CENTER FOR HEALTH
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ANNUAL REPORT ON THE PERFORMANCE OF THE MASSACHUSETTS HEALTH CARE SYSTEM

TECHNICAL APPENDIX

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ANNUAL REPORT ON THE PERFORMANCE OF THE MASSSACHUSETTS HEALTH CARE SYSTEM: SEPTEMBER 2014

TECHNICAL APPENDIX

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Total Health Care Expenditures (THCE)

[Metric related to Supplements 1, 4, 7, 8, 9]

CHIA's approach to the THCE calculation aims to support its intended uses: analysis of state-level expenditures and the annual growth rate, as well as to support 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.

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.[1]

Data Year: Calendar years (CY) 2012 and 2013

Data Source:

[1] Defined in M.G.L. c. 12C, Section 1.

THCE Category	Data Source
Commercially Insured Expenditures	
Commercial Full-Claim	Reported by commercial payers to CHIA
Commercial Partial-Claim	Reported by commercial payers to CHIA
Non-TME Filers	Actuarial estimation from CMS* MLR reporting data by commercial payers with Massachusetts contracts
Public Coverage Expenditures	
MassHealth MCOs	Reported by commercial payers to CHIA
Commonwealth Care MCOs	Reported by commercial payers to CHIA
MassHealth Dually Eligible Programs	Reported by commercial payers to CHIA
MassHealth (PCC, FFS, PACE, SCO, and Other)	Reported by MassHealth
Medicare Advantage	Reported by commercial payers to CHIA
Medicare Parts A and B	CMS data summary to CHIA
Medicare Part D	CMS data summary to CHIA
Health Safety Net	Office of Health Safety Net
Medical Security Program**	Reported by commercial payers to CHIA
Veteran Affairs	National Center for Veteran Analysis and Statistics (FYs 2012 and 2013)
Net Cost of Private Health Insurance	Calculated from the Medical Loss Ratio Reports from the Massachusetts Division of Insurance (DOI), the Annual Statutory Financial Statement from the National Association of Insurance Commissioners (NAIC), and the Medical Loss Ratio Reports from the Center for Consumer Information and Insurance Oversight (CCIIO)
Massachusetts population	U.S. Census Bureau

Notes:

* CMS is the federal Centers for Medicare and Medicaid Services.

** In CHIA's THCE Methodology Paper, the data source for the MSP was from the Department of Unemployment Assistance. In this report, the MSP data was sourced from the payers who managed the MSP as part of their annual TME data submissions.

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 calculation of THCE. In recognition of this use of estimated data, this report includes an initial assessment for the performance year. A final assessment for THCE growth between CYs 2012 and 2013 will be released 12 months after the initial assessment and will be a refined version of the model, incorporating up to 16 months of claims run-out and settlements. The final assessment will contain the same elements as the initial assessment, but will serve to update the findings.

The initial assessment for CYs 2012 and 2013 presented in this report 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.

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.[2] 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.[3] 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 2012 and 2013 spending, the Medical Loss Ratio (MLR) reports filed with the federal Center for Consumer Information and Insurance Oversight (CCIIO) were used. 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 charges that were non-Massachusetts

[2] Please see CHIA's regulation 957 CMR 2.00 for the submission requirements of TME data.

[3] 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.

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.

Data for MassHealth MCO, Commonwealth Care MCO and Medicare Advantage plans was obtained from TME data filed by commercial payers with CHIA. 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.[4]

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[5]; (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 December 2013 publication *Massachusetts Total Health Care Expenditure Methodology*.[6]

Health Care Cost Growth Benchmark

[Metric related to Supplements 1, 4, 7. 8, 9]

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 2013 at 3.6%. Subsequently, the HPC established the health care cost growth benchmark for 2013 at 3.6%.

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[4] Spending Information from Veterans Affairs is available at http://www.va.gov/vetdata/Expenditures.asp (Accessed August 29, 2014).

[5] 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.

[6] Center for Health Information and Analysis (December 2013). *Massachusetts Total Health Care Expenditure Methodology*. Available at: http://www.mass.gov/chia/docs/r/pubs/13/thce-methodology.pdf (Accessed August 29, 2014).

