Medicare Advancing Care Coordination through Episode Payment Models (EPMs)

On December 20, CMS announced its final rule expanding the Comprehensive Care for Joint Replacement (CJR) model to include hip fracture care and creating episode payment models (EPMs) for high-quality, coordinated cardiac care. The expansion of CJR will be referred to as the Surgical Hip and Femur Fracture Treatment (SHFFT) Model, and the EPMs include the Acute Myocardial Infarction (AMI) Model, Coronary Artery Bypass Graft (CABG) Model, and Cardiac Rehabilitation (CR) Incentive Payment Model. The CR Incentive Payment model offers a payment incentive to encourage greater use of cardiac rehabilitation services. Under the EPMs, hospitals in 98 randomly selected metropolitan areas admitting patients for a heart attack or bypass surgery will be accountable for the cost and quality of care provided to Medicare fee-for-service (FFS) beneficiaries. This includes payment for all related services during the inpatient stay and almost all Part A and Part B services provided in the 90 days after discharge.

Of note for rural providers:

- Many rural hospitals (e.g. critical access hospitals (CAHs)) are excluded from the models as the admitting inpatient hospital, though Medicare-dependent hospitals (MDHs), rural referral centers (RRCs), sole community hospitals (SCHs), and certain low-volume hospitals will participate with limited protections against financial losses.
- CAHs as well as physicians, non-physician practitioners, skilled nursing facilities (SNFs), and accountable care organizations (regardless of geographic location) may act as EPM collaborators in providing post-discharge care.
- CMS clarifies that all collaborators will be paid under their usual Medicare FFS payment systems throughout the model. For CAHs, this means the usual cost-based reimbursement scheme.
- As in the CJR model, CMS will waive the requirement for a three-day inpatient hospital stay prior to admission for a covered SNF stay in the AMI Model, but only if beneficiaries are admitted to SNFs rated at least three stars on the Nursing Home Compare Five-Star Quality Rating System (QRS). Swing beds at either CAHs or rural PPS hospitals will not be eligible for the waiver of the SNF three-day rule as these providers do not receive QRS star ratings.

As finalized, CMS is delaying downside risk until January 2019 (i.e., inpatient stays beginning October 2018), though participating EPM hospitals may opt in to repay the difference between episode costs higher than the target price beginning January 1, 2018. The EPMs are set to begin July 1, 2017, without downside risk, and will continue through December 31, 2021. For more information, see the CMS fact sheet.
Final Hospital Notice and Instructions – for implementation March 8

The Centers for Medicare & Medicaid Services (CMS) posted its final version of the Medicare Outpatient Observation Notice (MOON), which is a standard notice that all hospitals and critical access hospitals (CAHs) must issue (starting March 8) and explain to all Medicare beneficiaries receiving outpatient services for more than 24 hours. Under the Notice of Observation Treatment and Implication for Care Eligibility (NOTICE) Act of 2015, hospitals and CAHs must issue the MOON within 36 hours of the start of observation services, or sooner if the beneficiary is transferred, discharged, or admitted as an inpatient. The MOON informs beneficiaries that they are an outpatient receiving observation services, not an inpatient, and explains the associated implications for cost-sharing and eligibility for Medicare coverage of skilled nursing facility services.

CMS also updated instructions for the MOON to address several issues, including formatting requirements, what to do when a beneficiary refuses to sign, and the intersection with applicable State laws. For instance, hospitals and CAHs may (1) deliver the MOON before the beneficiary receives 24 hours of observation services and/or (2) attach an additional page to the MOON in order to comply with any applicable state laws.

OIG Revisions to the Safe Harbors Under the Anti-Kickback Statute – Final Rule

The Office of the Inspector General for the U.S. Department of Health & Human Services recently issued a final rule that eases the ability to provide free or discounted transportation services for health care. Under the rule, Federal health care programs arranging service from local transportation providers are granted a “safe harbor” exemption from the anti-kickback statute, which prohibits offering, soliciting or accepting of any type remuneration for referral to a federal health care program business.

