

Massachusetts All-Payer Claims Database: Analytic and Technical Workgroups

September 27, 2011



DIVISION OF
Health Care
Finance and Policy

Objectives for today's meeting

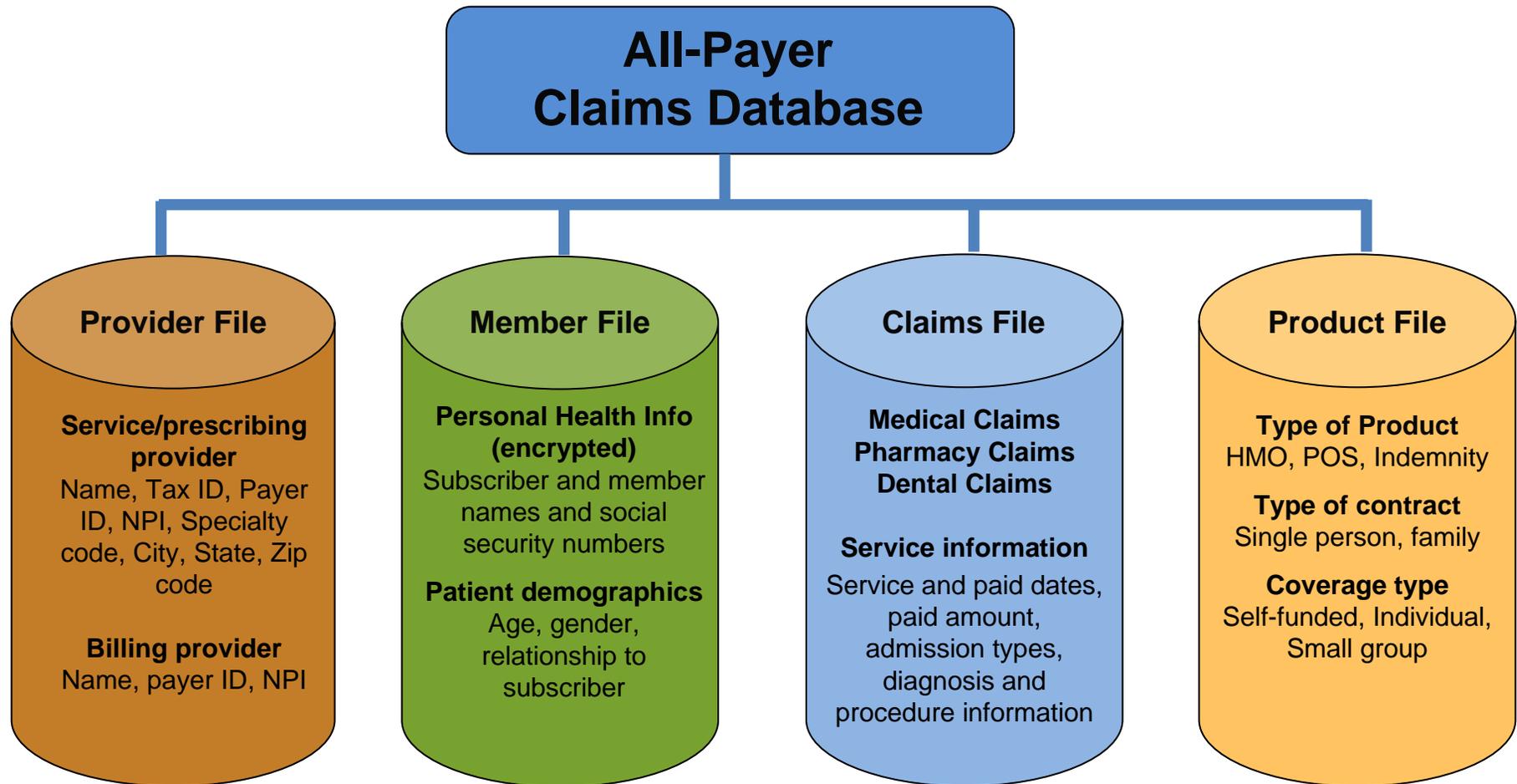
- Define an “all-payer claims database” (APCD) and review recent efforts in Massachusetts to develop the APCD
- Review the goals and objectives of the Analytic and Technical workgroups
- Provide feedback on potential topics for analytic and technical discussion

What is an All-Payer Claims Database (APCD)?

