AHRQ Comparative Health System Performance Initiative
Annual Workshop

Presentation at AHRQ Headquarters
Rockville, Maryland

September 29, 2016

Mathematica Policy Research
Agenda for the Day

• Welcome (9:00–9:20)
• CoE updates and progress (9:20–11:00)

Break (11:00–11:10)
• Compendium plan overview (11:10-11:40)
• Using data to identify health systems, Part 1 (11:40–1:00)

Lunch (1:00–1:30)
• Using data to identify health systems, Part 2 (1:30–2:30)
• Beyond “definitions”: Measuring health system attributes (2:30–3:20)

Break (3:20–3:30)
• Measuring health system performance (3:30–4:15)
• Plans for products and dissemination activities (4:15–4:45)
• Reflections on the day and closing (4:45–5:00)
Welcome
Center of Excellence updates and progress
AHRQ Center of Excellence
Dartmouth–Berkeley–HVHC

Year 1 Progress and Year 2 Plans
September 29th, 2016
Rockville, MD
Overview

- Conceptual Model
- Center of Excellence Data Warehouse
  - Claims Data
  - Survey Data
  - Clinical Data
  - Market Data
- Health System Definition
- Distribution of Corporate Entities
- Progress Year 1, Plans for Year 2
- Year 2 Deliverables
Conceptual Model

Innovations

- Biomedical Innovations
- Care Delivery Innovations
- Patient Engagement Innovations

Organizations

- External Environment
  - Organizational Characteristics
  - Implementation Process and People

Adoption of Innovation

Impact on performance
Center of Excellence Data Warehouse

• Claims data
  • CMS claims, Medicare A, B, A/B, D for years 2006-2015
  • Commercial claims, e.g. large employer, medium employer, individual (HCCI)

• Survey data
  • National survey system, hospital and practice level data (n=5000) with 50% overlap
  • National Survey of ACOs (1-3, 4 pending)
  • National Survey of Physician Organizations (1-3)

• Clinical data
  • Clinical data from HVHC (12 high performing systems), linked to claims

• Market data
  • Demographic descriptions of markets across different geographies
  • ACO descriptions and coverage
Claims Data

- Claims data
- Survey data
- Clinical data
- Market data

- Medicare
  - 100% claims from Medicare Parts A and B, and a 40% sample from Part D (Part C not yet available)
  - Available for years 2006-2015 (54m+ beneficiaries)
  - Claims cover inpatient and outpatient medical care, skilled nursing facilities, hospice, home health, durable medical equipment, and prescription drugs
  - Includes additional beneficiary enrollment information including entitlement, managed care indicators, and demographics

- Medicaid

- Commercial
  - HCCI now available – currently in discussions with BHI, Truven, S&P
# Survey Data

- Claims data
- Survey data
- Clinical data
- Market data

<table>
<thead>
<tr>
<th>Domain</th>
<th>Subdomain</th>
<th>Example measure(s)</th>
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</thead>
<tbody>
<tr>
<td>Environmental factors</td>
<td>Perceived competition</td>
<td>Inpatient/Outpatient perceived competition</td>
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<tr>
<td>Organization attributes</td>
<td>Governance/Leadership</td>
<td>Physician leadership</td>
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<tr>
<td></td>
<td>Integration</td>
<td>Financial, Clinical, Structural, Relational integration</td>
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<td>Payment methods</td>
<td>Revenue / losses from shared savings, risk bearing</td>
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<td>Payment reforms</td>
<td>Prior and current participation in reform</td>
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<td>Organizational structure</td>
<td>Payer mix (Medicare, Medicaid, Commercial)</td>
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<td>Perceptions</td>
<td>Perceptions of ability to meet patient needs</td>
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<td>Policy reforms</td>
<td>Participation in AHCs/CPCI and CPC+</td>
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<td>Internal mechanisms</td>
<td>Physician compensation</td>
<td>Compensation models, employed and contracted</td>
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<td>Performance monitoring</td>
<td>Active monitoring of programs and MD performance</td>
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<td>Performance management</td>
<td>Use of registry / decision support for specific conditions</td>
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<td>Clinical performance reports</td>
<td>Clinical performance reports</td>
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<td></td>
<td>HIT capabilities</td>
<td>Number of EHRs, EHR functionality</td>
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<td>Evidence-based guidelines</td>
<td>Perceived barriers to adoption</td>
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<td>Characteristics of innovation</td>
<td>Pain management</td>
<td>Pain clinics, evidence-based pain management programs</td>
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<td>Care delivery</td>
<td>Behavioral health integration, high cost/high need care</td>
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<td>Patient engagement</td>
<td>Use of PROMs, Motivational interviewing, Shared Decision</td>
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<td>Making, and Shared Medical appointments</td>
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Clinical Data