Significant policy changes for rural providers include:
• New safe harbor to protect free or discounted local transportation services provided to Federal health care program beneficiaries in order to obtain medically necessary items or services.
  o Allows for transportation to a provider or supplier of services and back to a patient’s home (air, luxury or ambulance transportation excluded)
  o Permits shuttle service
  o Sets a 25-mile limit for patients in urban areas and 50-mile limit for patients in rural areas.
• Eligible entities (or the provider or supplier to whom the patient is transported) not required to be in a rural area.
  o Does not have to require that transportation be planned in advance
  o Can use vouchers rather than having the transportation provided directly by the eligible entity
• Patients are those who selects and initiates contact with a provider or supplier to schedule an appointment.
Using FMT Tools to Monitor Population Health Performance

John Gale, MS
Maine Rural Health Research Center, U. of So. Maine

February 15, 2017 | TASC 90 Call
Community Responsive Hospital

- Expanding from delivery of medical care to the role of hospital in the following:
  - Community issues (substance abuse, domestic violence)
  - Critical health issues (oral health, mental health, obesity)
  - Health care equity (barriers to access, health disparities)
  - System barriers (limited public health infrastructure)
  - Community's role in process (involve residents in addressing above issues, reducing risky behaviors)

From: *Where Do We Go from Here? The Hospital Leader’s Role in Community Engagement* (2007) by the Health Research and Educational Trust.
Using Community Measures

• The community measures set was developed to provide:
  – A framework for CAHs to benchmark their community activities against other hospitals
  – A contextual description of the socioeconomic, environmental, and health challenges of the communities in which CAHs operate
  – Data to monitor program impact on improving in areas of concern common to many rural communities
  – Developmental process – seeking to test and refine
FMT Measures Framework

• **Charity care and bad debt**
  – Measures the broad uncompensated care activities of CAHs as a percentage of adjusted revenue

• **Health improvement, essential health services, and community benefit activities**
  – Availability/provision of provision of key wellness, prevention, and essential community services
  – CAH implementation of strategies to improve care to culturally/linguistically-diverse
FMT Measures Framework

• **Community Health Needs and Issues**
  – Measures the community context in which CAHs operate
  – Socioeconomic factors
  – Environmental factors
  – Health outcomes
  – Health behaviors
  – Clinical care and access to care
Community Health Improvement and Benefit

• Charity care and bad debt
  – Charity/discounted care as a % of adjusted revenue
  – Bad debt as a % of adjusted revenue
Community Health Improvement, Essential Services, & Community Benefit Activities

2a. Essential services
- Wellness and prevention
- Tobacco treatment/cessation
- Dental services
- Indigent care clinics

Immunization
Substance use services
Primary care access/RHCs
Urgent care clinics

2b. Diversity planning
- Plan to develop, execute or evaluate a diversity strategy or plan?
- Cultural/linguistic diversity for patient care
- Strategic plan included goals for improving quality of care of culturally/linguistically-diverse patient population
Community Health Needs and Issues

3a. Socioeconomic factors
- High school graduation - % 9th grade cohort that graduates in 4 yrs
- Unemployment - % population =/>16 unemployed but seeking work
- Children in poverty - # children < 18 in poverty

3b Environmental issues
- Recreational facilities - Rate of facilities/100,000 population
- Limited access to health food - % population who are low-income and do not live close to a grocery store
Community Health Needs and Issues

3c: Health outcomes
– Premature death - Yrs of potential life lost before age 75/100,000 population
– Poor or fair health - % of adults reporting fair or poor health
– Low birth weight - % of low birthweight live births -/< 2500 grams

3d: Health behaviors
– Adult smoking - % adults that report smoking >/= 100 cigarettes and currently smoking
– Adult obesity - % adults that report a BMI >/= 30
– Physical inactivity - % adults aged 20/over reporting no leisure time physical activity
– Excessive drinking - % adults reporting binge plus heavy drinking
Community Health Needs and Issues

3d: Health behaviors
- Motor vehicle crash death rate - Crash deaths/100,000 population
- Sexually transmitted infections - Chlamydia rate/100,000 population
- Teen birth rate - Teen birth rate/1,000 females, ages 15-19

3e: Clinical care and access to care
- Primary care physicians - Ratio of population to PC physicians
- Dentists - Ratio of dentists to population
- Uninsured - % of population under age 65 without health insurance
- Mammography screening - % female Medicare enrollees receiving mammograms
Community Health Needs and Issues

3e: Clinical care and access to care
- Diabetic Screening - % diabetic Medicare enrollees that receive HbA1c screening
- Preventable hospital stays - Ambulatory care sensitive hospitalizations/1,000 Medicare enrollees
- % of individuals without a personal doctor/provider
- % of individuals that did not see a doctor in past 12 months due to cost
CAHs with Lower Charity Care and Higher Bad Debt

- Analyze charity care and bad debt populations
- Patients with incomes at/near eligibility criteria
  - Revise financial assistance policies to reflect the economic status of the hospital’s patient populations and increase eligibility
- Low-income patients with high out-of-pocket cost health plans
  - Improve screening process to identify at the outset of care, and
  - Revise billing systems to capture and manage charity care charges at different stages of the billing process
CAHs with Lower Charity Care and Higher Bad Debt

