

COMMONWEALTH OF MASSACHUSETTS
HEALTH POLICY COMMISSION



TECHNICAL APPENDIX C
DATA SOURCES

ADDENDUM TO 2014 COST TRENDS REPORT

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1 Summary

This technical appendix lays out the data sources used by the Health Policy Commission (HPC) in its 2014 Cost Trends Report.

2 Agency for Healthcare Research and Quality

2.1 Nationwide Inpatient Sample (NIS)

Organization: Agency for Healthcare Research and Quality (Healthcare Cost and Utilization Project)

Year(s) of data used: 2011

Description of data: The Healthcare Cost and Utilization Project (HCUP) is a family of databases and related software tools and products developed through a Federal-State-Industry partnership and sponsored by AHRQ. HCUP databases are derived from administrative data and contain encounter-level, clinical and nonclinical information including all-listed diagnoses and procedures, discharge status, patient demographics, and charges for all patients, regardless of payer (e.g., Medicare, Medicaid, private insurance, uninsured). The HCUP databases are based on the data collection efforts of organizations in participating States that maintain statewide data systems and are Partners with AHRQ. The Nationwide Inpatient Sample (NIS) is the largest publicly available all-payer hospital inpatient care database in the United States. Researchers and policymakers use NIS data to identify, track, and analyze trends in health care utilization, access, charges, quality, and outcomes.

Available from: <http://www.hcup-us.ahrq.gov/nisoverview.jsp>

3 Center for Disease Control

3.1 Behavioral Risk Factor Surveillance System

Organization: Center for Disease Control and Prevention/Massachusetts Department of Public Health

Year(s) of data used: 2012-2013

Description of data: The Behavioral Risk Factor Surveillance System (BRFSS) is a system of health-related telephone surveys that collect state data about U.S. residents regarding their health-related risk behaviors, chronic health conditions, and use of preventive services. BRFSS collects data in all 50 states as well as the District of Columbia and three U.S. territories. With technical and methodological assistance from Centers for Disease Control (CDC), state health departments use in-house interviewers or contract with telephone call centers or universities to administer the BRFSS surveys continuously through the year. States use a standardized core

questionnaire, optional modules, and state-added questions. The survey is conducted using Random Digit Dialing (RDD) techniques on both landlines and cell phones.

Available from: <http://apps.nccd.cdc.gov/brfss/index.asp>

4 Centers for Medicare & Medicaid Services

4.1 National Health Expenditures Accounts

Organization: Centers for Medicare & Medicaid Services

Year(s) of data used: 2009-2013

Description of data: The National Health Expenditures Accounts aim to quantify the complete set of health expenditures in the U.S. in a comprehensive, multidimensional, and consistent way. Health spending is measured in a comprehensive yet mutually exclusive structure to allow accounting for the full set of spending, for example, by payer and/or by service category. The data presented in this report as health expenditures derive primarily from the subset called Health Consumption Expenditures (which include some health spending such as public health and research spending) and from the further subset of those expenditures that are paid for via private health insurance. The sources CMS uses to build this dataset include the U.S. Census Bureau, the American Medical Association, the American Hospital Association and IMS as well as household data from surveys such as the National Medical Care Expenditure Survey (National Center for Health Services Research, 1987) and later, the Medical Expenditure Panel Survey-Household Component (Agency for Healthcare Research and Quality, 1996-2006 and 2009-2012).

More information on the data source is available from <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/downloads/dsm-12.pdf>

Available from: <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/index.html?redirect=/NationalHealthExpendData/>

4.2 Medicare Shared Savings Program Accountable Care Organizations Performance Year 1 Results

Organization: Centers for Medicare & Medicaid Services

Year(s) of data used: 2012-2013

This dataset presents data on Performance Year 1 final financial reconciliation and quality performance results for ACOs with 2012 and 2013 agreement start dates. Performance year 1 is a 21- or 18-month period for ACOs with 2012 start dates, and a 12 month period for ACOs with 2013 start dates. ACOs that generated savings earned a performance payment if they met the quality standard. For the first Performance Year, CMS defined the quality performance standard

as complete and accurate reporting for all quality measures. Quality performance for Performance Year 1 reconciliation for ACOs with 2012 start dates is based on complete and accurate reporting of all required quality measures for Calendar Years 2012 and 2013. Quality performance for Performance Year 1 reconciliation for ACOs with 2013 start dates is based on complete and accurate reporting of all required quality measures for Calendar Year 2013

Available from: <https://data.cms.gov/ACO/Medicare-Shared-Savings-Program-Accountable-Care-O/yuq5-65xt>

4.3 Hospital Compare

Organizations: Center for Medicare and Medicaid Services

Year(s) of data used: 2013

Hospital Compare is part of the Centers for Medicare & Medicaid Services (CMS) Hospital Quality Initiative. The Hospital Quality Initiative uses a variety of tools to help stimulate and support improvements in the quality of care delivered by hospitals. The intent is to help improve hospitals' quality of care by distributing objective, easy to understand data on hospital performance, and quality information from consumer perspectives.