- Claims data
- Survey data
- Clinical data
- Market data

HVHC is a provider learning network of 12 member organizations who share data and disseminate best practices for high value care.

<table>
<thead>
<tr>
<th>Founding Members</th>
<th>Collaborative Members</th>
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<tbody>
<tr>
<td>Dartmouth-Hitchcock</td>
<td>Baylor Scott &amp; White Health</td>
</tr>
<tr>
<td>Denver Health</td>
<td>Beth Israel Deaconess Medical Center</td>
</tr>
<tr>
<td>Intermountain Healthcare</td>
<td>Hawai’i Pacific Health</td>
</tr>
<tr>
<td>Mayo Clinic</td>
<td>Northwell Health</td>
</tr>
<tr>
<td>*The Dartmouth Institute</td>
<td>Providence Health &amp; Services</td>
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<td></td>
<td>Sinai Health System</td>
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<td></td>
<td>UC San Diego Health System</td>
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<td>Virginia Mason Medical Center</td>
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</tbody>
</table>

- Available data types include:
  - Administrative (e.g., ICD, CPT)
  - Clinical (e.g., EMR, pharma, lab)
  - Patient identifiers for linking member data to external sources

- Survey responses
  - Initial surveys completed 2016 (hip, knee, spine episodes; advanced illness & palliative care)
  - HVHC-specific adaptation of TDI CoE National Survey
HVHC Geographic Reach
# HVHC Strategic Priorities

## Projects by Program Area

<table>
<thead>
<tr>
<th>Population Health</th>
<th>Episode-Based Care</th>
<th>Safety Programs</th>
<th>Dissemination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Illness and Palliative Care Practice</td>
<td>Hip, Knee, Spine Surgery Best Practice</td>
<td>Iatrogenic Delirium Prevention</td>
<td>Sepsis 3hr Bundle Dissemination &amp; Implementation</td>
</tr>
<tr>
<td>Diabetes Visit Frequency Analysis</td>
<td></td>
<td>Sepsis Care for Patients with Congestive Heart Failure and/or Renal Failure</td>
<td>OpenNotes Project</td>
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<tr>
<td></td>
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<td>Meaningful Use Specialized Registry</td>
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<td>Maintenance of Certification for Providers</td>
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</tbody>
</table>
HVHC Data Warehouse

Clinical Data Availability

2012

- CMS Data (40M+ Beneficiaries)
- Hip Surgery Data (14K Encounters)
- Knee Surgery Data (25K Encounters)
- Spine Surgery Data (26K Encounters)
- Diabetes Monitoring Data (311K Patients)
- CHF Monitoring Data (70K Patients)
- Sepsis Encounter Data (60K+ Patients and counting)

2013

2014

2015

2016

2017

- Last Unified Spec Submission
- Continuing Sepsis Data Submissions
- HVHC All-Population Data Submission
- HVHC Cohort Data Submission (Continuing Hip/Knee/Spine)
- HVHC Cohort Data Submission (Advanced Illness, CMS Complexity Modifier, Meaningful Use Registry)

*CMS Claims, HVHC All-Population, and HVHC Cohort Data submissions continued 2017 and beyond
Market Data

- Claims data
- Survey data
- Clinical data
- Market data

- ACO Tracking Data
  - Information since 2010 on ACO geographic coverage, participants, number of lives at risk, degree of risk (upside-only, two-sided, capitation), and contact information
  - Provides historical snapshots of ACO prevalence and allows for longitudinal and geographic analysis

- Market & Demographic Data
  - Contains over a thousand variables on healthcare markets, organizations, and the general population
  - Categories include demographics, health data, provider and payer organizations, labor and economics, and financial performance
  - Contains both geographic and organization-specific information
Health System Definition