- Low-income patients that otherwise qualify for charity/discounted care
  - Revise application process;
  - Simplify eligibility documentation;
  - Promote awareness of the hospital’s financial assistance program; and
  - Improve screening programs to identify patients eligible for public insurance coverage options or the hospital’s financial assistance program.
Essential Community Services

• **Hospital does not provide essential community services**
  – Not necessary for hospital to offer all services if services are available in community
  – Work with community partners to address local service gaps
  – Ensure that local services are coordinated, share information/data and work collaboratively address gaps and barriers
Health Outcome Measures

• Community has poorer performance than similar counties on one or more measures
  – Explore reasons behind poor performance – community interviews, inventory of local resources
  – Identify relevant partners
  – Develop evidence-based interventions to address problems
  – Monitor implementation of interventions
  – Revise based on success
This work was supported by the Federal Office of Rural Health Policy (FORHP), Health Resources and Services Administration (HRSA), U.S. Department of Health and Human Services (HHS) under cooperative agreement grant #5U27-RH01080. The information, conclusions, and opinions expressed in this presentation are those of the authors and no endorsement by FORHP, HRSA, or HHS is intended or should be inferred.
Population Health Portal Features and Use for State Flex Programs

Technical Assistance & Services Center (TASC)

February 15, 2017
The National Rural Health Resource Center (The Center) is a nonprofit organization dedicated to sustaining and improving health care in rural communities. As the nation’s leading technical assistance and knowledge center in rural health, The Center focuses on five core areas:

- Transition to Value and Population Health
- Collaboration and Partnership
- Performance Improvement
- Health Information Technology
- Workforce
Learning Objectives

• Learn features of the Population Health Portal
• Discover how state Flex Programs can leverage the resources, assessment and data scenarios to support their critical access hospitals (CAHs) and develop relevant Flex Program activities
• Understand how CAHs can use claims data to support population health management, including resources available in the Population Health Portal
Today’s Speakers

John Gale, University of Southern Maine, FMT
David Marc, The College of St. Scholastica
Sally Buck, National Rural Health Resource Center
As a Flex Coordinator, how can I use the Population Health Portal?

- Readiness Assessment
- Resource Library
- Data Scenarios
- Claims Data Tutorial
Step 1: Complete the short assessment

The primary goal of this assessment is to connect users with tools and resources targeted towards their rural health organizations' unique strengths and needs for transitioning towards population health through each milestone of Getting Motivated, Getting Informed and Getting Going. Users are encouraged to complete the assessment multiple times to monitor progress and receive updated resources to guide the journey towards population health.

Please indicate your organization’s level of engagement in the critical success factors needed to transition towards population health on a scale of: High, Moderate or Low. If you have not yet started on this success factor, please indicate N/A.

* Red asterisks indicate the field is required.

Readiness Assessment

Please indicate your organization’s level of engagement in LEADERSHIP activities that contribute towards population health.

<table>
<thead>
<tr>
<th>Activity</th>
<th>High</th>
<th>Moderate</th>
<th>Low</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am aware of the critical role of population health in value-based reimbursement models.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Board members, senior leadership, medical staff and mid-level managers understand the critical role of population health in value-based reimbursement models.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The board and leadership team are focused on creating a culture change towards providing wellness care in addition to illness care.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Please indicate your organization’s level of engagement in STRATEGIC PLANNING activities that contribute towards population health.

<table>
<thead>
<tr>
<th>Activity</th>
<th>High</th>
<th>Moderate</th>
<th>Low</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>The board and leadership team support the organization’s population health strategies.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The board, leadership team and medical staff can communicate the organization’s vision and strategies for transitioning to population health to all staff.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>My organization educates patients, partners and the community on the organization’s vision and strategies for population health through various modes, including social</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Get Motivated
Readiness Assessment

Get Informed

Get Going

Data Tool
- Diabetes Demographics Data
- Discharge Instructions Data
- Emergency Department Access Data
- Injury Demographics Data
- Patient Satisfaction Data
- Social Determinants of Health Data
- Socioeconomic Status and Well-being Data
- Understanding of Care and County Race Demographics Data
- Uninsured Rates, Behavior and Mental Health Data
- Using Claims Data
Thank you for completing the National Rural Health Resource Center’s (The Center) Population Health Readiness Assessment to track your journey towards population health and value. We encourage you to complete the assessment every three to six months to receive the latest tools, resources and case studies in population health developed by your peers and subject matter experts from around the country. Completing this assessment on a regular basis to track, monitor and communicate your organization’s progress in the journey towards population health and value will help assure you, your board and staff that your organization is well prepared for the present and future healthcare environment.

Way to go! Your organization is on its way in its journey towards population health. You have an understanding of what it takes to be a rural health leader and you are in the process of getting informed to learn more!