Contract-Membership, Commercial Premiums, Consumer Cost Sharing, and Benefit Levels

[Metric related to Supplements 2 - 3]

CHIA received contract-membership, commercial premiums, consumer cost sharing, and benefit level data for 2011, 2012, and 2013 from affiliates of the following eight (8) payers:

- Blue Cross Blue Shield of Massachusetts
- CIGNA
- Fallon Health
- Harvard Pilgrim Health Care (including Health Plans, Inc.)
- Health New England
- Neighborhood Health Plan
- Tufts Health Plan
- WellPoint (formerly UniCare)

Payer data was provided in response to an Oliver Wyman data request ("2014 Annual Premiums Data Request") that was reviewed by CHIA and forwarded to the participating payers. This request provided detailed definitions and specifications for requested membership, premiums, claims, and other pricing data; it requested payers provide data on their commercial medical products for all group sizes, including the Individual and Small Group segments of the Merged Market. Products that were specifically excluded from this study were: Medicare Advantage, Commonwealth Care, Medicaid, Medicare supplement, Federal Employee Health Benefit Program (FEHBP), and non-medical (e.g., dental) lines of business.

CHIA requested membership data from payers' fully- and self-insured business, as contracted in Massachusetts. Reported members may, however, reside inside or outside of Massachusetts; out-of-state members are most often covered by an employer that is located in Massachusetts. These out-of-state "contract" members were included in all sections of this report related to premium trends. Premium equivalent and claim information were not requested for self-funded business.

Payer-provided data were supplemented with reported financial data from the Supplemental Health Care Exhibit, CCIIO MLR Reporting,[7] and the Massachusetts Annual Comprehensive Financial Statement. These resources were also used in data validation.[8]

Payers provided their fully-insured annual premiums and claims by market sector, managed care type, and product type for 2011 through 2013. Payers also provided their rating factors used in the fourth quarter 2013. Member month information by age, gender, area, group size (fully-insured only), market sector, managed care type, and product type was also provided for both fully-insured and self-insured.

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[7] The Affordable Care Act requires health insurance companies to report the percentage of premium revenue that they spend on medical claims—their MLRs—to CCIIO, which publishes the data on its website, available at: http://www.cms.gov/CCIIO/Resources/Data-Resources/mlr.html (Accessed August 29, 2014).

[8] The analysis in this report relies on premium, claims, and membership data submitted by major Massachusetts payers. These data were reviewed for reasonableness, but they were not audited. When reported data were not consistent, revised data was requested and provided by the payers. To the extent final data were unknowingly incomplete or inaccurate, findings may be compromised.

Using the annual premiums and aggregate annual member months, Oliver Wyman calculated unadjusted premiums PMPM.

To calculate "adjusted premiums", unadjusted premiums were recalculated to account for membership differences in age, gender, area, group size, and benefits. Adjustments were performed by first adjusting the rating factors to make each payer's factors relative to a common demographic. Age/gender factors were relative to a 35-year-old female, size factors were relative to a group of 51+ enrollees, and area factors were relative to Boston. A member weighted average adjusted factor was calculated for each calendar year. Finally, the unadjusted premiums were divided by the average rating factors to develop expected premiums PMPM, adjusted to the demographics represented by a 1.0 factor.

It is possible that using the fourth quarter 2013 factors for all periods in the study had a slight impact on resulting adjusted premium trends. However, it was determined that it was not feasible to request factors for each quarter. Furthermore, the factors are applied based upon effective date of issue or renewal which was not feasible to model in this analysis. It is not anticipated to materially skew adjusted premium results.

Note that for this analysis, rating factors applied to Mid-Size, Large, and Jumbo groups reflected a premium based on a manual rate and not on the group's own experience. In the market, actual premiums would be based on a combination of the manual rate and an experience rate with the proportion of each depending on the group's size. The largest groups are typically rated based entirely on their own experience. Therefore, this analysis makes the assumption that actual experience will follow the claim pattern assumed in the manual rating factors. Actual premiums may differ. This approach is not anticipated to have a material impact on results. Rather, it is anticipated that the manual rate would be determined consistent with the overall average experience of the covered groups.

