HNE)*	Commercial full-claims; MassHealth MCO; Medicare Advantage
Minuteman Health	Commercial full-claims
Neighborhood Health Plan (NHP)	Commercial full-claims; MassHealth MCO; Commonwealth Care
Tufts Public Plans - Network Health (Network Health)	Commercial full-claims; MassHealth MCO; Medicare and Medicaid Dual Eligibles, 21 – 64; Commonwealth Care
Tufts Health Plan (Tufts HP)	Commercial full and partial-claims; Medicare Advantage
UniCare Health Insurance Company (UniCare) <sup>§</sup>	Commercial partial-claims
United Healthcare Insurance Company (United)*	Commercial full-claims; Medicare Advantage

\*Tufts Public Plans, Aetna, Fallon, Health New England, and United Healthcare reported updated 2013 final TME data to ensure consistent risk adjustment tools were applied across 2013, 2014 and 2015 data.

¶ HPHC's commercial partial-claim population is administered by Health Plans Inc.

§ UniCare does not report physician group TME because it only offers indemnity plans and its members are not required to select primary care physicians.



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