



All-Payer Claims Databases: Overview and Uses

Health Policy Institute of Ohio
December 10, 2015

About the APCD Council

The APCD Council is a learning collaborative of government, private, non-profit, and academic organizations focused on improving the development and deployment of state-based all payer claims databases (APCDs). The APCD Council is convened and coordinated by the Institute for Health Policy and Practice (IHPP) at the University of New Hampshire (UNH) and the National Association of Health Data Organizations (NAHDO).

Our Work

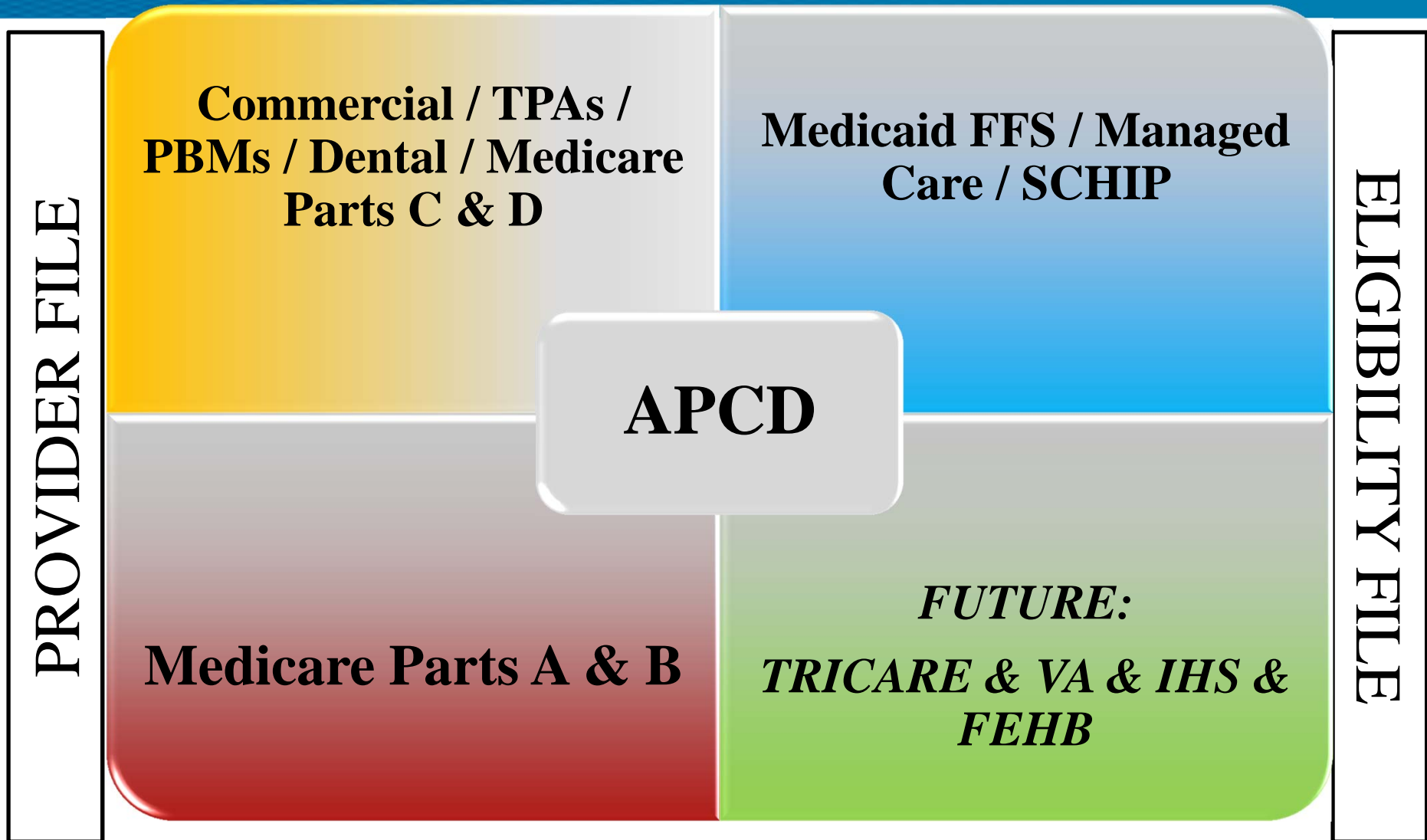
- Early Stage Technical Assistance to States
- Shared Learning
- Catalyzing States to Achieve Mutual Goals

- Increased Transparency Efforts (state, consumer, employer, etc.)
- Federal Funding Opportunities:
 - Health Information Exchange (HITECH)
 - CMS State Innovations Model (SIM)
 - CMS CCIIO
- Health Reform (PPACA and State Initiative)
- Payment Reform
 - Patient Centered Medical Home
 - Accountable Care Organizations

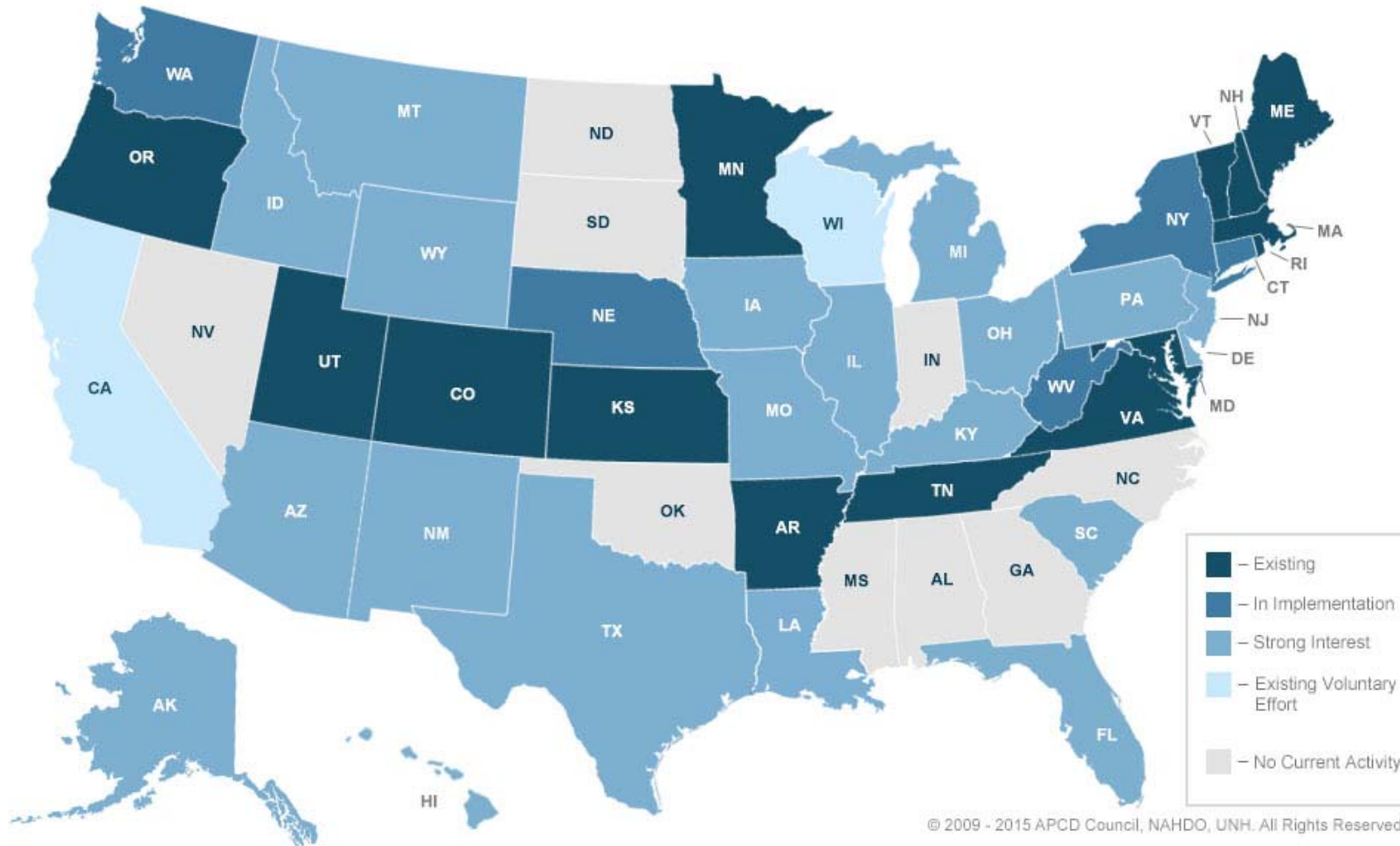
Databases, created by state mandate, that typically include data derived from medical, pharmacy, and dental claims with eligibility and provider files from private and public payers:

- Insurance carriers (medical, dental, TPAs, PBMs)
- Public payers (Medicaid, Medicare)

Typical APCD Data Sets



September 2015 State Progress Map



Typically Included Information

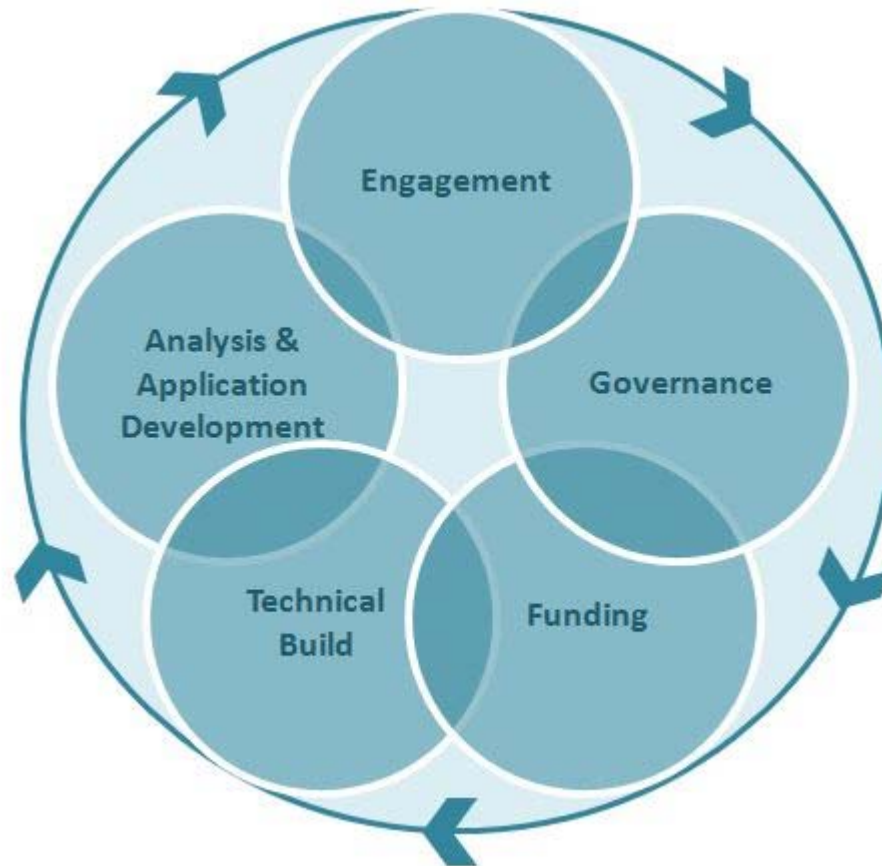
- Encrypted social security* *
- Patient demographics (date of birth, gender, residence, relationship to subscriber)
- Type of product (HMO, POS, Indemnity, etc.)
- Type of contract (single person, family, etc.)
- Diagnosis codes (including E-codes)
- Procedure codes (ICD, CPT, HCPC, CDT)
- NDC code / generic indicator / other Rx
- Revenue codes
- Service dates
- Service provider (name, tax id, payer id, specialty code, city, state, zip code)
- Prescribing physician
- Plan charges & payments
- Member liabilities (co-pay, coinsurance, deductible)
- Date paid
- Type of bill
- Facility type
- Other 835/837 fields

Typically Not Included Information

- Services provided to uninsured
- Denied claims
- Workers' compensation claims
- Referrals
- Test results from lab work, imaging, etc.
- Provider affiliations
- Premium information
- Capitation fees
- Administrative fees
- Back end settlement amounts
- Back end P4P or PCMH payments

CONSIDERATIONS FOR APCD DEVELOPMENT

For more information, please see our manual at <http://www.apcdouncil.org/manual>.



- For more information, please see the APCD Development Manual: <http://www.apcdouncil.org/manual>.

- **Stakeholder Engagement**
 - Inclusive, transparent process
- **Defining a shared vision for APCD**
- **APCD Governance**
 - Mandated or voluntary
- **Funding Sources**
 - Start-up and sustainability
- **Technical Considerations**
 - Scope of Data Collection
 - Alignment with payer capabilities
- **Data Access and Release**
 - Linked to sustainability
- **Analytics**
 - APCD Reporting & Measurement
 - APCD Enhancements

Stakeholder	Key Interests in APCD
Policy Makers	May be a “champion” of the APCD program; Inform policy, payment, and health care reforms
Payers	Data suppliers and technical/content experts
Providers	How the data will be used
Employers	Costs of health services; Price transparency
State Agencies	Governance and use issues; Medicaid applications Leveraging existing infrastructure
Consumers	Informed choices, pricing
Researchers	Access to and use of data
HIE/HIX	Supplement clinical/benefits data with claims; Consumer support tools; Rate review

State Approaches to Governance

State Led	Public-Private	Private Non-profit
State agency led; policy development informed by multi-stakeholder advisory committee	Initial planning led by state agency; day-to-day operations delegated to private non-profit, selected by the state	Private, voluntary reporting initiatives
Kansas, Maine, Massachusetts, Maryland, Minnesota, New Hampshire, Oregon, Tennessee, Utah, Vermont, W. Virginia, Rhode Island, Connecticut, New York, Washington	Colorado, Virginia, Arkansas	Wisconsin, California

APCD USES

APCD use cases are maintained at the APCD Showcase,
www.apcdshowcase.org



- APCDs provide an almost-complete sample of state’s insured population
 - Large sample size = more precise estimates for individual payers
 - Large numbers protect patient confidentiality when analyzes populations and certain conditions
- APCDs are filling critical information gaps for state agencies
 - Payment reform planning and evaluation
 - ACOs have no way of tracking total cost of care per patient
 - Transparency tools and clearer picture of health cost, quality, use

APCD Showcase ALL-PAYER CLAIMS DATABASE


 presented by the APCD Council

CASE STUDIES

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APCD Showcase: States Leading by Example

Welcome to the APCD Showcase where examples from state all-payer claims databases (APCDs) have been organized in order to provide stakeholders with tangible examples of APCD reports and websites. The examples have been organized by intended audience, and are also searchable by additional criteria. We invite you to explore the site and learn more about the value that APCDs provide to states and their stakeholders.



Choose from the categories below or [See all Case Studies >](#)



Consumers

Consumer websites primarily focused on cost and quality



Employers

Employer and purchasing coalition efforts



Providers

Accountable Care Organizations and quality



Researchers

Academic and "think tank" research

- What is the total spend in a state? (CO)
 - Variation in pricing for common procedures
 - How is health care service use changed over time?

Where are health care dollars are going?