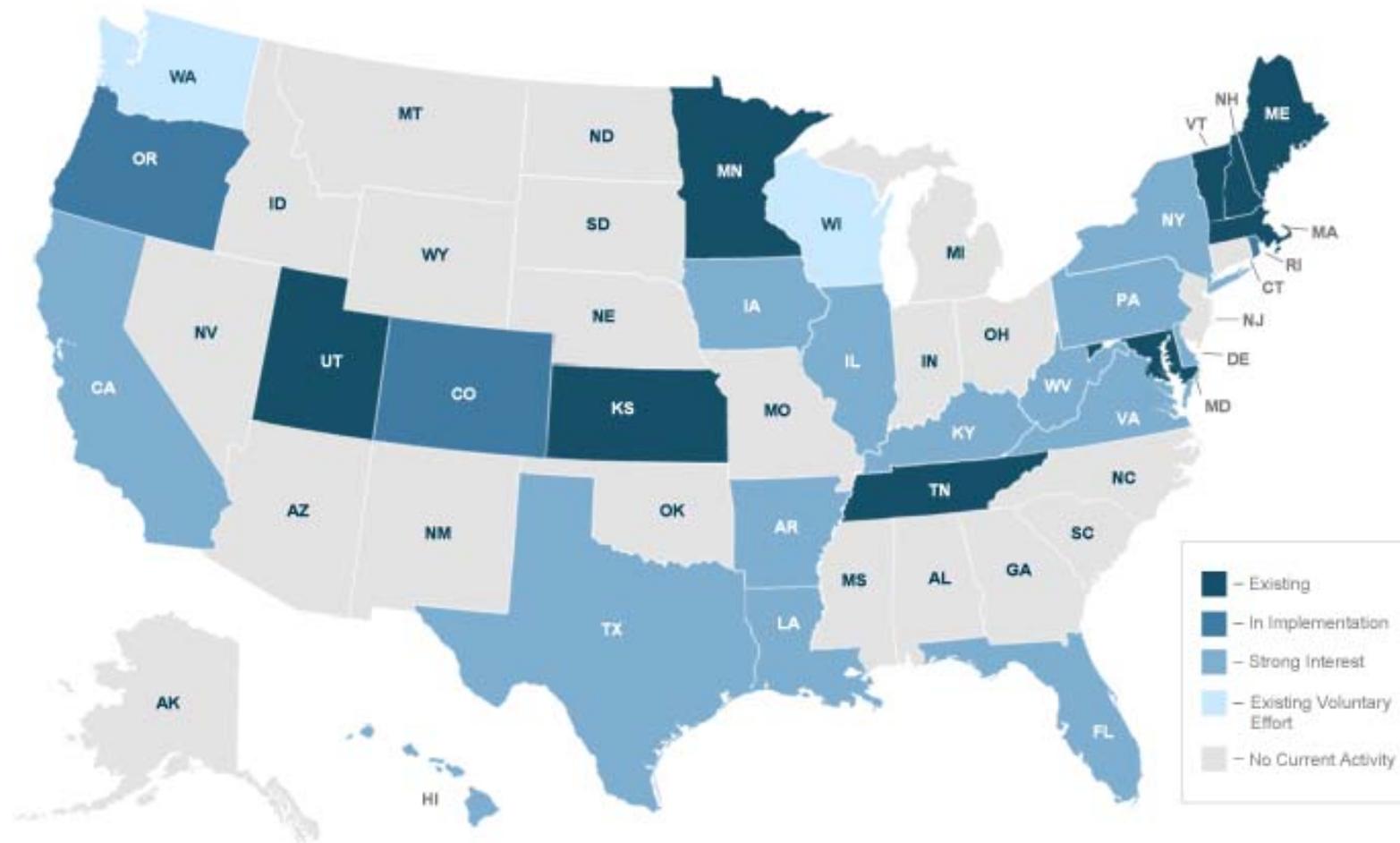
- All-Payer Claims Databases (APCDs) are large-scale databases that systematically collect health care claims data from a variety of payer sources which include claims from most health care providers*
 - Includes Medicare and Medicaid and encompasses both fully-insured and self-insured
 - Components can include medical claims, dental claims, pharmacy claims, and information from member eligibility files, provider files, and product files
 - These components may also include definitions of insurance coverage (covered services, group size, premiums, co-pays, and deductibles) and carrier-supplied provider directories