- The Dartmouth-Berkeley-HVHC CoE defines a “health system” as a corporate parent in HCOS that includes:
  - at least one hospital and group of physicians (3+ PCPs) or
  - at least one group of physicians (3+ PCPs)

- Rationale: a primary focus is to explore cost and quality performance for primary care populations; including large primary care and multispecialty groups that do not own hospitals is important

- We will also study:
  - Independent hospitals
  - Physician practices (linking back to National Survey of Physician Organizations)
Progress Year 1, Plans for Year 2

• Progress Year 1
  • JAMA article: A Potential Catalyst for Delivery System Reform
  • Developed, fielded, analyzed hip, knee and spine survey
  • Developed, fielded, analyzed appropriate use criteria survey (total joints)
  • Developed, fielded advanced illness survey
  • CMS DUA approved
  • Cross-walked HVHC member submitted data to CMS data

• Plans for Year 2
  • Explore synergies and opportunities with other CoEs
  • Complete and clean national survey (5,000 systems, hospitals and practices)
  • Link survey to claims, clinical data, HVHC data
  • Begun to define papers to be completed Year 2 (next page)
<table>
<thead>
<tr>
<th>Year 2 Papers</th>
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</thead>
<tbody>
<tr>
<td><strong>Data Core</strong></td>
</tr>
<tr>
<td>• Deriving a survey design with sampling probabilities and quantity of surveys depending on the size and composition of the survey units</td>
</tr>
<tr>
<td>• Variation and trends in quality and cost across U.S. health systems</td>
</tr>
<tr>
<td><strong>Project 1</strong></td>
</tr>
<tr>
<td>• What external factors predict value-based payment?</td>
</tr>
<tr>
<td>• Describe spectrum of integration in ACOs</td>
</tr>
<tr>
<td><strong>Project 2</strong></td>
</tr>
<tr>
<td>• What does population health mean to healthcare providers? A mixed methods study</td>
</tr>
<tr>
<td>• What mechanisms do ACOs use to align front line physician initiatives with the ACO’s goals?</td>
</tr>
<tr>
<td><strong>Project 3</strong></td>
</tr>
<tr>
<td>• Are there patterns in the adoption of evidence-based appropriateness criteria for selected conditions (hip, knee)?</td>
</tr>
<tr>
<td>• How do care patterns change following adoption of bundled payments for selected conditions (hips, knees)?</td>
</tr>
<tr>
<td>• Are there patterns in the use of evidence-based high-value and low-value procedures for selected conditions and what outcomes are associated with these patterns?</td>
</tr>
</tbody>
</table>
### Year 2 Deliverables, Part 2

| Project 3 | • What is the impact of policy, public health and local experience on the implementation of next generation opioid prescribing practices?  
|           | • Is there adherence to sepsis bundle intervention while facing an evolving evidence base? |
| Project 4 | • Where and how are care delivery innovations (ie care transition programs and integrated behavioral health) being implemented?  
|           | • Where do patients get their care, and how many patients are truly getting their care from integrated systems? |
| Project 5 | • To what extent is practice-level adoption of shared decision-making interventions for patients with preference sensitive conditions associated with better experiences of chronic illness care?  
|           | • To what extent is patient-level exposure to shared decision-making interventions associated with lower overall health care costs for patients with preference sensitive conditions? |
| Taxonomy  | • Do patients receiving care from physicians associated with different kinds of systems have better outcomes?  
|           | • Do patients receiving care from physicians associated with systems that are both highly differentiated and highly integrated have better outcomes? |
Clarifying questions?
NBER CoE: The Structure of Health Systems

David Cutler, Harvard and NBER (Overall PI)
Nancy Beaulieu, Harvard (PI of Data Core)

September 29, 2016
Overview

- Mapping Health Care Delivery Systems 2013
- Performance Measures
- Challenges & Next steps
# Enhanced Database Components

