

# Measurement Strategies for Medicaid Beneficiaries with Complex Needs

Technical Assistance Brief

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**M**easuring health plan and provider performance allows states to determine the quality of care that Medicaid beneficiaries are receiving and to pinpoint areas for improvement. Most Medicaid programs rely on nationally recognized measures such as the Healthcare Effectiveness Data and Information Set (HEDIS) to compare state health plan and provider performance with national benchmarks. HEDIS offers a useful measurement tool for states, yet these measures are somewhat limited in covering conditions relevant to people with disabilities and complex physical and behavioral health needs.<sup>1</sup> As more states develop accountable care models for aged, blind, and disabled beneficiaries, the need to reexamine and augment traditional performance measures to reflect the population's complex and varied needs is critical.

From 2006 to 2008, the Center for Health Care Strategies (CHCS) worked closely with six states — California, Indiana, Pennsylvania, New York, Nevada, and Washington — within the *Managed Care for People with Disabilities Purchasing Institute* to identify and test alternative strategies to measure the care provided to Medicaid beneficiaries with complex needs. The states participated in a Performance Measurement Workgroup that tested the use of the Agency for Healthcare Research and Quality's Prevention Quality Indicators (PQIs)<sup>2</sup> on their SSI populations and explored which HEDIS measures are most appropriate for complex need beneficiaries.

Based on the experiences of these states and others, this technical assistance brief describes how state purchasers can incorporate PQIs to enhance existing measurement strategies. It also provides insights on which HEDIS measures may be best suited for evaluating the care of beneficiaries with complex physical and behavioral health needs.

## Testing Prevention Quality Indicators for Medicaid Complex Need Populations

PQIs are a set of measures that are used with hospital inpatient discharge data to identify beneficiaries with "ambulatory care sensitive conditions" (ACSCs). ACSCs encompass conditions for which outpatient care can potentially prevent the need for hospitalization, or for which early intervention can prevent complications or more severe disease. As illustrated in Table 1 (page 2), PQIs cover a broad range of hospitalizations (e.g., urinary tract infections, dehydration, uncontrolled diabetes, bacterial pneumonia, and adult asthma) that are relevant to people with complex needs. Since PQIs are derived from hospital discharge data, these indicators can be used across a variety of delivery systems (full-risk capitation, partial risk, and fee-for-service [FFS]).

Over the past few years, states have increasingly begun to use PQIs as a measurement tool for Medicaid beneficiaries with complex needs to:

- Identify potential red flags for underutilization of preventive care;
- Serve as a proxy to identify opportunities to improve care coordination or access to ambulatory care; and
- Provide an initial gauge to understand the quality of ambulatory care provided to its beneficiaries.

**Table 1: AHRQ's Prevention Quality Indicators**

Indicator	Description
1. Diabetes Short-term Complication Admission Rate	Number of admissions for diabetes short-term complications per 100,000 population.
2. Diabetes Long-term Complication Admission Rate	Number of admissions for long-term diabetes per 100,000 population.
3. Chronic Obstructive Pulmonary Disease (COPD) Admission Rate	Number of admissions for COPD per 100,000 population.
4. Hypertension Admission Rate	Number of admissions for hypertension per 100,000 population.
5. Congestive Heart Failure (CHF) Admission Rate	Number of admissions for CHF per 100,000 population.
6. Dehydration Admission Rate	Number of admissions for dehydration per 100,000 population.
7. Bacterial Pneumonia Admission Rate	Number of admissions for bacterial pneumonia per 100,000 population.
8. Urinary Tract Infection Admission Rate	Number of admissions for urinary infection per 100,000 population.
9. Angina without Procedure Admission Rate	Number of admissions for angina without procedure per 100,000 population.
10. Uncontrolled Diabetes Admission Rate	Number of admissions for uncontrolled diabetes per 100,000 population.
11. Adult Asthma Admission Rate	Number of admissions for asthma in adults per 100,000 population.
12. Rate of Lower-Extremity Amputation among Patients with Diabetes	Number of admissions for lower-extremity amputation among patients with diabetes per 100,000 population.
13. Perforated Appendix Admission Rate	Number of admissions for perforated appendix as a share of all admissions for appendicitis within an area.
14. Low Birth Weight Rate	Number of low birth weight births as a share of all births in an area.