Available from: <http://www.medicare.gov/hospitalcompare/search.html>

4.4 Standard Analytic File (5% Sample)

Organizations: Center for Medicare and Medicaid Services

Year(s) of data used: 2012

The Standard Analytic File is CMS' Medicare claims for inpatient, outpatient, home health, hospice, skilled nursing facility, with any patient level identifying information stripped. The five percent sample limits the total number of claims to five percent, so that it can be used as a national comparator.

Available from: <http://www.medicare.gov/hospitalcompare/search.html>

5 Center for Health Information and Analysis

5.1 Total Medical Expenses

Organization: Center for Health Information and Analysis

Year(s) of data used: 2009 - 2012

Description of data: Total Medical Expenses (TME) represents the full amount paid to providers for health care services delivered to a payer's covered enrollee population (payer and enrollee cost-sharing payments combined). TME covers all categories of medical expenses and all non-

claims related payments to providers, including provider performance payments. On an annual basis, the 10 largest commercial payers file TME reports with the Center for Health Information and Analysis (CHIA).

Available from: <http://www.mass.gov/chia/researcher/chia-publications.html>

5.2 All-Payers Claims Database

Organization: Center for Health Information and Analysis

Year(s) of data used: 2010 - 2012

Description of data: The Massachusetts All-Payer Claims Database (APCD) is an essential resource with which researchers can examine health care spending and the evolution of health care and health insurance markets. The APCD contains medical, pharmacy, and dental claims from all payers that insure Massachusetts residents, as well as information about member, insurance product, and provider characteristics. It does not include payments that occur outside of the claims system, such as supplemental payments related to quality incentives or alternative payment methods, nor does it include self-pay spending that consumers incur outside of their insurance coverage.

The HPC used an analytic data set that consisted of claims for the state's Medicare Fee-For-Service and three largest commercial payers – Blue Cross Blue Shield of Massachusetts (BCBS), Harvard Pilgrim Health Care (HPHC), and Tufts Health Plan (THP) – who represent 80 percent of the commercial market. Medicare claims analyses do not include expenditures by Medicare Advantage plans. Our analyses incorporated claims-based medical expenditures for Medicare and commercial payers, but not pharmacy spending, payments made outside the claims system, or MassHealth spending. Examination of APCD data from MassHealth is ongoing, and MassHealth claims analyses will be included in future work by the Commission.

Available from: <http://www.mass.gov/chia/researcher/hcf-data-resources/apcd/>

5.3 Alternative Payment Methods Baseline Report (data appendix 1 & 2)

Organization: Center for Health Information and Analysis

Year(s) of data used: 2012

CHIA's baseline report on alternative payment methods (APMs) and its data appendix examines the extent of their use in the Massachusetts commercial market. The report also describes the prevalence of APMs among the various insurance products, between Massachusetts regions, and within physician groups in Massachusetts that manage the members' care. CHIA will continue to monitor and report on the use of APMs in Massachusetts in future reports.

Available from: <http://chiamass.gov/alternative-payment-methods-2>

5.4 Annual Report on the Performance of the Massachusetts Healthcare System, 2014 (Databook 1, 3, 5)

Organization: Center for Health Information and Analysis

Year(s) of data used: 2013

CHIA's 2014 annual report on the performance of the healthcare system examines APM coverage in the Massachusetts commercial market, compares 2012 and 2013 coverage rates, and examines types of alternative payment methods in use.

Available from:

Databook 1: <http://www.mass.gov/chia/docs/r/pubs/14/chia-annual-report-2014-appendix-1-total-health-care-expenditures.xlsx>

Databook 3: <http://chiamass.gov/alternative-payment-methods-2>

Databook 5: <http://www.mass.gov/chia/docs/r/pubs/14/chia-annual-report-2014-coverage-and-costs-databook.xlsx>

5.5 Annual Report on the Massachusetts Health Care System, 2014

Organization: Center for Health Information and Analysis

Year(s) of data used: 2014

Description of Data: In 2012, the Massachusetts Legislature passed Chapter 224 of the Acts of 2012 (Chapter 224), An Act improving the Quality of Health Care and Reducing Costs Through Increased Transparency, Efficiency and Innovation. Chapter 224 created the Center for Health Information and Analysis (CHIA) to monitor the Massachusetts health care system and to provide information to support improvements in quality, affordability, access, and outcomes. In this Annual Report and in other reports in the Health System Performance series, CHIA provides statistics and analysis to support these goals.