Adjusting the premiums for benefits required a separate analysis from the rating factor adjustments. Benefit levels are measured by Actuarial Values (AV), a measure of the proportion of expenditures covered by insurance versus patient cost-sharing, which can be calculated by several different methods to produce similar results. For the "adjusted premiums" analysis, Oliver Wyman's proprietary pricing model was used to estimate the AVs. To adjust for benefit levels, first, the detailed product descriptions provided for the Individual and Small group markets were priced using the proprietary pricing model, with results summarized by payer, market sector, and year, and compared to the ratio of paid claims to allowed claims based on the data provided by the payers. The model was calibrated using this comparison. The calibrated pricing model was then used to estimate the AV of benefits based on a given reported paid-to-allowed claims ratio. The unadjusted premiums were divided by the estimated AVs to determine the premiums adjusted for benefits. An AV of 1.0 represented a plan where 100% of the claims' costs are paid for by the plan. Given the limitations of the data available, this analysis did not include limited network impact in the AV.

The "benefit level" calculation presented throughout the remainder of the Report represent actuarial values calibrated to the paid/allowed ratio for the total market in 2011. This calculation method differs from CHIA's 2013 Annual Report on the Massachusetts Health Care Market, though trends remain consistent. This method has been used on previous years' data to depict an overall market estimated 5-year trend, 2009-2013. Market level AVs have also been normalized to 1.0 for display purposes.

Total Medical Expenses (TME)

[Metric related to Supplements 4, 7, 8, 9]

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 2012 and 2013

Definitions: TME is defined as the total medical spending for a member population based on allowed claims 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 2012 data is considered final TME, with at least 14 months of claims run-out period. The reported 2013 TME data is considered preliminary and includes paid claims available to the payers at the time for the May 2014 submission. However, claims continued to be paid throughout 2014 for services rendered in 2013. In order to report the preliminary 2013 TME data that is complete and comparable to the final 2012 TME, the payers applied

completion factors, which include payer estimates for incurred but not reimbursed (IBNR) ratios by type of service to the preliminary 2013 TME data.

The reported payment data, especially the non-claims payments, provided by payers in the preliminary 2013 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 2013 were not available at the time of the TME submission deadline, which was May 1st 2014. Payers included estimates for the final settlements in the preliminary data. As such, the final 2013 TME reported by some payers could differ from their preliminary 2013 TME.

List of Payers Reporting 2012-2013 TME Data and 2013 APM Data

Payer	Data Type
Aetna Health Insurance Company (Aetna)	Commercial full and partial-claims; Medicare Advantage
Blue Cross Blue Shield of Massachusetts (BCBS)	Commercial full and partial-claims; Medicare Advantage
BMC HealthNet (BMC)*	Commercial full-claims (2013); MassHealth MCO; Commonwealth Care
CeltiCare Health Plan (CeltiCare)	Commercial full-claims; Commonwealth Care; Medical Security Program (2012)
Connecticut General Life Insurance Company (CIGNA)	Commercial full-claims
Fallon Health (Fallon)†	Commercial full and partial-claims; MassHealth MCO; MassHealth Dual 21-64 and 65+ (2013); Commonwealth Care; Medicare Advantage
Harvard Pilgrim Health Care (HPHC)¶	Commercial full and partial-claims
Health New England (HNE)	Commercial full-claims; MassHealth MCO; Medicare Advantage
MassHealth	MassHealth Primary Care Clinician (PCC) Plan
Neighborhood Health Plan (NHP)	Commercial full-claims; MassHealth MCO
Network Health (Network Health)*†	Commercial full-claims (2013); MassHealth MCO; MassHealth Dual 21-64 (2013); Commonwealth Care; Medical Security Program
Tufts Health Plan (Tufts)	Commercial full and partial-claims; Medicare Advantage
UniCare Health Insurance Company (UniCare)§	Commercial partial-claims
United Healthcare Insurance Company (United)	Commercial full-claims; Medicare Advantage

* BMC and Network Health began reporting commercial full-claim TME and APM data for calendar year 2013 to CHIA in May 2014.