- *Chronic disease among 21.1% of Utahns represents 53.3% of the health care costs*

Variation in Facility Specific Total Typical and PAC Costs

Knee Replacement Review for Medicaid Line of Business

Facility Specific Total Typical and PAC Costs

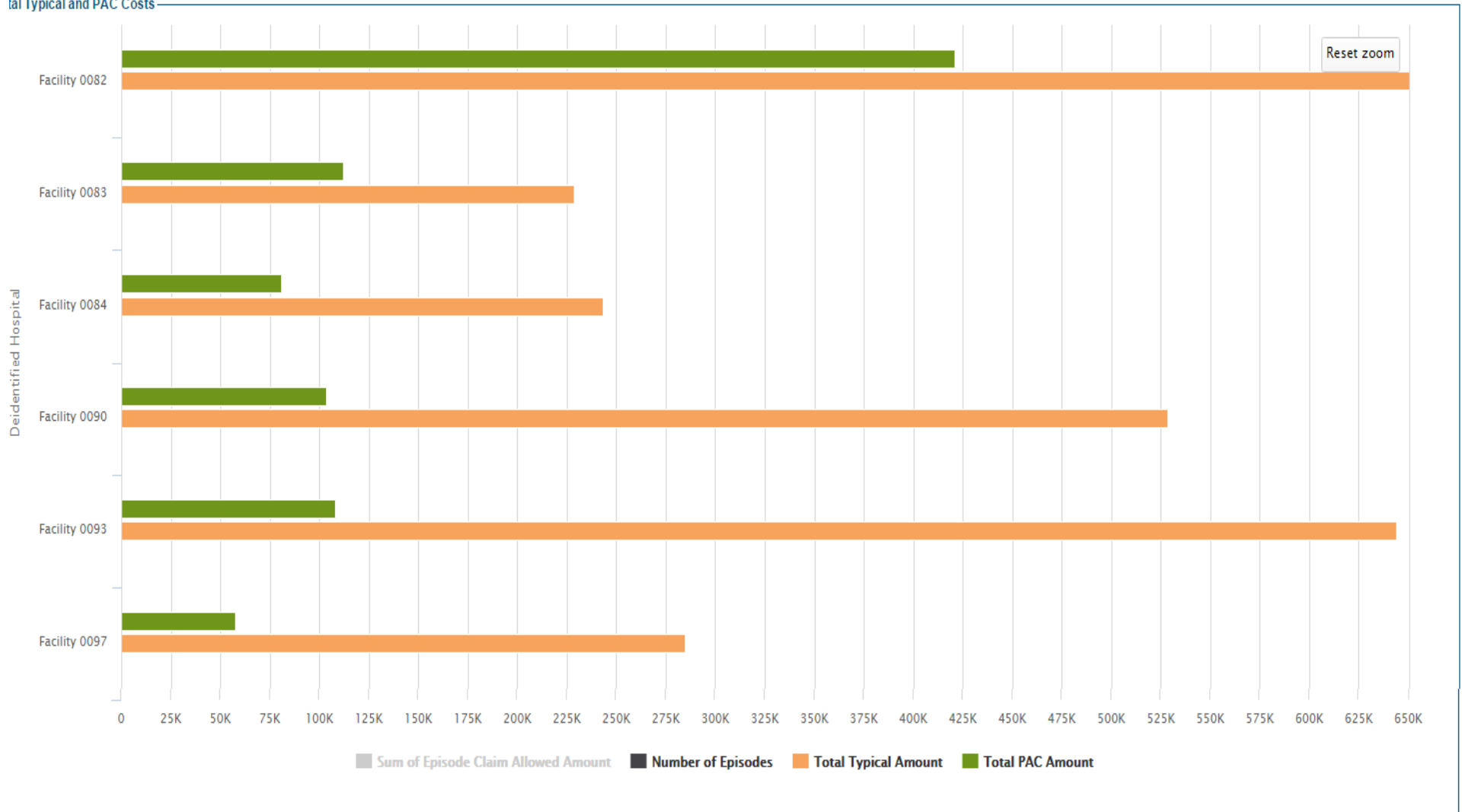
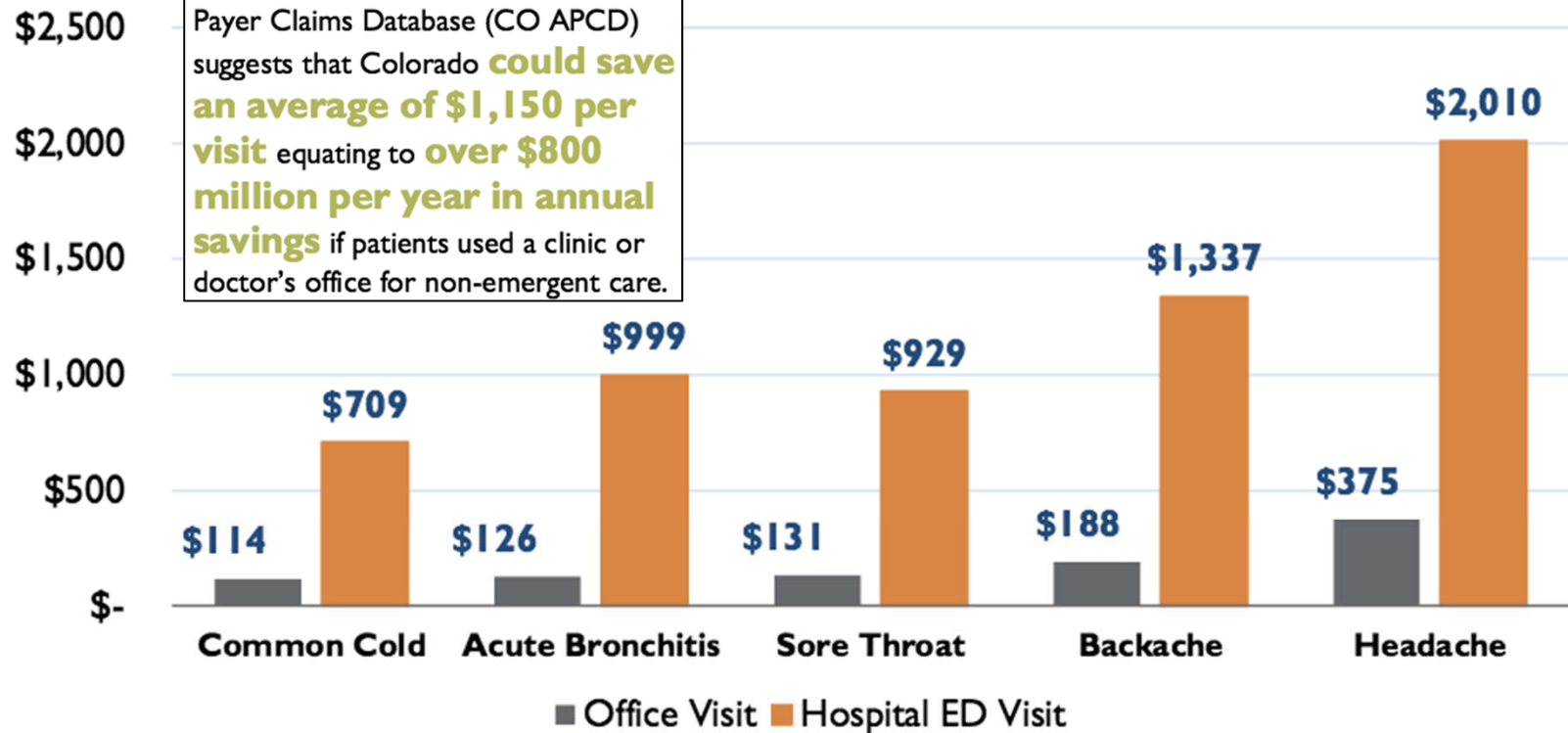


Figure II. Average Costs to Treat Common Ailments: Outpatient Setting vs. Emergency Department

Analysis of 2014 commercial health insurance claims in the Colorado All Payer Claims Database (CO APCD) suggests that Colorado **could save an average of \$1,150 per visit** equating to **over \$800 million per year in annual savings** if patients used a clinic or doctor's office for non-emergent care.



2014 Commercial Payer Claims Analysis, Colorado All Payer Claims Database

Source: <http://civhc.org/getmedia/6ee4d98f-a1a1-47af-8352-b62b0a3e8b10/ED-Use-Cost-Driver-Analysis.pdf.aspx/>

MN Potentially Preventable Health Care Events

expected rates for a given population.

¹⁶ Treatment for chronic illnesses does not include mental health, substance abuse, and malignancy.

¹⁷ A recent survey of chest pain presenting to the PCP office found that 70% of the individuals with chest pain was caused by muscles surrounding the chest wall, stomach upset, and anxiety.