Based on your unique Population Health Readiness Assessment responses, your organization's overall score was 59 out of 105. The higher the score, the more prepared your organization is at traversing the path towards population health and value.

You can bookmark this page to view the results again later. A link to the results has been emailed to the address you provided.

Outcomes & Value Resources
Immediate Resources Based on Results

Outcomes & Value Resources

**PDF**

**A Guide for Rural Hospitals to Identify Populations and Shift to Population Health**

**Author:** Stroudwater Associates

This guide provides rural hospitals with a practical approach to identifying key patient populations. It outlines a process to initiate population health planning and discusses how to integrate population health initiatives as part of an organization’s strategy. Providers will gain a greater understanding of how to determine which patient populations to target in their initiatives and where to direct resources to improve quality and outcomes as well as reduce the cost of care.

**WEBINAR/VIDEO**

**A Strategic Framework for Assisting Rural Hospitals to Move to Population Health**

**Date:**
Wednesday, April 8, 2015

**Duration:**
50 minutes

Speaker Scott Goodspeed discusses how rural hospitals can develop a robust strategy for full population health management by outlining the practical steps rural providers need to consider as the payment system moves to value and population health.

**WEBINAR/VIDEO**

**Using Analytics to Manage Population Health**

**Date:**
Friday, April 10, 2015

**Duration:**
50 minutes
• Ask all the CAHs in the state to complete the assessment and email you a copy of their scores
• OR, ask them to send you an email allowing The Center to release the scores to you
• Review the scores and identify areas for TA, education, collaboration and sharing of best practices
Explore numerous resources including documents, tools and webinars to get motivated, get informed, and get going on population health.
Data Scenarios

• Nine data scenarios, four publicly available data sets
• Scenarios are used to answer questions CAHs, rural health care providers or states may have about health care issues in their states, counties or hospitals
• Scenario does basic analysis combining multiple data sets with filters and can be downloaded for further analysis
Emergency Department Access

Emergency department (ED) crowding and boarding is increasingly problematic for the US health care system. Research has shown that hospitals with higher levels of crowding and boarding have consistently poorer quality and outcomes (National Quality Forum, 2012). Research has shown that ED wait times are associated with longer length of stays, increased morbidity and mortality, patients leaving the emergency department without being seen, negative patient satisfaction and increased costs (Vermeulen et al., 2014).

There is a growing emphasis on adopting interventions that have proven effective for decreasing ED wait times and crowding. However, research indicates that relatively few hospitals report implementing known strategies for decreasing emergency department wait times (Rabin et al., 2012).

The purpose of this analysis is to identify if there is an association between timely and effective care measures. Specifically, this scenario will answer the following:

- Do hospitals that have greater wait times also have a higher proportion of patients that leave the ED before being seen?
- Do hospitals with greater wait times to be seen by a health care practitioner before being admitted to the ED, also those that have higher wait times before ED patients are admitted as an inpatient?

In addition, further analysis will be conducted to determine if these associations exist for counties or states. And finally, the implications of such observed associations will be revealed.

View the data >

Tutorial: Using the Data
Example - Emergency Department Access

<table>
<thead>
<tr>
<th>State</th>
<th>County</th>
<th>Hospital</th>
<th>Hospital Type</th>
<th>Hospital Ownership</th>
<th>Efficiency Measure Name</th>
<th>Efficiency Measure Score</th>
<th>Denominator</th>
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</thead>
<tbody>
<tr>
<td>KS</td>
<td>CLARK COUNTY</td>
<td>MINNEOLA DISTRICT HOSPITAL NBR 2</td>
<td>Critical Access Hospitals</td>
<td>Government - Hospital District or Authority</td>
<td>ED_1b</td>
<td>143</td>
<td>23</td>
</tr>
<tr>
<td>KS</td>
<td>SEWARD COUNTY</td>
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<td>26</td>
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<tr>
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<td>Critical Access Hospitals</td>
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<td>85</td>
<td>15</td>
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<tr>
<td>KS</td>
<td>POTAWATOMIE COUNTY</td>
<td>COMMUNITY HOSPITAL, ONAGA AND ST MARYS CAMPUS</td>
<td>Critical Access Hospitals</td>
<td>Voluntary non-profit - Private</td>
<td>ED_1b</td>
<td>101</td>
<td>100</td>
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<tr>
<td>KS</td>
<td>DICKINSON COUNTY</td>
<td>MEMORIAL HOSPITAL</td>
<td>Critical Access Hospitals</td>
<td>Government - Hospital District or Authority</td>
<td>ED_1b</td>
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<td></td>
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<tr>
<td>KS</td>
<td>GREENWOOD COUNTY</td>
<td>GREENWOOD COUNTY HOSPITAL</td>
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<td>Government - Local</td>
<td>ED_1b</td>
<td>142</td>
<td>19</td>
</tr>
<tr>
<td>KS</td>
<td>OTTAWA COUNTY</td>
<td>CLAY COUNTY MEDICAL CENTER</td>
<td>Critical Access Hospitals</td>
<td>Government - Local</td>
<td>ED_1b</td>
<td>146</td>
<td>46</td>
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<tr>
<td>KS</td>
<td>MARION COUNTY</td>
<td>ST LUKE HOSPITAL &amp; LIVING CENTER</td>
<td>Critical Access Hospitals</td>
<td>Government - Hospital District or Authority</td>
<td>ED_1b</td>
<td>110</td>
<td>36</td>
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<tr>
<td>KS</td>
<td>ANDERSON COUNTY</td>
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<td>Voluntary non-profit - Private</td>
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<td></td>
</tr>
</tbody>
</table>