The states participating in CHCS' *Managed Care for People with Disabilities Purchasing Institute* tested various strategies for adopting AHRQ's PQIs<sup>3</sup> to better understand the needs of SSI-eligible Medicaid beneficiaries.<sup>4</sup> Following are examples detailing various ways that three *Purchasing Institute* participants as well as two additional states used PQIs.

### Examples from the Field

#### **Identifying Care Gaps and Targeting Care Management Across a Population**

Washington Medicaid used PQIs to better understand the reasons for preventable hospitalizations and to target care management more effectively. The state examined PQI admissions from 2001-2006, carefully examining risk factors and disease conditions for beneficiaries with PQI admissions. The state also looked at variance in PQI rates over time, place of residency, and mental health or substance abuse co-occurring conditions and used the resulting information to produce a chronic disease profile for each beneficiary. Since this initial test, the state now collects PQIs on an ongoing basis and updates these indicators in beneficiary data profiles.

## **Targeting Mental Health Comorbidities for Care Management**

Nevada sought to identify beneficiaries with comorbidities of schizophrenia or bipolar disorder who may not be receiving appropriate ambulatory care for common chronic conditions. The top five PQI admissions among Nevada's SSI-eligible beneficiaries were, in order of frequency: chronic obstructive pulmonary disease, congestive heart failure, bacterial pneumonia, diabetes short-term complications, and adult asthma. The state first identified 5,000 beneficiaries with at least one of these five PQI admissions during 2005, and then, within this group found that 214 had schizophrenia or bipolar disorder. The state could then assess whether the identified beneficiaries were receiving care management services and target physical and/or behavioral health services as necessary.

## **Identifying "Red Flags" at a Local Level**

California used PQIs to identify opportunities to improve care within its Medicaid (Medi-Cal) program at the county level. The state grouped PQIs into four categories: diabetes, cardiovascular, pulmonary, and dehydration/urinary tract infection. In analyzing these PQI rates across counties, the state found that one county in particular had the highest rates for almost all of the categories. To validate these results, the state analyzed these four PQI rates for prior years. This type of analysis can be helpful to states in better understanding the care provided by the plans and/or providers serving specific geographic areas of the state.

## **Comparing Managed Care Program Performance to Fee-for-Service**

Wisconsin Medicaid used PQIs to measure the effectiveness of its managed care program for SSI-eligible beneficiaries in reducing preventable hospitalizations. The state looked at PQI rates and found that hospitalizations for beneficiaries with congestive heart failure in the managed care program had dropped from 20.8% to 15% over two years. When the state compared total emergency room (ER) visits for ambulatory care sensitive conditions for managed care SSI beneficiaries to similar FFS beneficiaries, it found that individuals in the managed care program not only had fewer ER visits, but had fewer avoidable ER visits.<sup>5</sup> Similarly, researchers at the University of California, San Francisco used PQIs to compare the quality of ambulatory care for SSI-eligible beneficiaries in California's Medicaid managed care and FFS programs.<sup>6</sup> The study examined PQI rates during a five-year period of significant managed care expansion, and found that the rate of preventable hospitalizations among SSI beneficiaries age 65 and younger was almost a third higher in FFS (76.4 per 1,000) than in managed care (57.5 per 1,000).