10 Introductory Analysis of Potentially Preventable Health Care Events in Minnesota MN APCD

The specific symptoms and conditions for which people sought ED services that were potentially preventable cross a variety of clinical categories. The top four account for approximately 33 percent of all PPVs and include:

- Infections of the upper respiratory tract (9 percent);
- Abdominal pain (7 percent);
- Musculoskeletal systems and connective tissue diagnoses such as back pain (7 percent); and
- Chest pain (6 percent).¹⁸

Because many ED visits are for conditions that are primary care-treatable and because the PPV approach excludes visits that resulted in a hospital stay or were for trauma cases with surgical procedures, a sizable share of patients with PPVs did not have complex health conditions at their ED visit. As shown in Figure 2, patients who were identified as comparatively healthy based on their health care use pattern accounted for more than half of potentially preventable ED visits (53.3 percent).¹⁹ Almost one-third of patients with a PPV (31 percent) had a significant chronic disease in one or multiple organ systems.²⁰ Healthy individuals accounted for a smaller share of PPVs in the Medicare population (about 35 percent, not shown), compared with 62.2 percent and 58.5 percent for Medicaid and commercially insured patients, respectively.

FIGURE 2: Distribution of Patient Clinical Risk for Patients with Potentially Preventable ED Visits, 2012

Our analysis found that approximately 710,000 individual patients accounted for the 1.2 million potentially preventable ED visits in 2012. Figure 3 shows that nearly 31 percent of patients with a PPV had more than one preventable visit, and seven percent, or about 50,000 Minnesotans, had four or more visits to the ED that were potentially preventable.

FIGURE 3: Frequency of Potentially Preventable ED Visits per Person, 2012

Frequency of Visits	Percent of Patients with a PPV
One visit	69%
Two visits	18%
Three visits	6%
Four visits	3%
Five visits or more	4%

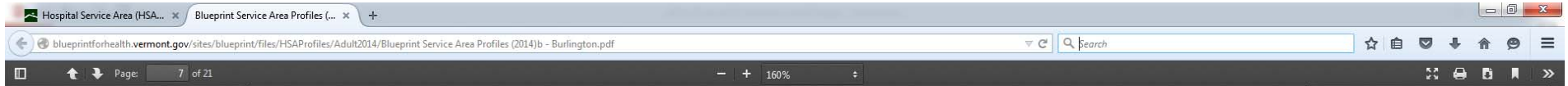
SOURCE: MDH/Health Economics Program, analysis of health care services provided in 2012 to MN residents, MN APCD (2015)

Patients with three or more potentially preventable visits to the ED differed from patients with fewer PPVs in the following ways, they were more likely to:

- Be a Medicaid patient. Half of all patients who had three or more PPVs were Medicaid patients;

Source: http://www.health.state.mn.us/healthreform/allpayer/potentially_preventable_events_072115.pdf

Vermont Blueprint for Health, HSA Profiles



HSA Profile: Burlington

Period: July 2013 - June 2014 Profile Type: Adults (18+ Years)

Plan All-Cause Readmissions (Core-1)

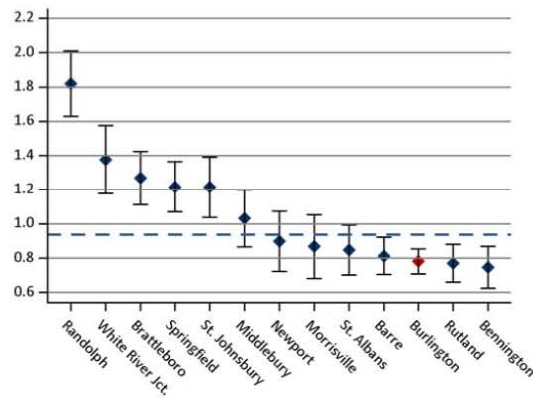


Figure 17: Presents the relative rate, including 95% confidence intervals, of continuously enrolled members, ages 18 years and older, that had an inpatient stay that was followed by an acute readmission for any diagnosis within 30 days during the measurement year. The rate is expressed as a ratio of observed to expected readmissions where the expected number of readmissions has been risk adjusted. The blue dashed line indicates the statewide average.

Follow-Up After Hospitalization for Mental Illness (Core-4)

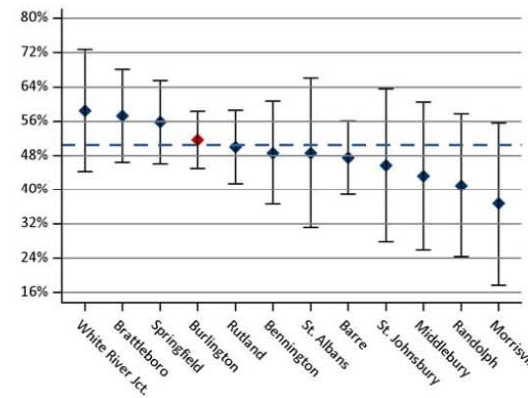


Figure 18: Presents the proportion, including 95% confidence intervals, of continuously enrolled members, ages 6 years and older, hospitalized for mental illness with an intensive outpatient encounter or partial hospitalization with a mental health practitioner and a follow-up visit within seven days of discharge. The blue dashed line indicates the statewide average.

Initiation of Alcohol/Drug Treatment (Core-5a)



Engagement of Alcohol/Drug Treatment (Core-5b)



Source: <http://blueprintforhealth.vermont.gov/node/680>



Bennington Dashboard



Bennington Blueprint Grant Award: United Health Alliance **Key Partners:** United Counseling Services (UCS) and SVHC. **State Level Leadership:** Craig Jones, MD, Beth Tanzman. **Local Leadership:** UHA Board of Directors, RCPC **Physician Champion:** Jim Poole, MD **Bennington Program Director:** Jennifer Fels jfels@uhealthcare.org

Program Goals

- Improve the health of the population
- Improve the patient experience
- Reduce healthcare costs

Patient Centered Medical Homes

Practice Name	NCQA Level
Battenkill Valley Health Center	2
Bennington Family Practice	3
Brookside Pediatrics & Adolescent Medicine	2
Green Mountain Pediatrics	3
Keith Michl, MD	3
Mount Anthony Primary Care	3
Eric Seyferth, MD	3
Shaftsbury Medical Associates	2
SVMC Deerfield Valley Campus	3
SVMC Medical Associates	2
SVMC Northshire Campus	3
SVMC Pediatrics	2
Avery Wood, MD	3

Program Funding

Community Health Team (CHT)

- Current \$1.46 PPPM
- Proposed July 2015
Payment methodology change to market share for each payer (except Medicare to remain at 22.22% for CHT funding) \$2.70 PPPM
- Proposed January 1, 2016 \$5.40 PPPM

Payments are received from: Blue Cross, MVP, CIGNA, Medicaid, Medicare

Grant Funding Annual Award \$250,800
Supports: Project Director, Practice Facilitator, Self-Management Program, Travel, \$2,000/Practice for specific IT initiatives

Current Staffing

Blueprint Grant

- Total FTEs 2.5

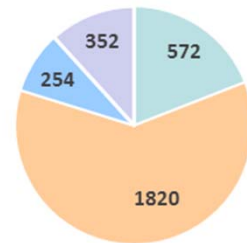
Community Health Team (CHT)

- Total FTEs 6.8

Vacancies – Behavioral Health Specialists for 3 new Blueprint Practices, Social Worker