https://www.ruralcenter.org/population-health-portal/data/emergency-department-access/
Socioeconomic Status and Well-being

Research has demonstrated an association between socioeconomic status and health status (Evans et al., 2016). Studies have identified a relationship between a variety of social and environmental factors, oftentimes called "social determinants of health," and health outcomes (Rubin, 2016). Health disparities are significantly related to factors such as education, race, ethnicity and occupation (Adler & Cutler, 2016).

The purpose of this analysis is to explore health-related outcomes (including diabetes rates, premature mortality rates, health care costs, preventable hospital stays and poor mental health days) in relationship to a variety of social determinants of health, including median household income, food insecurity and race at the county level.

View the data >

Tutorial: Using the Data

The purpose of this presentation is to demonstrate how to conduct the analysis to compare the rates of heart failure patients given discharge instructions and the rates of heart failure readmissions at multiple levels, including state, county and hospital type.
<table>
<thead>
<tr>
<th>State</th>
<th>County</th>
<th>Income Inequality Rate</th>
<th>Median Household Income</th>
<th>Percent Residential Segregation Black White</th>
<th>Percent Diabetes</th>
<th>Percent Food Insecurity</th>
<th>Percent Limited Access to Healthy Foods</th>
<th>Premature Age Adjusted Mortality per 100,000</th>
<th>Preventable Hospital Stays per 1,000</th>
<th>Total Medicare Reimbursements</th>
<th>Hospital and Skilled Nursing Facility Reimbursement</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR</td>
<td>LITTLE RIVER COUNTY</td>
<td>4.80</td>
<td>$37,691</td>
<td>23.06</td>
<td>13.00</td>
<td>18.00</td>
<td>4.00</td>
<td>418.60</td>
<td>81.05</td>
<td>$12,300</td>
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<td>AR</td>
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<td>$37,014</td>
<td>51.61</td>
<td>13.00</td>
<td>16.00</td>
<td>20.00</td>
<td>455.10</td>
<td>112.38</td>
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<td>AR</td>
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<td>$33,028</td>
<td>28.46</td>
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<td>16.00</td>
<td>572.50</td>
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<td>AR</td>
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<td>$11,266</td>
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<tr>
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<td>18.33</td>
<td>16.00</td>
<td>22.00</td>
<td>5.00</td>
<td>527.70</td>
<td>119.86</td>
<td>$11,248</td>
<td>$4,952</td>
</tr>
<tr>
<td>AR</td>
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<td>44.86</td>
<td>13.00</td>
<td>23.00</td>
<td>9.00</td>
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<td>115.76</td>
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<td>$5,635</td>
</tr>
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<td>$11,128</td>
<td>$5,528</td>
</tr>
</tbody>
</table>

https://www.ruralcenter.org/population-health-portal/data/socioeconomic-status-and-well-being/
Example 2 – Socioeconomic Status and Well-Being

<table>
<thead>
<tr>
<th>Physician Reimbursements</th>
<th>Outpatient Facility Reimbursements</th>
<th>Home Health Agency Reimbursements</th>
<th>Hospice Reimbursements</th>
<th>Durable Medical Equipment Reimbursements</th>
</tr>
</thead>
<tbody>
<tr>
<td>$2,537</td>
<td>$1,778</td>
<td>$890</td>
<td>$1,177</td>
<td>$251</td>
</tr>
<tr>
<td>$2,268</td>
<td>$1,562</td>
<td>$1,291</td>
<td>$647</td>
<td>$293</td>
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<td>$2,230</td>
<td>$2,608</td>
<td>$485</td>
<td>$344</td>
<td>$227</td>
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<tr>
<td>$1,718</td>
<td>$2,321</td>
<td>$574</td>
<td>$120</td>
<td>$231</td>
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<td>$2,261</td>
<td>$1,005</td>
<td>$322</td>
<td>$206</td>
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<tr>
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<td>$612</td>
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<td>$2,385</td>
<td>$1,881</td>
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<td>$2,425</td>
<td>$2,121</td>
<td>$456</td>
<td>$342</td>
<td>$238</td>
</tr>
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</table>

Uninsured Rates, Behavior and Mental Health

Mental health is the leading cause of disability in the United States and research has shown that individuals who have health insurance are more likely to use one or more types of mental health services (Miller et al., 2016). Research has also shown disparities in mental health service use and adequacy based upon race, ethnicity and socioeconomic factors (Jimenez et al., 2013; Tsai et al., 2014).