Available from:

Annual Report: <http://chiamass.gov/assets/docs/r/pubs/14/chia-annual-report-2014.pdf>

Annual Report Supplement: (<http://www.mass.gov/chia/docs/r/pubs/14/chia-annual-report-2014-supplement-10-commercial-coverage.pdf>);

5.6 HCF-1 cost reports

Organization: Center for Health Information and Analysis

Year(s) of data used: 2011

CHIA uses the information submitted on the HCF-1 form as the basis for computing per diem rates of payment for Nursing Facilities that care for publicly-aided patients. In addition, CHIA uses this data for informational purposes to support public policy initiatives. All Nursing Facilities that provide care to publicly-aided patients must file form HCF-1 on the accrual basis. These reports comprise balance sheets and income statements that accurately reflect the complete financial condition of the facility, realty trust, management company or other reporting entity and also show total allowable expenses. The report also provides a vehicle to claim allowable fixed costs and costs that were generated through the entities that report on the forms HCF-2-NH (realty company report) and HCF-3 (management and/or central office report).

Available from: <http://www.mass.gov/chia/researcher/hcf-data-resources/long-term-care-databases.html>

5.7 Emergency Department Database

Organization: Center for Health Information and Analysis

Year(s) of data used: 2010, 2012

The data for this report include all emergency department visits, including Satellite Emergency Facility visits, by patients whose visits resulted in neither an outpatient observation stay nor an inpatient admission at the reporting facility. These data provide visit level information for patients who present at the ED and who are discharged as outpatients within 24 hours. The study utilizes data from all Massachusetts residents who visited an acute hospital Emergency Department site from the fiscal year 2010 to the fiscal year 2012. The study population includes patients who presented at the ED and were discharged as outpatient within 24 hours between October 1, 2009 and September 30, 2012. This data is submitted by hospitals to The Center for Health Information and Analysis. The unit of analysis is the emergency department visit rather than the patient; therefore, multiple ED visits per patient are counted individually. The ED data contain information on patient characteristics (age, race/ethnicity, and gender), the hospital that provided the services, charges, procedures and diagnoses. Patients' income, educational status, or other socioeconomic information was not available in the dataset.

Available from: <http://www.chiamass.gov/emergency-department-data-documentation-manuals/>

6 Health Policy Commission

6.1 Material Change Notices

Organizations: Health Policy Commission

Year(s) of data used: 2013-2014

Chapter 224 of the Acts of 2012, "An Act Improving the Quality of Health Care and Reducing Costs through Increased Transparency, Efficiency, and Innovation," directs the HPC, in part, to

monitor the Massachusetts health care system by requiring health care providers and provider organizations to notify the HPC before making material changes to their operations or governance structure. Pursuant to M.G.L. c. 6D, § 13, the HPC now tracks the frequency, type, and nature of changes in the health care marketplace.

Material Changes are defined as the following types of proposed changes involving a Provider or Provider Organization:

- (1) A Merger or affiliation with, or Acquisition of or by, a Carrier;
- (2) A Merger with or Acquisition of or by a Hospital or hospital system;
- (3) Any other Acquisition, Merger, or affiliation (such as a Corporate Affiliation, Contracting Affiliation, or employment of Health Care Professionals) of, by, or with another Provider, Providers (such as multiple Health Care Professionals from the same Provider or Provider Organization), or Provider Organization that would result in an increase in annual Net Patient Service Revenue of the Provider or Provider Organization of ten million dollars or more, or in the Provider or Provider Organization having a near-majority of market share in a given service or region;
- (4) Any Clinical Affiliation between two or more Providers or Provider Organizations that each had annual Net Patient Service Revenue of \$25 million or more in the preceding fiscal year; provided that this shall not include a Clinical Affiliation solely for the purpose of collaborating on clinical trials or graduate medical education programs; and
- (5) Any formation of a partnership, joint venture, accountable care organization, parent corporation, management services organization, or other organization created for administering contracts with Carriers or third-party administrators or current or future contracting on behalf of one or more Providers or Provider Organizations.