* Source: National APCD Council, www.apcdcouncil.org

APCDs link critical information across file types to create a single, comprehensive dataset



DHCFP's development of an APCD is consistent with a growing national trend



Four phases of APCD development in Massachusetts

- Planning ✓
- Implementation
- Information Production (analytics and extracts)
- Potential Ongoing Enhancements

Phase One: Planning

(August 2008 – July 2010)

Key Highlights

- Established a collaborative process with stakeholders
- Aligned Massachusetts technical specifications for submissions with APCD efforts in other states, particularly in New England, where payers may be subject to compliance from multiple states
- Adopted final data collection and release regulations
- Prepared application for Medicare data
- Documented business requirements of other governmental agencies to meet their data needs
- Evaluated software tools for data analytic enhancements (High Risk, Episode, Preventable Readmissions, geo-coding, master member and provider files, etc.)

Phase Two: Implementation

(August 2010 – ongoing)

Key Highlights

- Built the technical system to collect claims data
- Purchased Episodic Treatment and Episodic Risk Group software
- Ensuring protection and de-identification of personal and sensitive information
 - Completed and passed a penetration test of the web portal service utilized for sending encrypted data files
 - Conducting a third-party SAS70 audit to validate the operational effectiveness of agency's security program and affirm full compliance with federal HIPAA rules and state laws
- Conducting daily technical assistance calls regarding data submission with payers
- Developing ISAs with other governmental entities
- Integrating Medicare data into APCD
- Partnering with NAHDO and APCD Council to create data standards with ANSI X12 and NCPDP data standardization boards
- DHCFP began receiving health care claims data for 2008, 2009, and 2010 from payers in May 2011

DHCFP will undertake detailed efforts to ensure the APCD has reliable and accurate information

- Data Completeness: Sample efforts
 - DHCFP is currently preparing data from the Department of Revenue to compare the number of member eligibility files submitted to the APCD with the 1099-HC tax form
 - Variance Requests will be reviewed element by element to better understand missing data
- Data Standardization: Sample efforts
 - DHCFP will compare current data (2010 and 2011) in the APCD to previous submissions to other governmental agencies
 - DHCFP will compare historical data (2008 and 2009) in the APCD to previous submissions to other governmental agencies
- Data Quality and Integrity: Sample efforts
 - DHCFP will analyze test and production files received for 2008, 2009, 2010, and 2011
 - DHCFP will perform several quality assurance checks, including cross-file linkages for accuracy, claims versioning consistency across payers, etc.
- The quality and completeness of the data submitted by payers will impact when the APCD will be ready for use

Phase Three: Information production

DHCFP proposes a three-pronged approach to this phase

- Utilization of data for DHCFP's statutorily required analyses
 - Annual cost trends analysis and reporting
 - Reporting of Total Medical Expenses and Relative Prices
- Provision of data to other state governmental agencies for their statutorily required uses
- Release of data to external entities for uses in public interest
 - Data extracts for researchers, employers, payers, providers, etc.
 - Standard reports of top 20 diagnosis codes, utilization measures (PCP visits/1000, ED visits/1000, etc)
 - Summary metrics of member demographics, total medical, dental, or pharmacy claims payments, prevalence of selected conditions