Community Health Team (CHT) Utilization

Number of Bennington Blueprint CHT Encounters by Discipline
Quarter 2 FY 2015

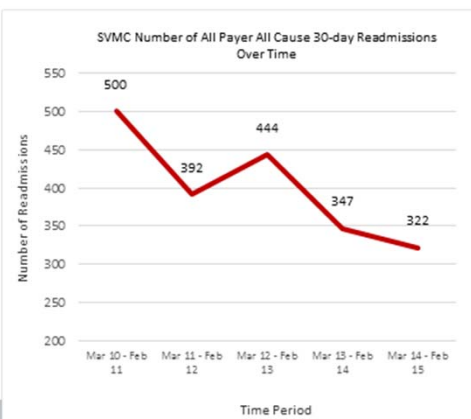


- Behavioral Health Specialist
- RN Case Manager
- Social Worker
- Dietitian

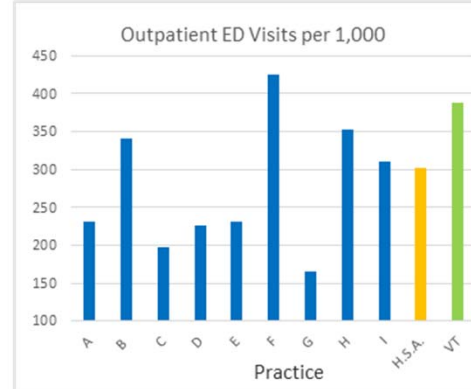
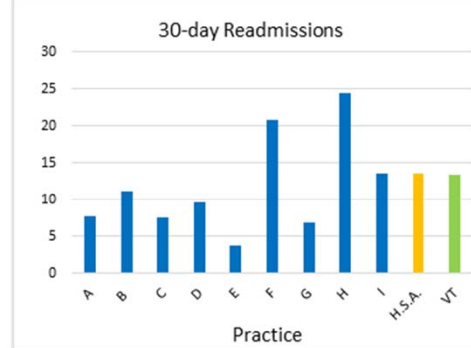
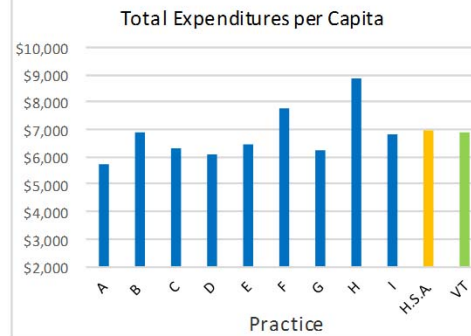
- Total number of patients served by CHT = 2,1169 (6.4% of total patient count)
- 34% of patients served by CHT had more than 1 discipline encounter

Data source: DocSite

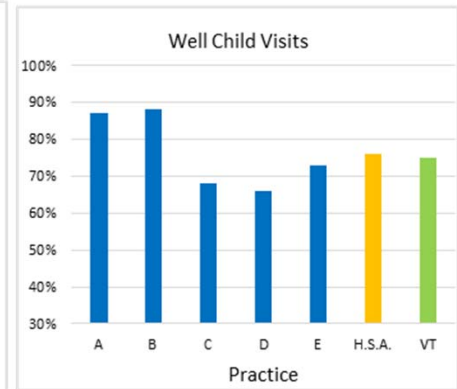
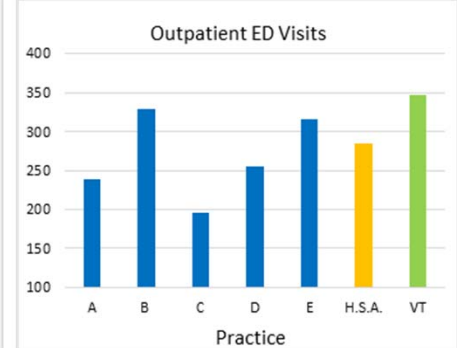
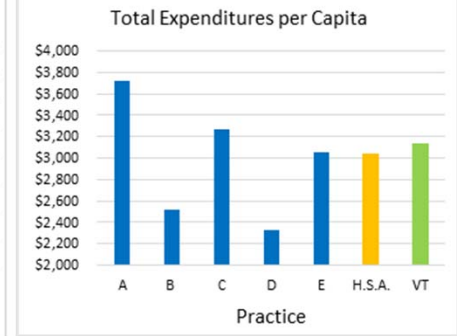
- Total patient count in the Bennington Blueprint portal = 33,216
- Total payer attribution count = 16,630



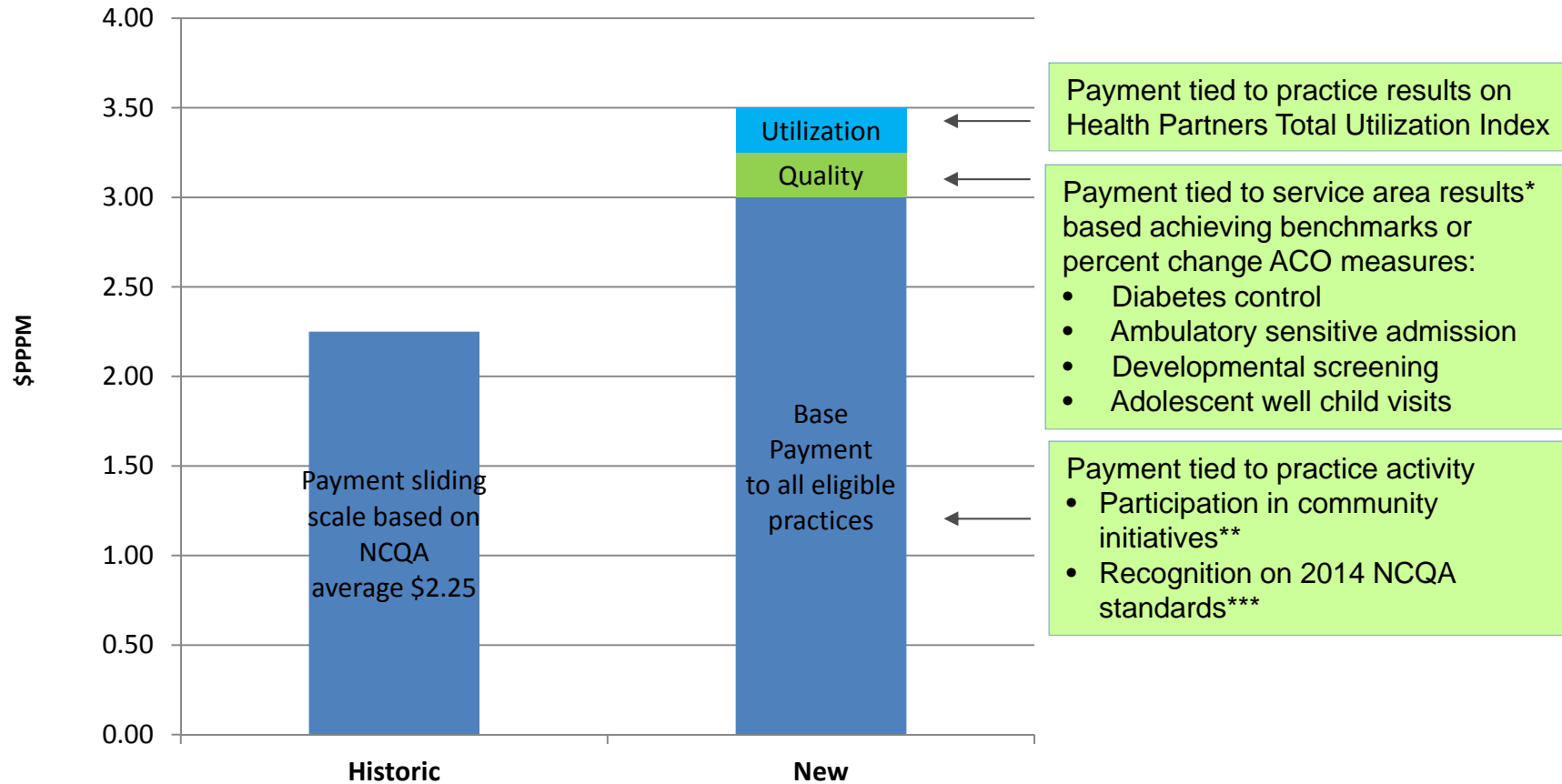
Adult Practice Profiles July 2013 – June 2014



Pediatric Practice Profiles



Comparison of current and proposed medical home payments



*Incentive to work with community partners to improve service area results.

**Organize practice and CHT activity as part of at least one community quality initiative per year.

***Payment tied to recognition on NCQA PCMH standards with any qualifying score.

Consumer Websites and Pricing Transparency Tools



[Home](#) > [Health Insurance](#) > Health Care Prices

HEALTH INSURANCE

- HEALTH INSURANCE INTRODUCTION
- HEALTH CARE PRICES
- COMPARE HMOs
- HMO FINDER
- HEALTH INSURANCE OPTIONS
- MEDICARE & MEDICAID

OUTSIDE SOURCES

- OTHER HMO WEBSITES



VA gets a B for Health Care Price Transparency-Top 7 in the country



HEALTH CARE PRICES



Today, more people are paying for all or a greater share of their health care costs. Not having health insurance or membership in [high deductible health plans](#) are some reasons for this.