† Fallon and Network Health started to report the "One Care" managed care plans for individuals between ages 21 and 64 that are dually eligible for MassHealth and Medicare, which began in October 2013. Fallon also separately reported a managed care plan for the age 65+ dual eligible population for CYs 2012 and 2013.

¶ 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.

Managing Physician Group TME

[Metric related to Supplement 5]

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 2012 and 2013

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.[9]

Managing Physician Group Quality

[Metric related to Supplement 5]

Metrics: Healthcare Effectiveness Data and Information Set (HEDIS)

Set	Measure Name and ID	Description	Measure Steward & Data Source	Measure start date	Measure end date
HEDIS Women's Health	Breast Cancer Screening	This measure looks at women between 40 to 69 years of age. It shows the percent of those patients who had a mammogram at least once in the past two years.	AHRQ; Claims and clinical records	1/1/2012	12/31/2012
HEDIS Women's Health	Cervical Cancer Screening	This measure looks at women who are between 21 and 64 years old. It shows the percent of those patients who had a Pap test at least once in the past three years.	AHRQ; Claims and clinical records	1/1/2012	12/31/2012
HEDIS Diabetes Care	Comprehensive Diabetes Care - HbA1c Testing	This measure looks at adult patients, age 18-75, who have Type 1 or Type 2 diabetes. It shows the percent of those patients who had at least one Hemoglobin A1c (HbA1c) blood test during the past year.	AHRQ; Claims and clinical records	1/1/2012	12/31/2012

[9] 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.

Set	Measure Name and ID	Description	Measure Steward & Data Source	Measure start date	Measure end date
HEDIS Diabetes Care	Comprehensive Diabetes Care - LDL-C Screening	This measure looks at adult patients, age 18-75, who have Type 1 or Type 2 diabetes. It shows the percent of those patients who had a serum cholesterol level (LDL-C) screening test during the past year.	AHRQ; Claims and clinical records	1/1/2012	12/31/2012
HEDIS Diabetes Care	Comprehensive Diabetes Care - Medical Attention for Nephropathy		AHRQ; Claims and clinical records	1/1/2012	12/31/2012
HEDIS Adult Diagnostic and Preventative Care	Colorectal Cancer Screening	This measure looks at adult patients (ages 50 to 75), who have had screening for colorectal cancer. This screening is done using one of three tests: colonoscopy, fecal occult blood test (FOBT), or flexible sigmoidoscopy.	AHRQ; Claims and clinical records	1/1/2012	12/31/2012
HEDIS Adult Diagnostic and Preventative Care	Use of Imaging Studies for Low Back Pain	This measure looks at the percent of adult patients (18 to 50 years old) who get imaging tests within 28 days after being diagnosed with lower back pain. Imaging tests include X-rays, MRIs, and CT-scans. A higher score means that more patients did not get imaging tests during this time – which is good.	AHRQ; Claims and clinical records	1/1/2012	12/31/2012
HEDIS Appropriate Use of Medications in Adults	Annual Monitoring for Patients on Persistent Medications - Total rate	The percentage of members 18 years of age and older who received at least 180 treatment days of anticonvulsants during the measurement year and had at least one drug serum concentration level monitoring test for the prescribed drug in the measurement year.	AHRQ; Claims and clinical records	1/1/2012	12/31/2012
HEDIS Antidepressant Medication Management	Antidepressant Medication Management - Effective Continuation Phase Treatment	The percentage of members 18 years of age and older who received at least 180 treatment days of anticonvulsants during the measurement year and had at least one drug serum concentration level monitoring test for the prescribed drug in the measurement year.	AHRQ; Claims and clinical records	1/1/2012	12/31/2012