Phase Four: Potential ongoing enhancements

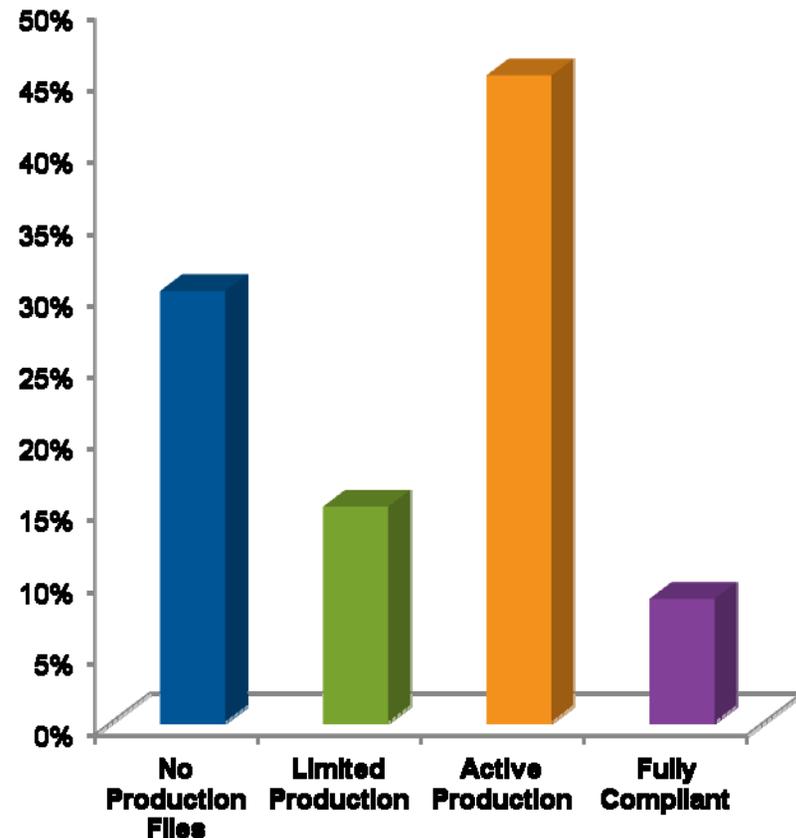
Estimated timeframe: Calendar year 2013 onwards

- DHCFP may provide enhanced data access through a web-based interface that would give applicants access to approved files and the ability to utilize analytic software tools, such as episodic treatment groupers (ETGs) and risk-adjustment software (DxCG), and tools to generate reports and dashboards for analysis
- DHCFP can create pre-determined modules based on specific, common data uses
 - Traditional model for release is to create files based on tiers of data sensitivity. These all-encompassing files are relatively easy to produce but require applicants to prepare and purchase technical hardware and software to support data intake and analysis
 - Web-based access is beneficial to those who otherwise would not have the IT infrastructure or resources to invest in expensive analytic tools and the experienced staff to manipulate data files
- DHCFP's analytic and technical staff could be made available, for an additional fee, to guide users of the data and help troubleshoot issues