The purpose of this analysis is to compare the rates of poor mental health days by rates of health insurance coverage, average number of poor physical health days, employment status, income level, teen birth rates and rates of excessive drinking at the county level.

View the data >

Tutorial: Using the Data

The purpose of this presentation is to demonstrate how to conduct the analysis to identify if there is an association in the rates of poor mental health days by rates of health insurance coverage, average number of poor physical health days, employment status, income level, teen birth rates or rates of excessive drinking at the county level.
## Example – Uninsured Rates, Behavior and Mental Health

<table>
<thead>
<tr>
<th>State</th>
<th>County</th>
<th>Percent Uninsured</th>
<th>Median Household Income</th>
<th>Percent Unemployment</th>
<th>Percent Excessive Drinking</th>
<th>Drug Overdose Deaths per 100,000</th>
<th>Teen Births per 1,000</th>
<th>Avg Poor Mental Health Days per Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>TX</td>
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<td>40</td>
<td>$42,820</td>
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<td>75.60</td>
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<td>$42,139</td>
<td>4.00</td>
<td>15.00</td>
<td>47.30</td>
<td>3.30</td>
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<tr>
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<tr>
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<td>71.30</td>
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<td>15.00</td>
<td>10.66</td>
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</tr>
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<td>13.00</td>
<td>2.71</td>
<td>73.10</td>
<td>3.70</td>
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<tr>
<td>TX</td>
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<td>0.00</td>
<td>92.40</td>
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<tr>
<td>TX</td>
<td>COTTLE COUNTY</td>
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<td>$32,722</td>
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<td>14.00</td>
<td>0.00</td>
<td>70.00</td>
<td>3.40</td>
</tr>
</tbody>
</table>

Using Claims Data

Put Data to Use

Population Health Portal > Put Data to Use

This tool provides users the ability to extract data from multiple federal, publicly available datasets to use for population health planning. The portal also provides users with educational resources about working with the datasets in Microsoft Excel.

The purpose of this tool is to provide a web-based dashboard to educate state Medicare Rural Hospital Flexibility (Flex) Program Coordinators, state office of rural health staff, critical access hospitals, rural health networks and other rural health stakeholders on population health data analytics.

The data included in this web-based tool are publicly available and consist of, but not limited to:

- Hospital Compare (Centers for Medicare & Medicaid Services)
- Medicare Data from Dartmouth Atlas
- Community Health Status Indicators (CHSI)
- US Census Bureau

Note: Hospital Compare data in the Portal does not include data that has been suppressed due to small numbers. Critical access hospitals (CAHs) and State Flex Coordinators may access detailed community health, financial and quality data, including Medicare Beneficiary Quality Improvement Project (MBQIP) data by CAH or by state and year through the Flex Monitoring Team. The Critical Access Hospital Measurement and Performance Assessment System (CAHMPAS) is available to authorized users including State Flex Coordinators and CAHs. State Flex Coordinators and CAHs already have access to their own MBQIP data from Tealigen sent as quarterly reports.
TASC
877-321-9393
tasc@ruralcenter.org
http://www.ruralcenter.org

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Twitter | LinkedIn
Podcast (iTunes | Google Play)
Population Health Management and Rural Health

David Marc, PhD, CHDA
Assistant Professor & Health Informatics Graduate Program Director, The College of St. Scholastica
Population health management focuses on the use of data to find a way to manage the escalating costs of treating chronic diseases.

According to the Clinically Appropriate & Cost-Effective Placement Project (CACEP), Medicare could reduce its spending by $34.7 billion over a 10-year period if patient care settings were shifted from facility-based care to home and community-based care.

There is a greater need to access and analyze vast amounts of population data from many different outpatient settings.
Claims data is administrative data and includes information on:

- patient demographics
- billable charges
- dates of service
- diagnosis codes
- procedure codes
- medication refills
- insurance
- providers

CMS Form 1500

CMS Form UB-04
Payers and health systems have relied on claims data for analysis associated with population health management because:

- **Claims data is readily available.** The requirements for payment to the provider ensure the data is entered into the claims system on a complete and timely basis.