Set	Measure Name and ID	Description	Measure Steward & Data Source	Measure start date	Measure end date
HEDIS Women's Health	Chlamydia Screening in Women Ages 21 to 24	This measure looks at women 21 to 24 years of age who are sexually active (having sex). It shows the percent of those patients who had a chlamydia screening test during the past year.	AHRQ; Claims and clinical records	1/1/2012	12/31/2012
HEDIS Appropriate Use of Medications in Adults	Annual Monitoring for Patients on Persistent Medications - ACE Inhibitors or ARBs	This measure shows the percent of all patients, age 18 or older, who are on long-term ACE (angiotensin converting enzyme) inhibitors or ARBs (angiotensin receptor blockers) for at least six months, and have had at least one lab test in the past year to monitor (check) if the medication is having any unwanted side effects. This measure looks at how often doctors follow up with patients who take either of these types of medications, which are used to treat heart disease, kidney disease, and high blood pressure.	AHRQ; Claims and clinical records	1/1/2012	12/31/2012
HEDIS Cardiovascular Disease and Cholesterol Management	Cholesterol Management for Patients with Cardiovascular Conditions--LDL-C Screening	This measure looks at adult patients, age 18-75, who have Type 1 or Type 2 diabetes. It shows the percent of those patients who had a serum cholesterol level (LDL-C) screening test during the past year.	AHRQ; Claims and clinical records	1/1/2012	12/31/2012

CHIA Data Source: Massachusetts Health Quality Partners (MHQP), 2012 Clinical Quality Data

All performance results in the Annual Report were received from MHQP as pre-calculated percentages. The HEDIS measures reported are based on data available from MHQP.

These measures reflect the care provided to adult, commercially insured members from the five largest commercial carriers: BCBS, Fallon, HPHC, HNE and Tufts. This sample represents approximately 80% of the commercial population.

Managing Provider Groups measured are those serving the five carriers' commercial members. These groups are: Atrius Health, Inc., Baycare Health Partners, Beth Israel Deaconess Care Organization LLC, Lahey Hospital and Medical Center, New England Quality Care Alliance, Partners Community Health Care, Steward Health Care Network, and UMass Memorial Health Care, Inc.

Metrics: Consumer Assessment of Healthcare Providers and Systems – Patient Centered Medical Homes (CAHPS - PCMH)

Set	Measure Name and ID	Description	Measure Steward & Data Source	Measure start date	Measure end date
Patient Experience Survey	Organizational Access	The percentage of patients who responded to the CAHPS-PCMH survey who were satisfied with their ability to get timely appointments, care, and information.	AHRQ; Patient Reported Data/Survey	1/1/2013	12/31/2013
Patient Experience Survey	Office Staff	The percentage of patients who responded to the CAHPS-PCMH survey who were satisfied that they received quality care from staff in the doctors' office.	AHRQ; Patient Reported Data/Survey	1/1/2013	12/31/2013
Patient Experience Survey	Integration of Care	The percentage of patients who responded to the CAHPS-PCMH survey who were satisfied with how well doctors coordinate care.	AHRQ; Patient Reported Data/Survey	1/1/2013	12/31/2013
Patient Experience Survey	Communication	The percentage of patients who responded to the CAHPS-PCMH survey who were satisfied with how well doctors communicate with patients.	AHRQ; Patient Reported Data/Survey	1/1/2013	12/31/2013
Patient Experience Survey	Knowledge of Patient	The percentage of patients who responded to the CAHPS-PCMH survey who were satisfied with how well doctors know their patients.	AHRQ; Patient Reported Data/Survey	1/1/2013	12/31/2013
Patient Experience Survey	Willingness to Recommend	Percent of patients who responded to the CAHPS-PCMH survey and reported YES, they would definitely recommend their doctor to family and friends.	AHRQ; Patient Reported Data/Survey	1/1/2013	12/31/2013

CHIA Data Source: Massachusetts Health Quality Partners (MHQP), 2013 Patient Experience Survey

All performance results in the Annual Report were received from MHQP as pre-calculated scores ranging from 0 to 100.

These measures reflect the experience of adult, commercially insured members from the five largest commercial carriers: BCBS, Fallon, HPHC, HNE and Tufts. This sample represents approximately 80% of the commercial population. Pediatric patient experiences were excluded.