Data intake status of the APCD

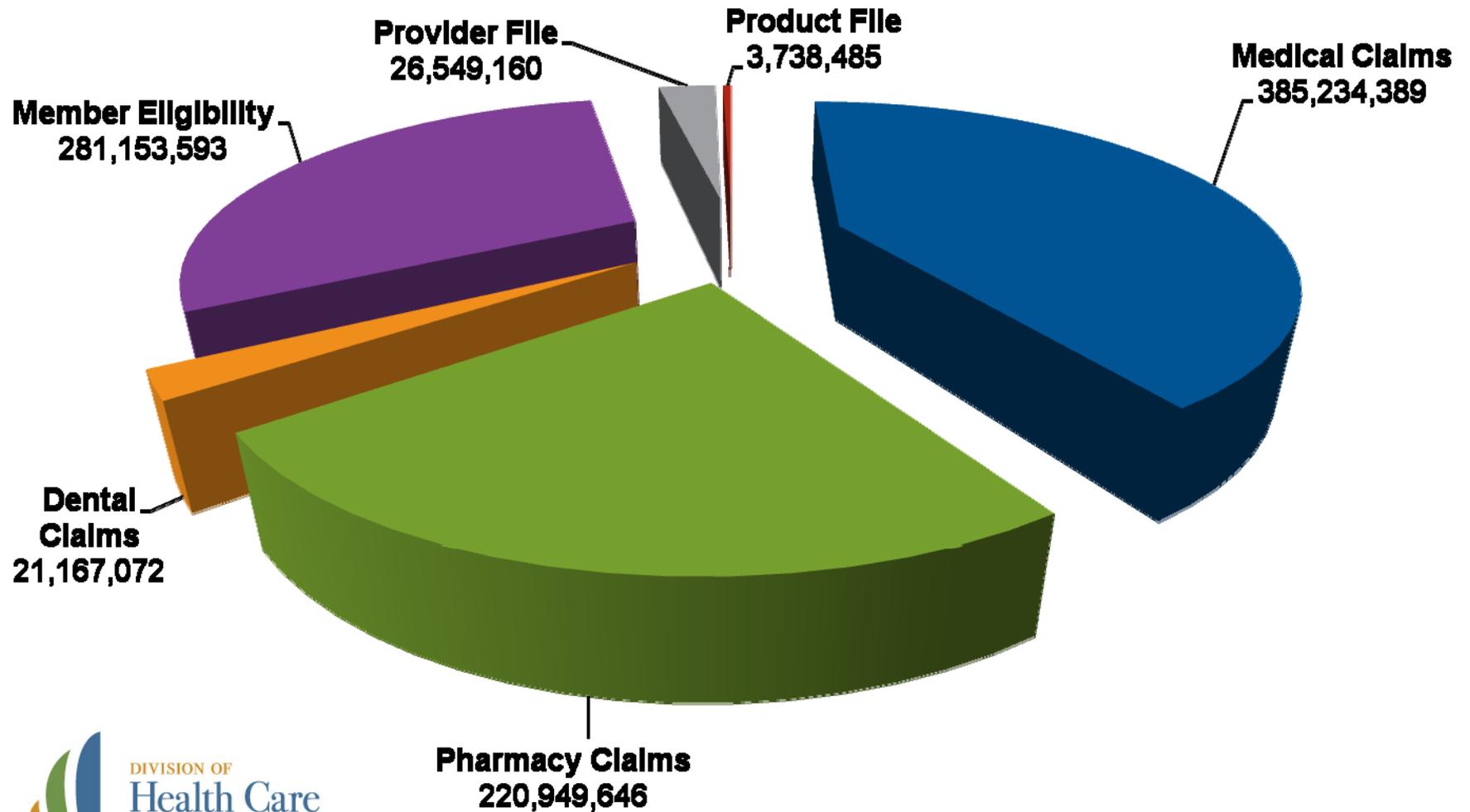
- 130+ registered health care payers include fully-insured, self-insured, third-party administrators (pharmacy, dental, vision, behavioral health, etc) and Medicaid MCOs
- 33 have been granted reporting exemptions for 2011 primarily due to low representative membership (fewer than 2000 covered lives)
- Approximately 70 percent of payers required to report have submitted production data files

APCD Payer Reporting Activity



Summary of production data in the APCD

Total number of record per file type



APCD workgroups support DHCFP's efforts to ensure data quality, accuracy, and reliability

- APCD Analytic and Technical workgroups serve an advisory role for:
 - Enhancement of data integrity and completeness
 - Improvement of data quality through shared experiences and best practices
 - Identifying and fostering partnerships across government agencies, businesses, providers, payers, researchers, consumers, etc.
 - Developing future strategies to support key health care reform initiatives

APCD workgroups will discuss key issues and make recommendations for enhancements to the APCD

Example 1: Data Quality Assurance

Analytic Workgroup

What clinical or financial measurements can be used to evaluate data quality assurance?

How can derived or summary data be utilized to measure data quality?

What are some innovative approaches to ensure APCD cross-file quality assurance?

Technical Workgroup

What standard field-level edits and intake rules would enhance the data quality of the APCD?

What adjustments to field-level thresholds should be made to enhance data quality?

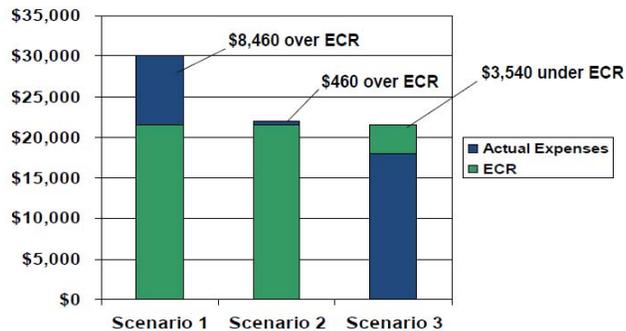
What quality assurance checks can be completed by payers before data submission?