Available from: <http://www.mass.gov/anf/budget-taxes-and-procurement/oversight-agencies/health-policy-commission/material-change-notice-cost-and-market-impact-reviews/>

6.2 Massachusetts' 2014 Cost Trends Hearing

Organizations: Health Policy Commission, Attorney General and the Center for Health Information and Analysis

Year(s) of data used: 2010-2014

As part of Massachusetts government's commitment to health care cost containment, annual cost trend hearings have been held since 2010. The hearing will examine health care provider, provider organization and private and public health care payer costs, prices and cost trends, with particular attention to factors that contribute to cost growth within the Commonwealth's health care system. Prior to these public hearings, a sample of payers and providers are identified from

across Massachusetts to submit written testimony in response to questions from the Attorney General Office (AGO), the Center for Health Information and Analysis (CHIA) and beginning in 2013, the Health Policy Commission (HPC). At these hearing, public agencies and industry experts also asked to present on the focus areas within the health care sector.

Available from:

Pre-filed testimony: <http://www.mass.gov/anf/budget-taxes-and-procurement/oversight-agencies/health-policy-commission/annual-cost-trends-hearing/2014/testimony/>

Cost Trends Hearing AGO presentation: <http://www.mass.gov/anf/budget-taxes-and-procurement/oversight-agencies/health-policy-commission/annual-cost-trends-hearing/2014/proceedings-and-presentations/office-of-the-attorney-general.pdf>

7 Henry J. Kaiser Family Foundation State Health Facts

Organization: The Henry J. Kaiser Family Foundation

Year(s) of data used: 2009 - 2013

Description of data: State Health Facts is a project of the Henry J. Kaiser Family Foundation (KFF) and provides open access to current and easy-to-use health data for all 50 states, the District of Columbia, and the United States; as well as counties, territories, and other geographies. State Health Facts is comprised of more than 800 health indicators and provides users with the ability to map, rank, trend, and download data. Data come from a variety of public and private sources, including Kaiser Family Foundation reports, public websites, government surveys and reports, and private organizations. The data is generally available by state as well as at a national level which allows researchers to compare and analyze certain indicators state-by-state, and to the national average.

Available from: <http://kff.org/statedata/>

8 Budget Browser

Organization: Massachusetts Budget & Policy Center

Year(s) of data used: 2005, 2014, and 2015

Description of data: The Massachusetts Budget & Policy Center issues Budget Monitors that offer clear and very timely analysis of each version of the state budget: the Governor's proposal and those of the Legislature. So that people don't have to sift through hundreds of line items to understand what the budget funds, these Budget Monitors provide clear information on the policy initiatives and funding levels each budget proposes for each area of government, and how those proposals compare to each other and to the past.

Available from: <http://www.massbudget.org/browser/index.php>

9 Massachusetts Health Data Consortium

9.1 Massachusetts Health Data Consortium Discharge Database

Organization: Massachusetts Health Data Consortium

Year(s) of data used: 2009-2012

Description of data: The Inpatient Discharge Database contains the most typical information about a discharge, such as the patient's age, sex, diagnoses, procedures, location of care, type of admission, and DRG groups. Additionally, the database contains a number of lookup tables for data elements such as hospitals, payers, and ICD9 Codes.

Available from: <http://www.mahealthdata.org>

10 National Cardiovascular Data Registry

10.1 CathPCI Registry

Organization: National Cardiovascular Data Registry

Year(s) of data used: 2012

Description of data: The CathPCI Registry assesses the characteristics, treatments and outcomes of cardiac disease patients who receive diagnostic catheterization and/or percutaneous coronary intervention (PCI) procedures for all participating providers. This tool captures the data that measure adherence to ACC/AHA clinical practice guideline recommendations, procedure performance standards, and appropriate use criteria for coronary revascularization. The registry is primarily used for providers who want to benchmark hospital level cardiac outcomes to providers of a similar cohort.

Available from: <https://www.ncdr.com/webncdr/cathpci/>

11 U.S. Census Bureau

11.1 American Community Survey

Organization: U.S. Census Bureau

Year(s) of data used: 2009 to 2012

Description of data: The American Community Survey from the United States Census Bureau is a survey that collects demographic data (age, sex, race, household structure, income, health insurance, education, etc.) from communities around the United States. Because the survey data are collected from a sample of people who choose to participate and share their responses, the

American Community Survey is stronger for providing population distributions of characteristics, in measures like percentages, means, medians and rates. Summary data from the survey is released annually, in 1-year, 3-year average, and 5-year average formats, where the output values are averages over the period prior to the release year. The 1-year data are the most current, but the least precise due to smallest sample size. The 3-year and 5-year data can both be helpful for studying smaller populations where a 1-year sample size is not large enough to be significant, but both have the tradeoff of being less current than the 1-year data.

Available from: <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>