Managing Provider Groups measured are those serving the five carriers' commercial members. These groups are: Atrius Health, Inc., Baycare Health Partners, Beth Israel Deaconess Care Organization LLC, Lahey Hospital and Medical Center, New England Quality Care Alliance, Partners Community Health Care, Steward Health Care Network, and UMass Memorial Health Care, Inc.

Payer Retention, Retention Decompositions, Medical Loss Ratios, and Rebates

[Metric related to Supplement 6]

Payer retention is the difference between the total premiums collected by payers and the total spent on incurred medical claims. Total retention amounts were based on premium and claims data reported by payers in the "2014 Annual Premiums Data Request".

Findings related to retention breakdown into its components (retention decomposition) are based on CCIIO MLR Reporting Data from 2011, 2012, and 2013.

Paid rebate information was based on premium data provided by the payers. The payer-reported rebates were compared to Massachusetts MLR Reports filed with the Division of Insurance and were found to be consistent with the approved amounts. Where payer reported rebate information differed from the amounts reported to CCIIO, the profit as reported to CCIIO was adjusted such that the total retention was unchanged. Retention findings are for the fully-insured market and are based on Massachusetts residents and out-of-state residents that are covered under Massachusetts contracts.

While actuarial values (AV) estimate how much an average member can expect a plan to cover of his/her covered medical expenses, Medical Loss Ratios (MLR) represent the proportion of a plan's total collected premium spent by that plan on covering member medical claims.[10] A plan may have a high MLR but a low AV if its administrative costs for a plan are particularly low, and the plan only covers a minimal amount of the member's expected medical expenses.

Market Concentration/ Enrollment Trends Methodology

[Metric related to Supplement 10]

Payer Membership Concentration

CHIA received September 2013 commercial enrollment data from fifteen (15) Massachusetts payers:

- Aetna
- Blue Cross Blue Shield of MA
- Boston Medical Center HealthNet
- CeltiCare Health Plan of Massachusetts
- CIGNA
- ConnectiCare
- Fallon Health
- Harvard Pilgrim Health Care (including Health Plans, Inc.)
- Health New England
- Minuteman Health
- Neighborhood Health Plan

[10] MLRs used for rebate calculations also account for quality improvement and fraud detection expenses to adjust claims, and taxes and fees to adjust premiums.

- Network Health
- Tufts Health Plan
- United Healthcare
- WellPoint (formerly UniCare)

Membership totals included all Massachusetts residents enrolled with primary, medical coverage within commercial fully-insured or self-insured products within all payer-affiliated carriers or administrators, including membership within: Qualified Health Plans procured inside and outside of the Massachusetts Health Connector, Commonwealth Care, Commonwealth Choice, Federal Employee Health Benefit Plans, Group Insurance Commission plans, the Medical Security Program, and Student Health Insurance Plans. Where possible, payers were asked to include host membership, members contracted out of state but residing in Massachusetts. Membership in joint-ventures between plans is reported by the primary administrator.

From payer-reported data, Commonwealth Care and Medical Security Program totals, as provided by the Massachusetts Health Connector, were then subtracted to more accurately present commercial and public coverage totals and trends. The membership of HPHC's and United Healthcare's Joint Venture, Compass, is reported within HPHC's total in its entirety through December 2013, though not all members were Massachusetts residents; this may result in a small overstatement of HPHC enrollment.

Market concentrations were calculated based on the market only as reported by these sixteen payers.

Alternative Payment Methods (APM)

[Metric related to Supplement 11]

Definition: APMs are payment methods used by a payer to reimburse heath care providers that are not solely based on the fee-for-service (FFS) basis.

Data Year: CYs 2012 and 2013

Data Source: In May 2014, 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 CY 2013. 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 May 15th, 2014.[11]

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.[12]

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 providers. In these cases, if costs exceed the budgeted amounts, providers must absorb those costs, subject to negotiated risk sharing agreements.[13] 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.[14]

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.[15]

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.

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