## **Considerations for States in Using PQIs**

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These brief profiles showcase the various ways that PQIs can be used to assist Medicaid programs in better understanding the needs of their aged, blind, and disabled beneficiaries and the quality of care they are receiving. As states introduce new measures, it is important to collaborate with health plans, providers, or vendors (e.g., administrative service organizations or care management organizations) to manage expectations about data collection, performance, and monitoring. State considerations for implementing PQIs as a measurement tool include:

- **Sample Size:** Depending on the size of their Medicaid program, states stratifying PQI rates by subsets of the population (i.e., SSI beneficiaries) may be concerned that results are not statistically significant because the number of beneficiaries is so small.
- **Timeliness of Data:** AHRQ's technical specifications note that PQIs should be collected annually. Some states may be concerned that avoidable hospitalizations "flagged" last year would be difficult to impact/improve in the same year. Thus, several states using PQIs collect them on a rolling quarterly basis to ensure timeliness.
- **Lack of National Benchmarking:** Nationally recognized measures like HEDIS allow states to compare performance across health plans/providers as well as to other states. Although there are currently no

national benchmarks for PQIs, as more states collect these indicators, there will be opportunities to amass national comparative data.

- **Lack of Applicability for Dual Eligible Beneficiaries:** Because Medicare pays for the majority of inpatient costs for beneficiaries who are dually eligible for Medicaid and Medicare, Medicaid claims data do not adequately reflect inpatient utilization for this population. Thus, although dual eligible beneficiaries represent a high-need population that should potentially be targeted for enhanced care management, states' ability to run PQIs for this population is limited.

## **Identifying *Must-Have* HEDIS Measures for Medicaid Beneficiaries with Complex Needs**

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In addition to testing PQI measures, the states in CHCS' Performance Measurement Workgroup sought to identify "must-have" HEDIS measures for adult beneficiaries with complex needs. Although nationally recognized measures have limitations, e.g., little to no focus on comorbidities, care coordination, and behavioral health, these measures can provide a solid foundation for a state's overall measurement strategy.

The following HEDIS measures were selected by the Workgroup based on their appropriateness and relevance to assessing care for a Medicaid-only, SSI-eligible adult population. These are not the only measures states should consider nor are these measures representative of the full range of clinical issues relevant to beneficiaries with complex needs. States can refer to this list as a starting point for discussion and evaluation of its current measurement strategy, recognizing the state's unique environment, clinical priorities, and resources.

1. Controlling High Blood Pressure
2. Comprehensive Diabetes Care
3. Cholesterol Management for Patients with Cardiovascular Conditions
4. Use of Spirometry in the Assessment and Diagnosis of COPD
5. Use of Appropriate Medications for People with Asthma
6. Follow-up After Hospitalization for Mental Illness<sup>7</sup>
7. Adults' Access to Preventive/Ambulatory Health Services
8. Inpatient Utilization (General Hospital and Acute Care)
9. Ambulatory Care<sup>8</sup>

In addition to this core list, the majority of the group agreed that the following three measures should also be considered as critical for states to collect. These measures were not selected for the "must-have" list because dental and substance abuse services are typically in FFS or are carved out in state Medicaid programs.

- Annual Dental Visits
- Chemical Dependency Utilization (Inpatient Discharges and Average LOS)
- Identification of Alcohol and Other Drug Services

## **Conclusion**

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Nationally recognized measures reflect how care is delivered for a majority of the Medicaid population, but can fall short in fully addressing the quality of care provided to meet beneficiaries' complex needs. In order to evaluate how well their Medicaid programs are functioning for all beneficiaries, states need performance measures that can assess the provision of care across a variety of areas, including quality, coordination, and access, as well as inpatient and emergency room utilization.