<table>
<thead>
<tr>
<th>Provider Databases (characteristics)</th>
<th>Linking Databases</th>
<th>Other Databases</th>
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</thead>
<tbody>
<tr>
<td>Health Systems</td>
<td>Health system components</td>
<td>Market characteristics</td>
</tr>
<tr>
<td>Physicians</td>
<td>Hospital System components</td>
<td>Community characteristics</td>
</tr>
<tr>
<td>Practice Sites and Medical Groups</td>
<td>Medical Groups (physicians)</td>
<td>State (for policies)</td>
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<tr>
<td>Hospitals (+ ASCs)</td>
<td>PAC and dialysis systems/ chains</td>
<td>Patient flows</td>
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<tr>
<td>Long-term care facilities</td>
<td>NPI-TIN</td>
<td>Hospital M&amp;A</td>
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<tr>
<td>Skilled nursing facilities</td>
<td>ACO participants</td>
<td>Physician practice M&amp;A</td>
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<tr>
<td>Inpatient rehab facilities</td>
<td>Market definitions</td>
<td>Health system M&amp;A</td>
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<tr>
<td>Home health agencies</td>
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<tr>
<td>Dialysis facilities</td>
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<tr>
<td>Hospice companies</td>
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<tr>
<td>ACOs</td>
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</table>
Physician Database
Schema for Physician Organization Data

Potential Owners:
Physician Group
Hospital
Health System

SK&A

Owner

PECOS

ACO

SK&A

Practice Site

Medical Group

Welch AMCs,
Physician Compare

TIN

MD-PPAS,
<Commercial Insurer>

SK&A, Commercial Insurer, MAX-PC, Doximity, NPPES, Physician Compare, Medicaid, MD-PPAS

Data already accessible are in bold
Physician Database

- Unit of observation is a physician
- Not all physicians in our data sources have an NPI (yet):
Select Variables in Physician Database

- Not all physician observations have complete data – depends on data source
- NPPES and Doximity can fill in some gaps

<table>
<thead>
<tr>
<th>Variable</th>
<th>SK&amp;A</th>
<th>MD-PPAS</th>
<th>Commercial Insurer</th>
<th>Physician Compare</th>
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<tbody>
<tr>
<td>MD Name</td>
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<td>Practice Site</td>
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<td>Group Practice</td>
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<tr>
<td>TIN</td>
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<td>Specialty 1</td>
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<td>Specialty 2</td>
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<td>?</td>
<td>X</td>
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<td>Hospital affiliation</td>
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<tr>
<td>System Ownership</td>
<td>X</td>
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</table>
Physician Organization Measures

- SK&A

- Physician Compare
  - Based on PECOS
  - NPIs in multiple groups, Group may be > site
  - Snapshot and update on quarterly basis beginning March 2014
  - Imperfect match to TINs
Hospital Database
Hospital Database

- Develop a comprehensive list of unique hospitals
- Gather/generate characteristics of hospitals
- Link to physicians
  - Hospital ownership of group practices (SK&A, Medicare claims)
  - Physician affiliations (SK&A, Physician Compare)
- Link to AHA and SK&A systems
Outline of Acute Care Hospital Data

Potential Owners:
- Group
- Hospital Corp
- Health System

Owner

SK&A, AHA, HCRIS

Hospital or AHA Unit *

DRG & Medicare

SK&A, PECOS, HCRIS, MD-PPAS

ACO

AHA

SK&A

HCRIS

Physician Practices

* Physical location
AHA Survey Data

- Captures most hospitals in U.S.
- Approximately 700 hospitals respond to survey in small groups (parent-units) instead of individually
- AHA system definition: A system is a corporate body that owns, leases, religiously sponsors and/or manages health providers
A Set of Unique Hospitals in 2013

- Data Sources: AHA survey, SK&A, HCRIS
- Matched AHA hospitals to SK&A hospitals
- Still looking to match 181 HCRIS hospitals
Health System Database
Two approaches to systems

AHA & SK&A Health Systems

Hospitals

Physician Group Practices

Physicians
Top Down Approach

- Data Sources: SK&A and AHA
- HCRIS
  - Post-Acute Long term care chains
  - Home office?
- Definitions
  - **SK&A definition:** provider organizations owned by common corporate entity
  - **AHA definition:** A system is a corporate body that owns, leases, religiously sponsors and/or manages health providers
Rich Diversity of Systems