Example 2: Data enhancement tools and reporting

DHCFP may present sample data or analyses to provide additional context and information for workgroup discussions

Prometheus Payment Model

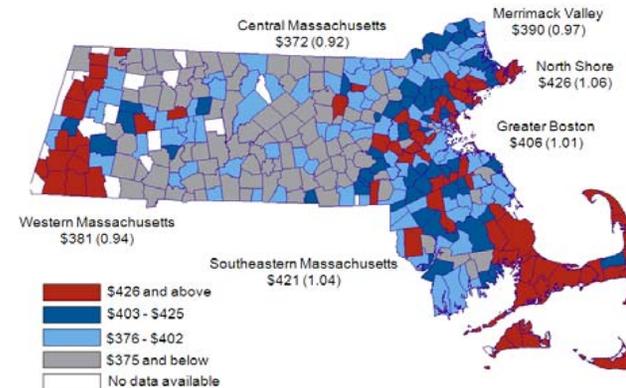
Example: Patient A underwent hip replacement surgery by Provider B (ECR: \$21,540)



* The numbers are dummy numbers and do not reflect any actual information from hospitals, physicians, or payers.

Commercial unadjusted Total Medical Expenses (TME) by city and town

This figure provides data for 335 of Massachusetts' 351 cities and towns. Unadjusted city and town TME ranged from a low of \$249 PMPM to a high of \$676 PMPM.



15



APCD workgroup discussions: Data enhancement tools and reporting

Analytic Workgroup

What types of standard reports would help employers develop worksite wellness programs to address high cost drivers?

How can the utilization of the APCD enhance pending research proposal opportunities?

How can the APCD help evaluate the effectiveness of new and innovative cost and quality measures?

How can the APCD be utilized to support ACO development, HIT adoption, and payment reform?

Technical Workgroup

What types of partnership opportunities are available for DHCFP to seek with data analytic vendors or other stakeholders?

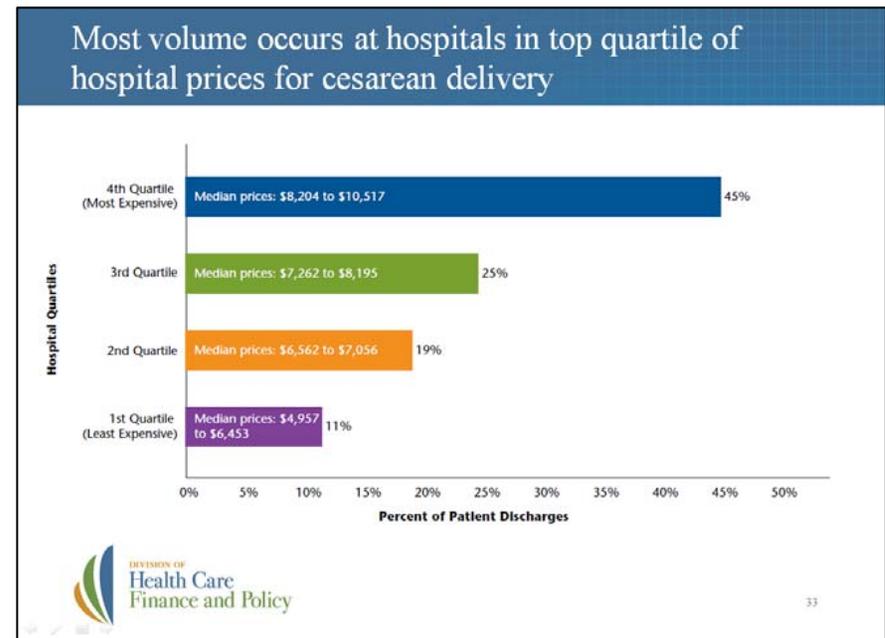
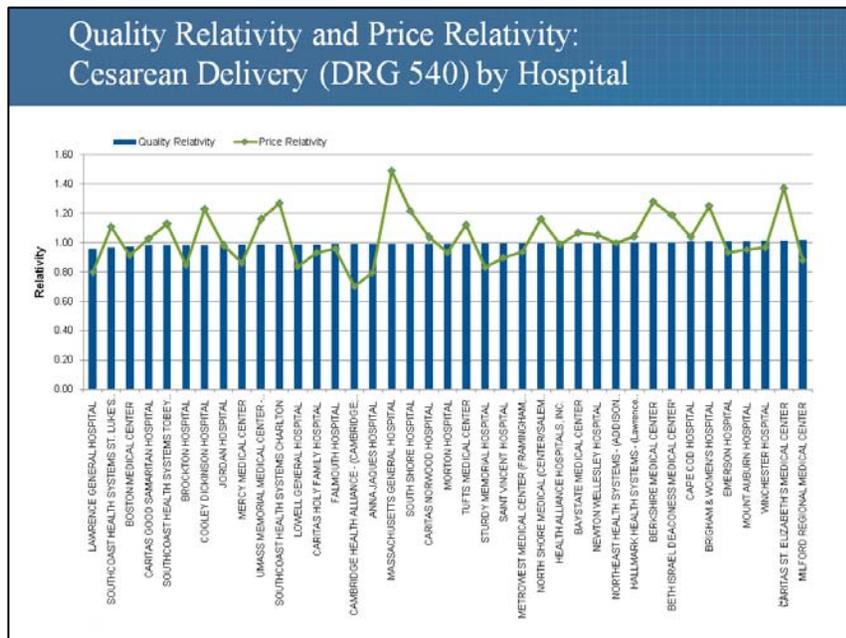
How much technical and analytic capacity do employers, researchers, providers, and payers have?