- **Claims data spans a patient’s full continuum of care.** The payer has a record of every encounter and every prescription filled unless a patient pays for services out of his or her own pocket.

- **Claims data is highly structured.** Almost all the data must be captured in specific fields on standardized forms in order for claims to be approved and payment to be issued. Because of this consistent format, it’s relatively easy for other systems to consume.

---

Insights Offered from Claims Data

• By examining claims data, analysts gain information about the cost and utilization of a patient population across multiple care settings as well as information about the types of diagnoses and procedures performed.

• Claims data can provide insight into the following performance measures:
  o Mortality rates
  o Complications
  o Access to appropriate health services
  o Utilization of services
  o Charges for care provided
Limitations of Claims Data

• Claims data lacks important clinical detail
  o Data is collected for purposes of payment
  o Does not capture all clinical detail
  o Clinical history is not necessarily included

• Claims data is highly retrospective
  o There is lag in the date of care and date of the claims data (sometimes months!)

• Claims data does not provide insight into the actual process of care
  o Claims data is a static summary
### How can Critical Access Hospitals get Started in Population Health Management?

<table>
<thead>
<tr>
<th>What CAHS can do:</th>
<th>How they can do it:</th>
</tr>
</thead>
</table>
| Understand/build the case for population health | - Align with the shift towards value-based purchasing.  
- Identify the potential to increase community presence/engagement (marketing!).  
- Get the chief financial officer (CFO) engaged, framing the conversation in terms of charity care, bad debt, and community benefit.  
- Organize your data and seek assistance with analysis of claims, health status and community needs.  
- Recognize the impact on other organizational priorities (for example: recruitment/retention, employee satisfaction, care transitions).  
- Provide facility wide education about the determinants of health to help engage staff in conversations about the non-medical influences on wellness.  
- Dispel the notion that population health = cash outlay. Population health strategies may take time, but not necessarily involve writing a check. |
| Put population health on the agenda | - Include population health on the agenda for meetings across all levels of the organization (such as Board, management, quality improvement, health information technology, business office, staff).  
- Provide education and have discussion regarding:  
  - How does population health align with your strategic initiatives and health reform activities?  
  - What is your role in addressing the two aspects of population health (cohort/community)?  
  - What are next steps to implementing/integrating population health strategies?  
  - What community needs are a priority, and how they impact your hospital? |
| Look inside your own walls | - Develop and/or implement employee wellness programs that encourage healthy behaviors.  
- Implement case management/care coordination services for employees with chronic conditions.  
- Consider starting with a focus on uninsured that you are already serving. Manage charity care and bad debt policies so that you can better support those populations and address needs before they reach the emergency room or inpatient unit. |
| Reach out to the community | - Don’t wait to be asked, offer and engage in conversation with a wide variety of community partners and leaders.  
- Build on CHNA results and monitor implementation of action plans.  
- Set expectations and support staff involvement in community workgroups, committees, task forces that address population health needs.  
- Identify and articulate role(s) your hospital can fill in supporting community efforts.  
- Think beyond traditional health care partners to identify opportunities for coordination and collaboration (for example: parks and recreation departments, senior centers, schools, fitness facilities, libraries...). |

How can Critical Access Hospitals use Claims Data?

Examples of what claims data can show you:

- Which patients frequently visit an emergency department because they can’t get in to see their primary care doctor
- Who is being hospitalized because they can’t get care at home
- Which asthma patients should be on cortisone inhalers but are not
- Whether cardiologists are prescribing multiple stress tests to every patient when that may not be necessary
- Frequency of healthcare-associated infections following a surgery
- Total costs of care for super-utilizing patients in your community
- Common diagnoses for super-utilizing patients in your community
How to Access Claims Data?

• Review submitted claims from within a hospital

• CMS and other payers provide aggregated claims data
  o Review the All-Payer Claims Database
    - Disseminated and managed by each state
    - Not all states participate: https://www.apcdcouncil.org
  o Medicare Provider Analysis and Review (MedPAR) data
    - Inpatient data that is disseminated by CMS
    - Includes 100% of Medicare beneficiaries using hospital inpatient services
    - Can get access to a limited data set for a fee
  o Hospital Outpatient Prospective Payment System (OPPS) data
    - Claims level data and there is a fee to access the data
  o Research identifiable files (RIFs)
    - Contain beneficiary-level PHI
    - Requires a data use agreement and reviewed by CMS’s Privacy Board prior to dissemination
When Should Claims Data be Analyzed?

• When the data is available!
• When you need to analyze a broad scope of data for insured patients that offers an accurate record of prescriptions that were filled (and refilled) and have information on current diagnoses and procedures (not historical perspective)
• Consider aggregation of the data
  o Monthly
  o Quarterly
  o Annually
What Skills are Required?