How much you pay for a doctor's visit, medical test or surgery can depend on which doctor, hospital or other health care provider you choose.

Here's How This Report Can Help You

- + [Are you uninsured?](#)
- + [Do you have a High Deductible Health Plan or high co-pay?](#)



Preventive Health

- [Colonoscopy](#)
- [Mammogram](#)
- [Office Visits: Adult Office Visit](#)
- [Office Visits: Well Child Visit](#)



Emergency Room Visits

- [Emergency Room Visit- Medium](#)
- [Emergency Room Visit- Very Minor](#)



Imaging

- [CT Scan: Abdomen](#)
- [CT Scan: Head/Brain](#)
- [MRI Scan: Back](#)
- [MRI Scan: Knee](#)



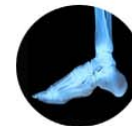
Maternity

- [Cesarean Delivery](#)
- [Ultrasound](#)
- [Vaginal Delivery](#)



Surgical Procedures

- [Angioplasty](#)
- [Arthrocentesis shoulder/hip/knee](#)
- [Arthroscopic Knee Surgery](#)
- [Breast Biopsy](#)
- [Destruction of Lesion](#)
- [Gall Bladder Surgery](#)
- [Hernia Repair](#)



Radiology/Other

- [Ankle X-Ray](#)
- [Bone Density Scan](#)
- [Chest X-Ray](#)
- [Endoscopy](#)
- [Foot X-Ray](#)

Colorado Medical Price Compare

The screenshot shows the Colorado Medical Price Compare website interface. At the top, there is a navigation bar with 'Home', 'Medical Service Prices', 'State Costs & Utilization', and 'Get More Data'. The 'Medical Service Prices' tab is active. Below the navigation bar, the search criteria are displayed: 'Hip Joint Replacement; Denver (80201); Private Insurance'. A 'Search Again' button is present. A note mentions that prices for Saint Joseph Hospital and Good Samaritan are lower due to a high percentage of Kaiser patients. The search results are displayed in a table format, showing 10 entries. The table columns are Type, Provider, Distance, Estimated Price, and Patient Complexity. The results list various hospitals with their respective distances and estimated prices. A legend at the bottom indicates that '**' means 'Data not available' and '***' means 'Under Review'.

CO MEDICAL PRICE COMPARE

Home Medical Service Prices State Costs & Utilization Get More Data

ADMINISTERED BY CIVHC
POWERED BY TRED 3M

Start > Search Results

Search Criteria
Hip Joint Replacement; Denver (80201); Private Insurance [Search Again](#)

Hip Joint Replacement
Note that Saint Joseph Hospital and Good Samaritan prices for private insurance are lower in part due to a high percentage of Kaiser patients which only reflect hospital payments. Additional bills for the provider and other services are not included. To view non-Kaiser prices at these hospitals, see... [Show More](#)

Search Results
Display Facilities within 10 miles [Hospital Quality](#) [Patient Perspective](#) Display as: Table | Map

Show 10 entries Search by Name:

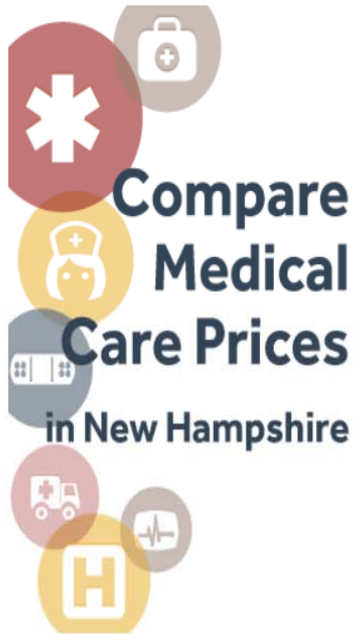
Type	Provider	Distance	Estimated Price	Patient Complexity
Facility	Exempla Saint Joseph Hospital	1 mi.	\$21,235	Medium
Facility	Presbyterian/St. Luke's Medical Center	1 mi.	\$31,460	Medium
Facility	Rose Medical Center	3 mi.	\$36,446	Medium
Facility	Porter Adventist Hospital	5 mi.	\$34,594	Low
Facility	Children's Hospital Colorado on Anschutz Medical Campus	6 mi.	**	**
Facility	Exempla Lutheran Medical Center	6 mi.	**	**
Facility	Swedish Medical Center	6 mi.	**	**
Facility	University of Colorado Hospital	8 mi.	**	**
Facility	St. Anthony North Hospital	8 mi.	**	**
Facility	OrthoColorado Hospital at St. Anthony Medical Campus	8 mi.	\$25,713	Low

Showing 1 to 10 of 12 entries

** Data not available *** Under Review

*Currently, data in the APCD includes only those members from Colorado aged 64 and under. See the [Data Vintage](#) item in the glossary for more details
CIVHC 950 S. Cherry Street, Suite 208, Denver, Colorado 80246 | 720-583-2095 (main phone) | 720-549-9189 (fax) | [contact us](#) | [terms of use](#) | [privacy policy](#) | [Medical Service Pricing Disclaimer](#) | Portions © 2014 Center for Improving Value in Health Care | Portions © 2014 3M

Source: www.comedprice.org



INSURED PATIENTS:

Get a cost estimate for a medical procedure

UNINSURED PATIENTS:

Get a cost estimate for a medical procedure

HealthCost was developed by the New Hampshire Insurance Department to improve the price transparency of health care services in New Hampshire. The website is currently receiving updates, and many significant changes are planned over the next year. Please send us an [email](#) if you would like to be notified as the improvements take place, as well as receive helpful information on how to use the site.

CONSUMERS

HealthCost provides information on the price of medical care in New Hampshire by insurance plan and by procedure. It also provides an estimate for uninsured patients. **Through HealthCost, New Hampshire residents can compare prices from health care providers throughout the state on more than two dozen medical procedures, including MRIs, CT scans, ultrasounds, and X-rays.** The information is derived from claims data collected from New Hampshire's health insurers and stored as a part of the Comprehensive Health Care Information System (NHCHIS), and the data on the HealthCost website will be updated quarterly. More information about the NHCHIS can be found here: <https://nhchis.com>.

This website serves as a resource to help you make informed decisions about purchasing health care services. The FAQs section of this website provides information on the site's methodologies as well as information on health insurance.

EMPLOYERS

The New Hampshire Insurance Department collects information from insurance carriers and publishes a report annually on the insurance marketplace. At this time, this section links you to the report, but in the future, you will have the opportunity to use the data interactively. Please send us an [email](#) if you would like to be notified as the improvements take place.

Brought to you by the Maine Health Data Organization



Home

Compare Costs & Quality

Find a Facility

About

Resources

Contact

know what to expect before you receive care

compare the costs & quality of healthcare procedures in Maine

find the cost of a procedure



more information. better decisions.

The *Maine Health Data Organization*, in collaboration with the *Maine Quality Forum*, is required by law to promote the transparency of healthcare cost and quality information via a publicly accessible website. The cost and quality of healthcare procedures can vary widely among providers. You have a choice in where you receive care. CompareMaine shows the average cost of common healthcare procedures at different facilities in Maine. You can also see patient experience ratings and how Maine hospitals compare on patient safety.

You can check the [average total cost](#) for hundreds of common healthcare procedures at different [facilities](#) around the state. You can also see patient experience ratings and how Maine hospitals compare on patient safety.