- “Classic” integrated health systems
  - E.g. Kaiser, Mayo
- Hospital companies that have acquired physician practices
  - E.g. HCA, Tenet
- Academic Medical Centers that have grown
  - E.g. Partners Health Care, Johns Hopkins
- Church sponsorship
  - E.g. Ascension, Trinity, Mercy, Baptist
- New type of systems
  - Joint ventures
  - Clinically integrated networks
Regional sub-systems

M&A: if systems merged Jan-June, include as post-merger system in 2013

* Mostly nursing home chains and group purchasing organizations
Health System Composition

- Hospital, physician, other
- PAC, Academic Medical Center, Insurance
- Based on SK&A 2013 system data:
Bottom-Up Approach

- Identify physician group practices as a set of physicians billing under a common set of TINs
- Two different relationships among physicians we will leverage:
  - **Physicians billing through common TINs**: MD-PPAS, Welch’s groups, & (soon we hope) commercial insurer
  - **Physicians practicing together at same site/group**: SK&A, Physician Compare, Welch
- Beginning with MD-PPAS, identify pairs of TINs with large percentage of billing by NPIs associated with both TINs. Combine TIN pairs with a common TIN (e.g. \{A, B\} with \{B,C\})
- Compare sets of TINs with physician groups in SK&A, Physician Compare and Welch’s list
- SK&A: system assignment of physicians practicing at same site

  Still working this out
Challenges and Next Steps
Challenges and Next Steps

- Too many independent medical groups
- Missing NPIs
- Capturing JVs (multiple TIN owners) and CINs
- Physicians in more than one system possible
Clarifying questions?
RAND Center of Excellence on Health System Performance: Update

Cheryl Damberg, Susan Ridgely & José Escarce

September 29, 2016
Goals of RAND’s Center of Excellence

• Identify, classify, track, and compare health systems in today’s complex health care markets

• Identify characteristics of high-performing health systems
  – Defined as health systems that can more effectively translate new research evidence into routine clinical practice
Center’s Organization: Data Core and Four Interrelated Study Teams

- Health IT (functionalities)
- Safety net (strategies to expand access, improve coordination)
- Data Core & Library
- Financial and nonfinancial incentives (what works?)
- Organizational integration (does it translate to integration of care?)
RAND’s Definition of a Health System

• Two or more health care organizations affiliated with each other through shared ownership or a contracting relationship for payment and service delivery

• A health system must have:
  – at least 1 acute care hospital
  – at least 1 physician organization

• “Specialty-only” systems are excluded (e.g., cardiac, cancer, orthopedics, pediatrics)
Purpose of Our Analyses

• Identify health systems in the regions for which we have performance data

• Enable sampling of physician organizations (POs) for “deep dive” data collection

• Contribute information to AHRQ compendium of systems

• Gather information about attributes of health systems to support taxonomy work
Secondary Data Sources: Minnesota, Wisconsin, and Washington

• Health Market Review (Baumgarten)
  – Large systems in each state, affiliated hospitals, number of affiliated physician organizations, counties of operation

• American Hospital Association Annual Survey of Hospitals
  – Hospital-level information on system membership

• CMS Physician Compare
  – Physician-level information on members

• SK&A Physician Database
  – Physician-level information on physician organization and system membership
Methods for Minnesota, Wisconsin, and Washington

• Used Health Market Review to identify health systems affiliated with POs that report performance data to our partners

• Matched physicians to POs to link information from S&KA to performance data: identify additional systems, number and specialties of physicians, affiliated hospitals

• Matched physicians to POs to link information from CMS Physician Compare to performance data: number and specialties of physicians

• Used AHA Survey to verify and enhance list of hospitals affiliated with health systems
Secondary Data Sources: California

• California Department of Managed Health Care (DMHC)
  – Group-level information on health system membership

• California Office of the Patient Advocate (OPA)
  – Group-level information on number and specialties of physicians and affiliated hospitals

• Cattaneo & Stroud Medical Group Reports
  – Group-level information on numbers and specialties of physicians
Methods for California

• Used Department of Managed Health Care data to identify health systems affiliated with POs that report performance data to our partner

• Matched DMHC identification numbers to link information from OPA to performance data: number and specialties of physicians, affiliated hospitals

• Matched names of POs to link information from Cattaneo & Stroud to performance data: number and specialties of physicians
Identifying Health System Attributes