• Strong understanding of the clinical data
  • Diagnosis codes
    • ICD
  • Procedural codes
    • CPT/HCPCS

• Analytical skills
  • MS Excel
  • Data summarization
  • Graphic creation

• Communication skills
  • Written and oral
Other Sources of Data

- Claims data combined with clinical data provides very specific value when comparing recommended care against evidence-based practices
- Publicly available data
  - Hospital Compare
  - Immunization registries
  - Department of health data
- Nationally reported data
  - HEDIS
  - OPPS
- Social Media
Using Claims Data

Administrative data related to health insurance claims is extremely powerful for driving improvements in population health to address issues related to cost, quality, and outcomes. Health care is a data intense industry. Information is collected routinely for clinical purposes as part of every health care encounter. Health care data is also created for a variety of other purposes, including payment via submitted claims. Claims data include information at the patient encounter level regarding diagnoses, treatments and billed and paid amounts. Clinical data from electronic health records (EHR) are critical for analyses to improve health care delivery. However, the use of claims data can effectively complement EHR data by providing an extremely broad view of a patient’s interactions across the continuum of the health care system, reduce selection bias and provide access to large and diverse samples (Stein et al., 2014).

Regardless of its importance, there are many challenges with using claims data. One challenge related to using claims is assessing data quality and accounting for incomplete or missing data. Other challenges include integrating data from multiple sources and developing methods for describing utilization or appropriateness of care (Stein et al. 2014). Other technical challenges with creating specific datasets based upon claims data include:

- Converting claims into unique visits
- Identifying incomplete claims data
- Categorizing providers and locations of service
- Selecting the most useful measures of utilization and expenditures (Tyree, Lind and Lafferty, 2006)

The purpose of this resource is to provide examples of analyzing claims data. Specifically, the use of synthetic claims data developed by the Centers for Medicare & Medicaid Services (CMS) is explained and instructions on how to acquire and use the data are provided.
The Data Entrepreneurs’ Synthetic Public Use File (DE-SynPUF) is a set of realistic claims data from 2008 – 2010 made available by CMS.

The information provided in the dataset is real patient claims data, but is provided in a format that protects patients’ identities.

The purpose of the dataset is to provide training in data analysis, data mining and development of software that may lead to increased knowledge from claims data in practice.

The DE-SynPUF is consists of five types of administrative data that are linked together by a unique identifier at the patient level -- beneficiary summary, inpatient claims, outpatient claims, carrier claims and prescription drug events.

To acquire the DE-SynPUF data, go to the DE-SynPUF website and choose the data you want to download.
DE-SynPUF Overview

The Data Entrepreneurs’ Synthetic Public Use File (DE-SynPUF) is a set of realistic claims data from 2008 – 2010 made available by CMS. The information provided in the dataset is real patient data, but is provided in a format that protects patients’ identities. The purpose of the dataset is to provide training in data analysis, data mining and development of software that may lead to increased knowledge from claims data in practice.

The DE-SynPUF consists of five types of administrative data that are linked together by a unique identifier at the patient level ‒ beneficiary summary, inpatient claims, outpatient claims, carrier claims and prescription drug events. The dataset includes a 5% sample of Medicare beneficiaries in 2008, and the total sample includes over 100 million records across the three years sampled.

To acquire the DE-SynPUF data, go to the DE-SynPUF website and choose the data you want to download. You will see that the data is segmented into 20 unique samples. When you click on a sample you can choose to download all of the datasets for that sample of beneficiaries. The video below offers an example on how to interact with the website and download a sample of the data.

Analyzing Claims Data

Claims data is a rich data source and includes information related to diagnoses, procedures and utilization. There are numerous analyses that can be conducted on claims data to derive information and knowledge to drive decision making. Claims data can be used for comparing prices of health care services at local, state, regional or national levels. Claims data can be used to compare services provided by specific providers or health care organizations based upon specific diagnoses (or combinations of diagnoses). It can also be used to evaluate quality of care provided by health care providers. According to the Pew Charitable Trusts, “claims data can reveal whether a doctor followed nationally recommended medical protocols for treating patients diagnosed with diabetes. How many received quarterly exams? Did they receive an eye exam? How many were admitted to a hospital?” (Vestal, 2014).

In the video below the CMS DE-SynPUF claims data is used as an example on how claims data can be used for population health analytics. The exercise demonstrates how to determine high outpatient utilizers using the outpatient claims data to examine their economic impact.
David Marc
Assistant Professor & Health Informatics Graduate Program Director
The College of St. Scholastica, Duluth, MN
218-625-4892
dmarc@css.edu
http://www.ruralcenter.org

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