Health Costs

Choose a topic & procedure

Search

2 search results:

Inpatient/Outpatient Surgical Procedures

Joint Surgery

[Surgical arthroscopy of shoulder](#)

Multiple CPT Codes Included: 29805, 29806, 29807, 29819, 29820, 29821, 29822, 29823, 29824, 29825, 29826

[Surgical arthroscopy of knee](#)

Multiple CPT Codes Included: 29866, 29867, 29868, 29870, 29871, 29872, 29873, 29874, 29875, 29876, 29877, 29879, 29880, 29881, 29882, 29883, 29884, 29885, 29886, 29887

About This Site

This site was developed by the [Maine Health Data Organization \(MHDO\)](#) in

Contact

[Maine Health Data Organization](#)

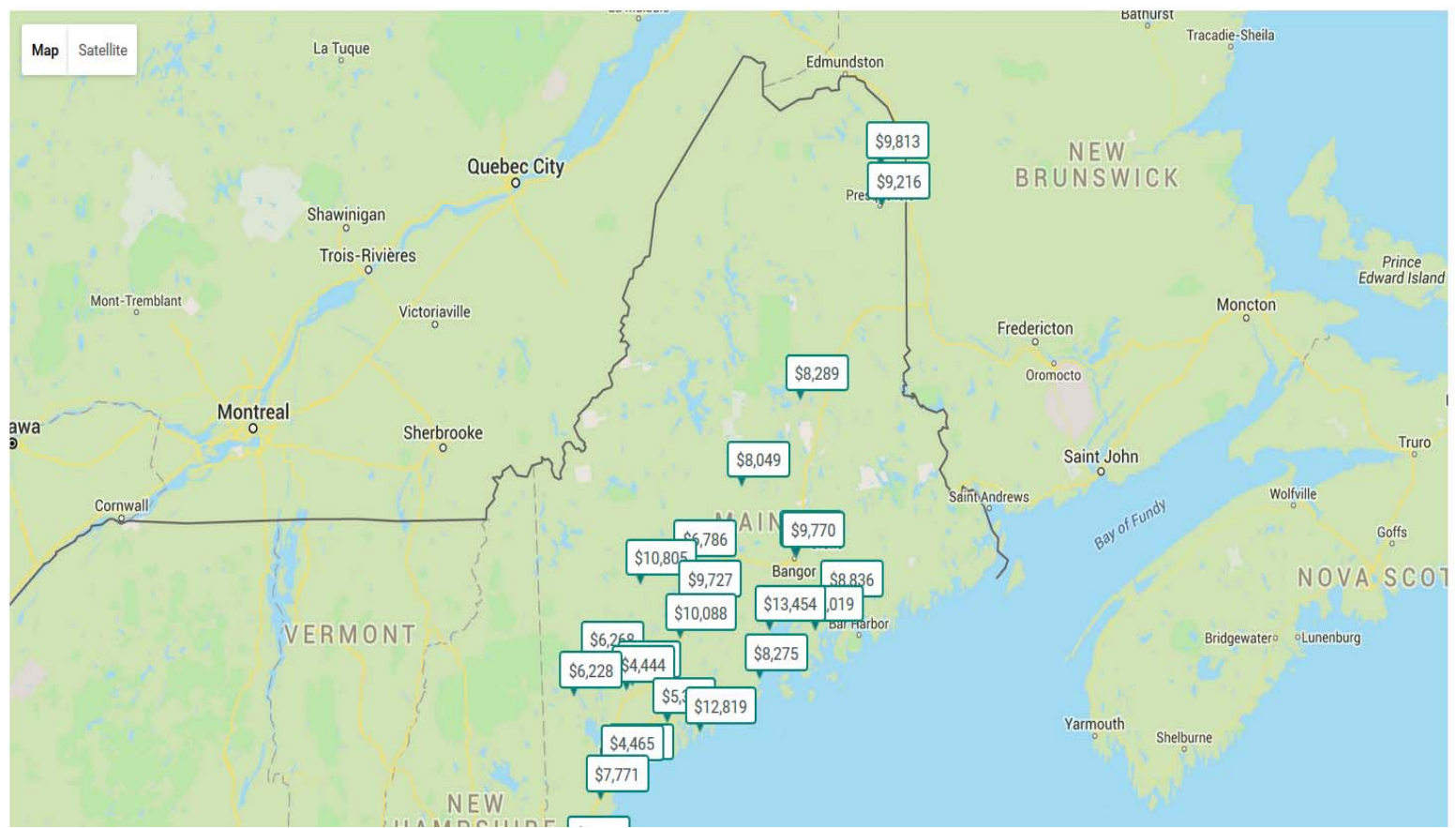
Site Map

[Home](#)

List Map

Learn About The Data

Search: within 25 miles of City or ZIP Code Search Show prices by insurance company: Show all insurance companies



Multiple CPT Codes Included: 29866, 29867, 29868, 29870, 29871, 29872, 29873, 29874, 29875, 29876, 29877, 29879, 29880, 29881, 29882, 29883, 29884, 29885, 29886, 29887

Blue Hill Memorial Hospital
57 Water Street Blue Hill, ME 04614

Bridgton Hospital
10 Hospital Dr Bridgton, ME 04009-1148

Cost Procedure

Average Cost of: Surgical arthroscopy of knee	\$9,019	\$6,228
Maine State Average	\$6,743	\$6,743

Quality Measures

Overall Patient Experience		
Maine State Average	N/A	N/A
Preventing Serious Complications	N/A	N/A
Rate per 1,000 eligible hospital discharges. A lower number is better.	N/A	N/A
Maine State Average	0.82	0.82
National Average	0.81	0.81

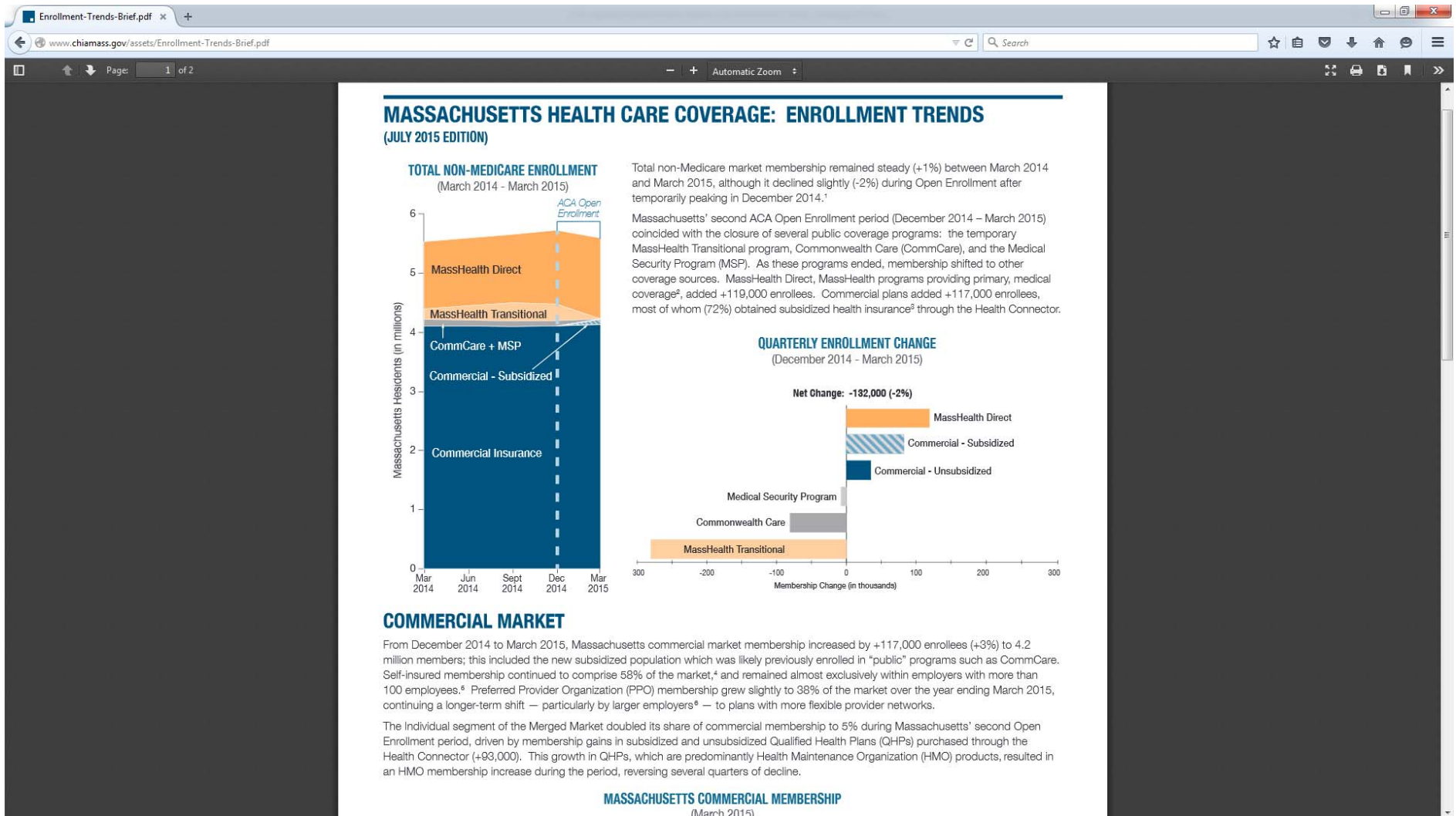
Preventing Healthcare-Associated Infections