• Identify domains and variables (health system, PO, and hospitals)

• Define the variables/identify metrics

• Can the variables be obtained from secondary data?
  – Health care (AHA, SK&A, MD-PASS, HIMSS)
  – Business (Bloomberg, D&B, M&A)
  – News (Lexis/Nexis)
  – State regulatory agencies

• Which variables might predict high performance?
Identifying Data for Measuring Health System Performance

• Gather performance data from regional partners
  – HEDIS
    • Preventive, acute, and chronic care
  – CAHPS
  – Total cost of care (2 regions)
  – Resource use (ED utilization, generic Rx, readmits, etc.)

• 3 regions have measures at PO and practice site level; one region has data only at PO level
Constructing Performance Measures

- Cross walk measure sets to identify common measures across regions
- Construct performance measures (HEDIS, outcome measures) using secondary data
- Construct an overall measure of health system performance
  - What dimensions of performance are measured?
  - How are they combined?
  - What level of performance is required to be “high performing?”
Clarifying questions?
Discussion/other questions?
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Compendium plan overview
AHRQ’s goals for the compendium

• Primary objective of CHSP: promote broad dissemination of information on the characteristics and practices of high-performing health systems
  – Particularly those practices focused on the use of patient-centered outcomes research (PCOR)

• Additional goals:
  – Synthesize findings on the association between health systems’ performance and the use of PCOR
  – Enable users to access health system data and information about practices aimed at improving patients’ outcomes
  – Interactive website will house information in a variety of formats, including a research linkage file
Audience for the compendium

• Primary audience: the research community aiming to inform health care policy and practice

• Others:
  – Health system leaders and managers seeking to better understand how their systems compare to others
Compendium plan

- Web-based resource to allow users to access data on health care systems and their practices to improve patients’ outcomes

Coordinating Center’s Compendium for Comparative Health System Performance

**Informational Resources:**
- CoE fact sheets
- Issue briefs and white papers
- Best practice documents
- Synthesis of literature
- Case studies

**Data Resources:**
- Guide to data sources
- Data tables
- Research-ready data files
- Data file documentation
Using data to identify health systems
Agenda: Using data to identify health systems

• Hear from work by AHRQ and the 3 CoE teams
• Review lessons learned, challenges, successes
• Discuss options for summarizing (and disseminating) lessons learned
• Next steps for the data workgroup
Guide to data sources

• Develop user-friendly tool summarizing data sources
  – Data owner
  – Cost
  – Data time period
  – Key data elements
  – Linkability
Next steps for Data Workgroup

- Serve as forum to collectively develop manuscript?
  - Describe data sources and steps involved to identify parent system and attribute physicians and hospitals

- Explore opportunities across CoEs to share early findings in identifying systems

- Discuss ongoing data issues
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- Plans for products and dissemination activities (4:15–4:45)
- Reflections on the day and closing (4:45–5:00)
Using data to identify health systems, Part 2
Agenda: Using data to identify health systems, Part 2

• Discussion of other definitions of health systems
• Potential data sources
• Next steps
Other health system concepts of interest to CoEs

- Interested in multiple levels within a system (e.g., individual practices, physician organizations) (Dartmouth)
- Contractually integrated organizations (e.g., ACOs) (NBER)
- Informal care systems, such as common referral arrangements (NBER)
- Organizations can be members of multiple health systems, such as a physician organization that participates in more than one ACO (RAND)
Coordinating Center literature review on health systems definitions

• Objective
  – Assemble definitions of health systems

• Approach
  – Snowballing approach based on initial set of literature
  – Inclusion criteria: seminal pieces; otherwise, pieces from 2007 forward; US only
  – Qualitative analysis of health system definitions, including their defining characteristics and types of providers and organizations included
  – Planned:
    • Deeper dive into the characteristics of systems
Next steps in defining health systems

- Identify key gaps in the literature relevant to defining and characterizing health care systems
- Finalize issue brief
- Consider opportunities for a collaborative manuscript on “defining health systems”
Agenda for the Day

- Welcome (9:00–9:20)
- CoE updates and progress (9:20–11:00)

Break (11:00–11:10)

- Compendium plan overview (11:10-11:40)
- Using data to identify health systems, Part 1 (11:40–1:00)