Would payers, providers, researchers and analytic vendors be interested in sharing best practices and coding techniques?

What ongoing technical and infrastructure changes should DHCFP consider to enhance the APCD's capacity?

Example 3: Utilizing APCD with other data sources

DHCFP may present sample data or analyses to provide additional context and information for workgroup discussions



APCD workgroup discussions: Utilizing APCD with other data sources

Analytic Workgroup

Will the APCD be capable of linkage to other data sources?

How can APCD linkage with other data sets help monitor the effectiveness of public health programs?

What research questions can the linkage of APCD with other data sets facilitate?

Technical Workgroup

How should uniquely identified members/patients in the APCD be linked to other data sources?

What new data elements are needed to successfully link the APCD with the Acute Hospital Case Mix Dataset or other data sources?

What additional security and privacy concerns does APCD linkage with other data sources raise?

APCD Analytic Workgroup will meet on the 3rd Tuesday of each month

- Future discussions may include:
 - Exploring capabilities of analytic tools: Episodic -treatment groupers (Symmetry ETG), Risk-adjustment tools (ERG, DxCG), Geo-coding tools
 - Standardization of APCD data intake specifications and files
 - Sharing ideas to improve data quality assurance and completeness
 - Creating standard reports for broad consumption
 - Using the APCD to support the development of future health care reforms
 - Adoption of Health Information Technology
 - Facilitating Health Information Exchange/Meaningful Use
 - Accountable Care Organizations
 - Payment Reform
- Potential participants may include:
 - Payer and Provider performance measurement analysts, financial analysts, employer benefits consultants, quality assurance analysts, data vendors, researchers

APCD Technical Workgroup will meet on the 4th Tuesday of each month

- Future discussions may include:
 - Sharing current field edits and rules for intake and discussing new approaches to improve data quality
 - Reviewing data element threshold criteria and measures
 - Making recommendations regarding data structure and access
 - Public use and limited use files
 - Reporting tools and reports
 - Security and privacy
- Potential participants may include:
 - Business analysts, data analysts, IT support, representatives in other states interested in creating an APCD

APCD workgroup next steps

October 2011 Meeting Schedule

Payer Technical Assistance Group 2 nd Tuesday of the month	Oct. 11 th @ 2pm
APCD Analytic Workgroup 3 rd Tuesday of each month	Oct. 18 th @ 2pm
APCD Technical Workgroup 4 th Tuesday of each month	Oct. 25 th @ 2pm

For more information, please visit: www.mass.gov/dhcfp/apcd