By looking at HEDIS measures in new ways, states can isolate core measures that particularly reflect the needs of people with disabilities and multiple chronic conditions. PQIs, which can help states identify high-risk patients who might not be getting appropriate care, are an additional useful measurement tool to gauge the quality of care for beneficiaries with complex needs. Other potential measurement strategies for states include

developing “home grown” measures or using non-traditional measurement tools. Such non-traditional tools include the Care Transitions Survey, which examines care transitions across a variety of settings,<sup>9</sup> as well as the Assessment of Health Plans and Providers by People with Activity Limitations, a modified Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey that covers areas not traditionally addressed in CAHPS, e.g., care coordination, pain management, durable medical equipment, etc.<sup>10</sup> The Patient Activation Measure, which assesses patient knowledge, skill, and confidence for self management, is another tool that may be relevant for beneficiaries with complex needs.<sup>11</sup>

Regardless of the blend of measurement strategies used, it is imperative for states to find a meaningful set of tools to assess the quality of care delivered to beneficiaries with complex needs. Today, states are increasingly looking toward establishing accountable systems of care. Accountable care means measurable care. Moving away from disease-specific measures to identify more effective mechanisms to gauge health care quality for beneficiaries with complex needs will help states in achieving truly accountable programs.

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## About the Center for Health Care Strategies

The Center for Health Care Strategies (CHCS) is a nonprofit health policy resource center dedicated to improving health care quality for low-income children and adults, people with chronic illnesses and disabilities, frail elders, and racially and ethnically diverse populations experiencing disparities in care. CHCS works with state and federal agencies, health plans, and providers to develop innovative programs that better serve Medicaid beneficiaries with complex and high-cost health care needs.

Visit [www.chcs.org](http://www.chcs.org) for additional resources and tools for improving the quality and cost-effectiveness of care for Medicaid beneficiaries with complex needs.

## Endnotes

<sup>1</sup> These beneficiaries are usually in the “disabled” eligibility category in state Medicaid programs, and are often referred to as ABD (aged, blind, and disabled) or SSI (Supplemental Security Income) beneficiaries.

<sup>2</sup> Prevention Quality Indicators, known as PQIs, are a measurement set developed by the Agency for Healthcare Research and Quality. For more information, see *Prevention Quality Indicators Download*, Agency for Healthcare Research and Quality, March 2007. [http://www.qualityindicators.ahrq.gov/pqi\\_download.htm](http://www.qualityindicators.ahrq.gov/pqi_download.htm).

<sup>3</sup> Unless otherwise noted, participating states used indicators 1-12 listed in Table 1, but did not use perforated appendix admission rates or low birth weight rates.

<sup>4</sup> Beneficiaries who are dually eligible for Medicaid and Medicare (“dual eligibles”) were excluded from this analysis because Medicaid claims data do not fully reflect inpatient utilization for dual eligibles.

<sup>5</sup> S. Mahkorn. *Using AHRQ Prevention Quality Indicators to Assess Program Performance in Medicaid Managed Care*. Presentation to the Center for Health Care Strategies Performance Measurement Workgroup, 2008.

<sup>6</sup> A. Bindman, A. Chattopadhyay, D. Osmond, et al. *Preventing Unnecessary Hospitalizations in Medi-Cal: Comparing Fee-for-Service with Managed Care*. California HealthCare Foundation, May 2004. <http://www.chcf.org/documents/policy/PreventableHospitalizationsInMediCal.pdf>

<sup>7</sup> Workgroup expressed concern that states carving mental health services out of the health plan benefit package may not have access to data needed for this measure. Pennsylvania, which carves out mental health services, addresses this issue by requiring its behavioral health organizations to submit results for this measure to its external quality review organization for validation.

<sup>8</sup> Outpatient visits, emergency department visits, ambulatory surgery/procedures performed in hospital, outpatient facilities, or freestanding surgical centers, and observation room stays that result in discharge.

<sup>9</sup> For more information, visit [http://www.caretransitions.org/ctm\\_main.asp](http://www.caretransitions.org/ctm_main.asp).

<sup>10</sup> For more information, visit Consumer Assessment of Healthcare Providers and Systems, [www.caphs.ahrq.gov](http://www.caphs.ahrq.gov).

<sup>11</sup> For more information, visit <http://www.insigniahealth.com/products/pam.html>.