Lunch (1:00–1:30)

- Using data to identify health systems, Part 2 (1:30–2:30)
- Beyond “definitions”: Measuring health system attributes (2:30–3:20)

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Beyond definitions: Measuring health system attributes
One AHRQ-funded framework for describing organization characteristics

• Capacity
  – Physical assets, capital assets, services

• Organizational structure
  – Configuration, leadership structure and governance, research and innovation, professional education

• Finances
  – Payment received, provider payment systems, ownership, financial solvency

• Patients
  – Patient characteristics, geographic characteristics

• Care processes and infrastructure
  – Standardization, performance measurement, health information systems, care team, clinical decision support, care coordination

• Culture
  – Patient centeredness, cultural competence, competition-collaboration continuum, community benefit, innovation diffusion, working climate

Another AHRQ-funded framework for influences on evidence-based recommendations

Adapted from Reschovsky et al Factors Contributing to Variations in Physicians’ Use of Evidence at The Point of Care. JGIM August 2015
Key attributes noted by TEP

• Presence of unified electronic communication/ health IT system
• Presence of a “parent” organization
• Degree to which decision making is centralized or decentralized
• Degree to which the system provides care along the continuum and across specialties
• Financial integration and alignment of incentives
• Multiple levels of influence within health systems
• Contractual relationships
Priorities for work on health system attributes—given “working definition”

• Foundation model?

• “Comprehensive care”—Specialty composition?

• Other health systems attributes to use for near-term reports (short-term goal of the compendium)?

• Characterizing “integration” in health systems

• “Market” for health systems
Market environment

• At the May meeting, noted the need to develop a “shared language” re market characteristics

• Several potential considerations noted
  – “Traditional” metrics for market competitiveness/consolidation (Payers; providers)
  – Provider competition on what? (Primary care, specialty care, hospital care, specific specialized services?)
  – Provider competition where? (Within MSA? Within local region? Multi-state-region? National?)
Health system attributes: Markets

• Describe aspects of three example health systems
  – Organizational structure
  – Historical roots
  – Payers
  – Providers
  – Services offered
  – Size and reach

• Consider market attributes from a health system perspective
Example Health System: Kaiser Permanente

• Large vertically integrated healthcare system comprised of Kaiser Foundation Hospitals, the Kaiser Foundation Health Plan, and the Permanente Medical Group
  – founded in 1945
  – Operates in 7 markets
  – Annual operating revenue >60 billion

• Payer mix: Kaiser Foundation Health Plans

• Health care services generally include: primary care, specialty care, hospital, laboratory and pharmacy services
  – Featured clinical programs in cancer care, cardiac care, stroke care, and diabetes care
  – Available specialized services
    • Gamma knife: yes
    • Spine care: yes
  – Service availability: varies by region
  – Direct access to specialty care: no

• Gamma knife: yes
• Bone marrow transplant: yes
• Spine care: yes
• Robot-assisted prostate surgery: yes

– Service availability: varies by region
– Direct access to specialty care: no
• Since 1973 they’ve used a computerized medical record for all patients
  – Previous homegrown EHR replaced with EPIC in 2004

• Promote multiple ways to access care: online, phone, email, and in person

• Operates in seven local markets
  – Northern California, Southern California, Colorado, Georgia, Hawaii, Mid-Atlantic States, Northwest

• Comprised of:
  – 38 hospitals
  – 630 medical offices
  – More than 18,000 physicians, 51,000 nurses and 190,000 employees
Example Health System: Catholic Health Initiatives

• National faith-based nonprofit formed in 1996 through the consolidation of four catholic health systems
  – Annual operating revenue of 15.2 billion
  – Facilities in 19 states

• Payer mix
  – 40% managed care 11% Medicaid
  – 34% Medicare 6% commercial

• Health care services generally include: primary care, specialty care, hospital and laboratory services
  – Featured clinical programs in oncology, orthopedic and spine care, and cardiovascular care
  – Example specialized services
    • Gamma knife: yes  Bone Marrow transplant: yes
    • Spine care: yes  Robot-assisted prostate surgery: yes
  – Service availability: varies by region
  – Direct access to specialty care: yes
Example health system: Catholic Health Initiatives

