All Payer Claims Datasets: Applications to Study Health Care Organization and Economic and Quality Outcomes

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The Comparative Health System Performance Initiative project

Objectives

• Classify and characterize types of health systems and compare their performance in terms of clinical and cost outcomes.
• Identify characteristics of high-performing health systems.
• Evaluate the role of PCOR in health system performance.
• Disseminate findings broadly to help diffuse PCOR evidence across health systems nationally.
HDSA Partners
Ongoing CHSP Projects

MHQP (Massachusetts):
- Assessing the relationships of Total Cost of Care, unit cost and use of services from 2013 to 2016 in system- and non-system affiliated practices.
- Examine the relationship between Practice Characteristics (from NSHOS Survey) and Patient Experience Survey results in Massachusetts.

Comagine (Oregon and Utah):
- Comparing Total Cost of Care, and additional measures, between system- and non-system affiliated practices in the states of Utah and Oregon.

CIVHC (Colorado):
- Pediatric Care Utilization, Spending and Quality for publicly and privately insured Children and young adults with different levels of medical complexity receiving care from system vs. non-system providers.
Sample Project: Specialization and Integration of Care for Medicaid Patients
Background and Motivation

Research Questions:
- Do Medicaid and commercially insured patients go to different or similar providers?
- Do Medicaid patients receive better or worse quality of care from providers who treat a lot of Medicaid patients?
  - Maybe yes: there is return to specialization in treating Medicaid patients (e.g. care management)
  - Maybe no: better reimbursement from commercial insurance may lead to greater investment in quality
Methods

Data

- CO APCD
- Enhanced Database (EDB)
  - The EDB compiles *managerial and financial ownership* information from a number of data sets, including the Medicare Provider Enrollment, Chain, and Ownership System (PECOS), Medicare Claims Data on Provider Practice & Specialty (M-PPAS), Sk&A, Irving Levin, & S&P Capital IQ M & A Transactions.

Patient attribution

- Attribute patient to PCP with the highest number of evaluation and management visits during a year
- Link PCPs to practices (TINs) and health systems using the EDB
Methods

Quantifying integration: Medicaid focus of providers

\[ \text{MedicaidFocus}_{ij} = \beta_1 \text{Medicaid}_i + \beta_2 X_i + \epsilon \]

- \( \text{MedicaidFocus}_{ij} \) is the share of all of patient \( i \)'s PCP \( j \)'s patients who are on Medicaid
- \( \text{Medicaid}_i \) indicates whether patient \( i \) is on Medicaid
- \( X_i \) are control variables that adjust for patient characteristics
Results

The graph shows the Medicaid share over the years from 2012 to 2016. The share remains relatively stable with minor fluctuations. The blue line represents commercial insurance, while the red line represents Medicaid. There is no significant adjustment noted in the data provided.
Results

Medicaid Share
Zip, age, gender, ethnicity adjusted

Year

Commercial Medicaid
Results

Care quality of Medicaid patients

<table>
<thead>
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<th>Screening Measures (%)</th>
<th>Ambulatory Care Sensitive Hospital Admissions (per 1000)</th>
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Results

Care quality of Medicaid patients who switched providers

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Dissemination effort

Local stakeholder engagement (dissemination and feedback)

- MHQP, Comagine, and CIVHC - established advisory bodies (e.g., governance committee, advisory boards) to disseminate the research findings and gather feedback.
- MHQP also used ad-hoc events and webinar to engage with specific stakeholder segments.
- Comagine is holding one-on-one interviews with key stakeholders in both Utah and Oregon.
- CIVHC will hold ad-hoc stakeholder feedback panels.

NRHI: The Network for Regional Healthcare Improvement (nrhi.org) will provide communication and dissemination support to promote the learnings from these studies nationally.