Preventing Healthcare-Associated Infections (C. diff)		
Ratio of the number of infections in a facility over the expected number of infections. A lower number is better.	0.74	0.35
Maine State Average	0.55	0.55
National Average	1.00	1.00

- Evaluate vaccines claims data to assess completeness of an immunization registry (CO)
 - APCD provided a robust data source
 - Dose level and provider saturation at county level
 - Assessed completeness of state immunization registry
- Community Health Assessment in NH
 - Enhanced web modules for vital record, hospital use, BRFSS, etc.
 - Claims module generates public health indicators of interest (chronic, preventive care)
- Chronic Pain Management Analysis (MN)
 - 83,000 Minnesotans received chronic pain procedures in a 3 year period
 - Increased volume of procedures by 13.2 percent between 2010-2012
 - One procedure for every 19 persons

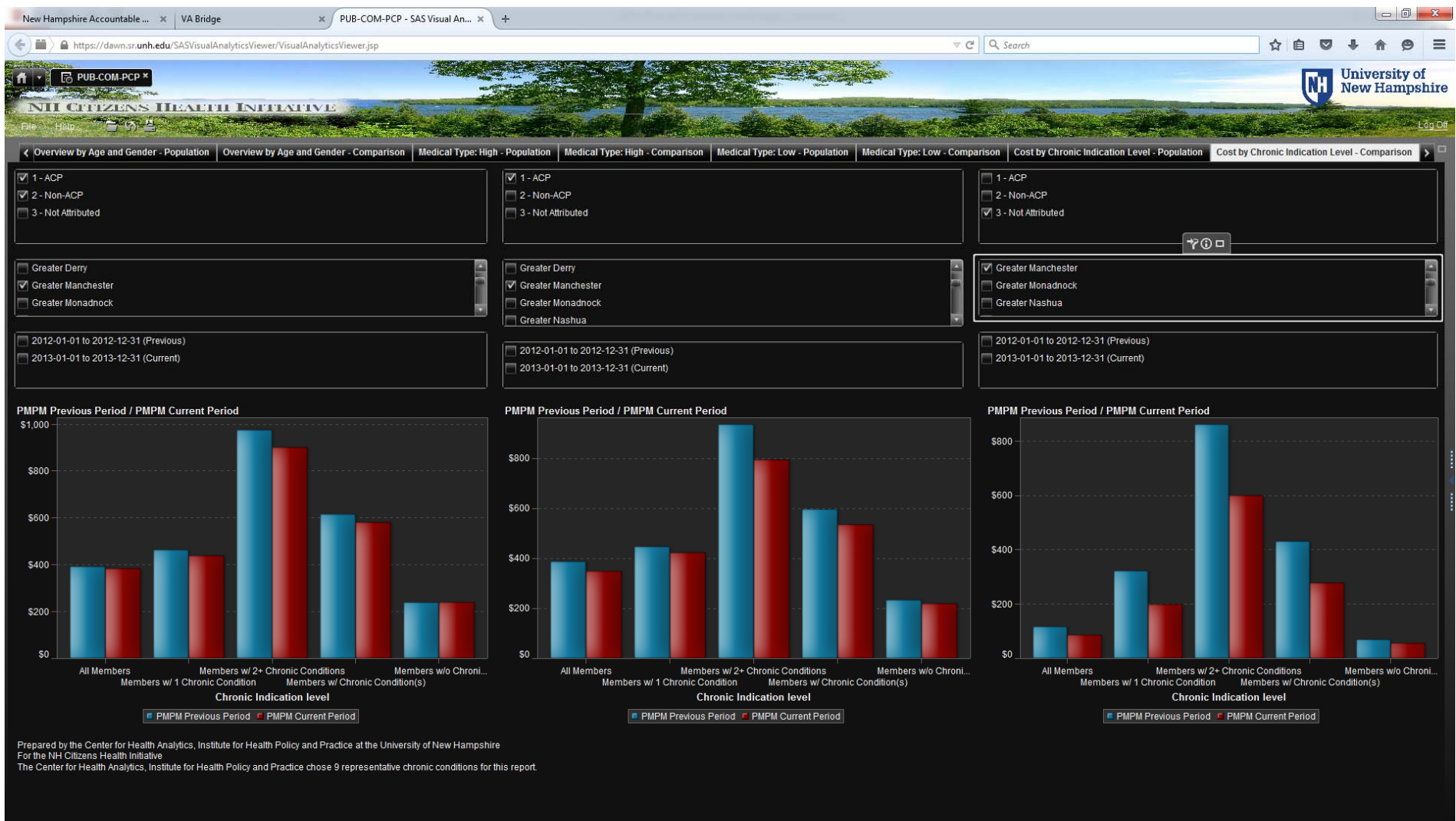
- Leading Indicators for Oregon's Health System Transformation
 - APCD represents 81% of Oregon's 4 million residents
 - Triple Aim goals: every dollar saved on unnecessary health expenses is a dollar that can be reinvested in children/families, education, jobs, etc.
 - Health System Transformation savings: \$139 million in health care costs 2013-2014
 - Total spend PMPM by Medicaid CCOs and Public Employees declined between 2011-2013

MA Health Care Enrollment Trends



Source: <http://www.chiamass.gov/assets/Enrollment-Trends-Brief.pdf>

NH Accountable Care Project



Source: www.nhaccountablecare.org

SCOTUS Hearing December 2, 2015

- Issue: If ERISA preempts a Vermont statute establishing a unified health care database and requiring health insurers to report health insurance claims, enrollment information, and other information relating to health care costs, prices, quality, utilization or resources to the database. VT. STAT. ANN. TIT. 18 § 9410(a)-(d).
 - Did 2nd District Court rule in error holding that ERISA pre-empts VT's health care data base law?
- Arguments in favor of Vermont:
 - Vermont's submissions typical of other state APCDs
 - Submissions not connected with Self-funded benefit schemes
 - Employers/business groups rely on aggregated claims data
 - Transparency is broadly accepted as essential to reforms
 - States have responsibility and history of aggregating health data

<http://www.scotusblog.com/case-files/cases/gobeille-v-liberty-mutual-insurance-company/>

- Develop Multi-Stakeholder Approach
 - Form Provider Relationships
 - Form Payer Relationships
- Be Transparent and Document
- Understand Uses and Limitations
- Seize Integration & Linkage Opportunities
- Develop Use Cases

Contact Information

Jo Porter
Co-Chair, APCD Council
Jo.Porter@unh.edu

Denise Love
Co-Chair, APCD Council
dlove@nahdo.org

Patrick Miller
Pero Group/APCD Consultant
patrick@perogroup.com

Emily Sullivan
Research, APCD Council
esullivan@nahdo.org

Ashley Peters
Communications and Research, APCD
Council
Ashley.Peters@unh.edu

Amy Costello
Standards, APCD Council
Amy.Costello@unh.edu

www.apcdouncil.org
www.apcdshowcase.org
info@apcdouncil.org
[@APCDCouncil](https://twitter.com/APCDCouncil)

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