• Recently developed 12 “clinically integrated networks” to promote new models of care
  – Networks partners affiliate hospitals with its employed physicians and community providers to improve efficiency and provide the full spectrum of services
  – Promotes home visits and virtual health

• Comprised of:
  – 103 hospitals in 19 states, including four academic health centers and 30 critical-access hospitals
  – Other health care services include community health service organizations, home health agencies, and long term care facilities
  – Also includes 10 insurance plans /100,000 covered lives
  – 95,000 employees including 3,950 employed physicians and advanced practice clinicians
Example health system: Southern Illinois Health Care

- Regional integrated healthcare system begun in 1938 by two physicians
  - Acquired first hospital in 1946
  - Annual operating revenue of 528 million
  - 7 county area of southern Illinois

- Payer mix (in the service area)
  - 33% employer sponsored
  - 16% Medicare
  - 30% Medicaid
  - 11% uninsured

- Health care services include: primary care, specialty care, hospital and laboratory services
  - Featured clinical programs in cancer, heart and vascular, rehabilitation, and joint replacement
  - Example specialized services
    - Gamma knife: *no*
    - Bone Marrow transplant: *no*
    - Spine care: *yes*
    - Robot-assisted prostate surgery: *yes*
    - Direct access to specialty care: *yes*
Example health system: Southern Illinois Health Care

• Joined the BJC Collaborative in 2013, a partnership among health care systems throughout Illinois, Missouri and Eastern Kansas
  – While remaining independent, BJC Collaborative members work together to improve access to and quality of medical care for patients
• Operates in Southern Illinois, serving a seven county area/population of ~340,000
• Comprised of:
  – SIH Medical Group consisting of 200 providers in primary care and specialty care practicing in physician offices, outpatient clinics and four walk-in clinics
  – Three inpatient hospitals located within 19 miles of one another
  – 3,400 employees
Some characteristics of health system “market”

- Demographics

- Organization of health care services
  - Clinicians
  - Hospitals
  - Other community resources

- Other local market factors (for example)
  - The presence and focus of local multi-stakeholder initiatives
  - Local employer dominance and expectations
  - Local payer dominance, reimbursement models/ payment arrangements
  - Payer rate differences (Commercial, Medicaid)
  - Level of per capita health care spending and utilization
  - Malpractice environment
  - Community roots (e.g., some health systems have long histories in their communities)
Discussion/questions

• Other features relevant to understanding the “market” for a health system?

• Key challenges in defining market characteristics for health systems?

• Value in developing a bibliography on characterizing the “market” for health care systems?
Next steps for work group on health system characteristics?

• Identifying Foundation model systems?
• Defining “Comprehensive care:” Specialty composition?
• Identifying other key health systems attributes to use for near-term reports
• Characterizing “integration” in health systems?
• Exploring challenges in defining market characteristics for health systems?
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Measuring health system performance
Proposed process

• Identifying common measurement topics
• Review planned measures by topic area
• Discuss opportunities for harmonization*

*NOTE: We recognize that the ability to compare results will depend on the data source that is used and the time period from which the data is derived
## Topics identified during July call

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Data sources

• Alignment of data sources
  – Claims (Medicare, commercial)
  – PQRS scores
  – CAHPS results (Medicare, commercial, other)
  – Other?

• Alignment of data collection time frame
Next steps for future work group discussion on performance measures

• Finalize core set of measures
• Consider data sources
• Identify “efficiency” and “quality” constructs to use in review of literature – gaps in evidence regarding “health systems”
Plans for products and dissemination activities
Agenda: Plans for products and dissemination activities

• CHSP initiative website demonstration and future plans

• Review day’s discussions on the Compendium and pipeline of products for dissemination
CHSP website demo

• Initiative’s website content will evolve as new resources become available

• Home page
  – Highlight new products
  – Spotlight areas of high interest to key stakeholders

• Future content
  – Reports and briefs
  – Topical bibliographies
  – Multimedia
  – Data Compendium
    • Data visualizations
    • Data dashboard

• http://www.ahrq.gov/chsp
Next steps for dissemination activities

- Compendium development
- Products pipeline
- Public “Launch”
  - Website
  - Webinar
Reflections on the day/next steps
Thanks!!