2015 Clinic Quality Comparisons Methodology

A Publication from Utah's All Payer Claims Database

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Introduction

Utah's All Payer Claims Database

The Utah Department of Health, Office of Health Care Statistics (OHCS) is responsible managing the All Payer Claims Database (APCD) under authority granted to the Department and the Health Data Committee (HDC).[1] Licensed commercial health insurance carriers and pharmacy benefit managers covering 2,500 or more Utahns are required to submit member eligibility, medical claims, dental claims, and pharmacy claims as well as a health care provider file by administrative rule.[2] In addition to commercial insurance data, the APCD collects data from Medicaid. OHCS contracts with 3M Health Information Systems (3M) for APCD data collection and processing. 3M also enhances data with risk adjusters, cost calculations, National Committee for Quality Assurance (NCQA) quality measures, and patient-provider attribution before delivering the APCD back to OHCS on a semi-annual basis.

Reporting Requirements

These claims and encounter data are intended "to facilitate the promotion and accessibility of quality and cost-effective health care."[3] OHCS is required to produce health care provider comparisons and make the information available to the public free of charge. Comparative information may include generally accepted cost and quality measures.[4]

For our purposes, a "clinic" is a physician or group of physicians practicing at a specific location. Clinics with five or more physicians will be identified in public reports. Clinics with fewer than five physicians will be aggregated and reported on by geography. Quality measures by clinic and by geography were published in July 2016 in accordance with this law. An update to the measures will be published and a report submitted to the Legislature's Health and Human Services Committee before July 1, 2017.

Changes Made Since Previous Publication

OHCS refined its process for identifying clinics. Providers are only included as possible clinics if a claim was generated for an office visit. The goal is to reduce the number of specialty clinics

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[1] Utah Code 26-33a-104, accessed March 30, 2017, https://le.utah.gov/xcode/Title26/Chapter33A/26-33a-S104.html.
[2] Utah Administrative Rule R428-15, accessed March 30, 2017, https://rules.utah.gov/publicat/code/r428/r428-015.htm.
[3] Utah Code 26-33a-106.5, accessed March 30, 2017, https://le.utah.gov/xcode/Title26/Chapter33A/26-33a-S106.5.html.
[4] ibid.

identified in the previous year. Accordingly, we saw a reduction in the overall number of clinics being reported on from 231 in 2014 to 184 in 2015.

The 2015 clinic quality data includes three new measures: Breast Cancer Screening (BCS), Medication Management for People with Asthma (MMA), and Use of Imaging for Low Back Pain (LBP). In response to feedback from the provider community, OHCS also implemented a suppression rule. A clinic is only included in the publicly reported data if the clinic is attributed 11 or more persons meeting the denominator criteria of a given measure. This is consistent with suppression rules used by CMS.[5] The suppression rule is also responsible for some of the decrease in the number of reported clinics.

[5] "CMS Cell Size Suppression Policy," Research Data Assistance Center, accessed June 5, 2017, https://www.resdac.org/resconnect/articles/26.

Methodology

The Transparency Advisory Group (TAG) is a subcommittee of the HDC tasked with convening public meetings of community stakeholders to provide guidance on health care cost and quality transparency. TAG is jointly staffed by OHCS and HealthInsight Utah and was specifically formed to address the reporting requirements in law. Quality measures reported in the clinic comparisons were reviewed and selected by the group during public meetings held in 2016.

After completing the review of quality measures with community stakeholders, TAG selected three new quality measures for clinic comparisons: Breast Cancer Screening (BCS), Use of Imaging for Lower Back Pain (LBP), and Medication Management for People with Asthma (MMA). These are in addition to the two previously published measures: Avoidance of Antibiotic Treatment for Adults with Acute Bronchitis (AAB) and Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Testing. TAG also formed the Medical Provider Subcommittee (MPS) to review the results of quality measure calculations and provide feedback on patient attribution models.

The methods used for calculating quality measures, identifying clinics, and attributing patients using Utah's 2015 APCD data are the subject of the following subsections.

Quality Measures

The five measures selected by TAG are based on NCQA's Healthcare Data and Information Set (HEDIS) and are endorsed by the National Quality Forum (NQF). The eligibility, denominator, and numerator criteria are listed below along with a brief explanation of the measure's value.

Avoidance of Antibiotic Treatment in Adults with Acute Bronchitis (NQF# 0058)

AAB measures the percentage of adults 18–64 years of age with a diagnosis of acute bronchitis who were not dispensed an antibiotic prescription (a high rate is better).

> Acute bronchitis almost always gets better on its own; therefore, adults who do not have other health problems should not take antibiotics. Ensuring the appropriate use of antibiotics for patients with acute bronchitis will help them avoid harmful side-effects and possible resistance to antibiotics over time.[6]

Eligibility:

[6] "Avoidance of Antibitotic Treatment in Adults with Acute Bronchitis," National Committee for Quality Assurance, accessed March 20, 2017, http://www.ncqa.org/report-cards/health-plans/state-of-health-care-quality/2016-table-of-contents/acute-bronchitis.

- Age 18-64 at end of measurement period.
- Includes commercial and Medicaid lines of business.
- Continuous enrollment in primary medical coverage during 12 months prior to index event and 7 days after with no more than one month gap in coverage during this time.

Numerator:

- Person has pharmacy claim for antibiotic prescription with filled date between index event date and 3 days after the index event date. An index event is described as the first occurrence of the outpatient, emergency department or observation visit.
- Measure uses an inverted rate: 1-(numerator/denominator). This calculation is done in the reporting layer.

Denominator:

- Must have one outpatient, emergency department or observation visit between January 1 and December 24 of the measurement year with a diagnosis of acute bronchitis and none of the following:
    - Any claim/encounter within 12 months prior to the index event with a comorbid condition: HIV, malignant neoplasms, emphysema, COPD, cystic fibrosis, or comorbid conditions.
    - Antibiotic medication with filled-date within 30 days prior to the index event or was active on the index event date.
    - Pharyngitis or competing diagnosis within 30 days prior to index event or 7 days after.

Breast Cancer Screening (NQF# 2372)

BCS measures the percentage of women age 50-74 who received at least one mammogram in the last two years.

> Aside from some forms of skin cancer, breast cancer is the most common cancer among American women, regardless of race or ethnicity. Screening can improve outcomes: early detection reduces the risk of dying from breast cancer and can lead to a greater range of treatment options and lower health care costs.[7]

Eligibility:

- Women age 52-74 as of December 31 of the measurement year.
- Continuous enrollment from October 1 to December 31 two years prior to the measurement year with no gap.
- Continuous enrollment in the measurement year and the year prior to the measurement year.
- No more than a single month gap during each full year of continuous enrollment.

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[7] "Breast Cancer Screening," National Committee for Quality Assurance, accessed June 5, 2017, http://www.ncqa.org/report-cards/health-plans/state-of-health-care-quality/2016-table-of-contents/breast-cancer.

Numerator:

- One or more mammograms any time on or between October 1 two years prior to the measurement year and December 31 of the measurement year.

Denominator:

- The eligible population.

Exclusions:

- Members in hospice are excluded from the eligible population.
- Bilateral mastectomy any time during the member's history through December 31 of the measurement year.

Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Testing (NQF# 0057)

HbA1c measures the percentage of adults age 18-75 with diabetes (type 1 and type 2) who had a blood sugar test.

> Proper diabetes management is essential to control blood glucose, reduce risk of complications and prolong life. With support from health care providers, patients can manage their diabetes with self-care, taking medications as instructed, eating a healthy diet, being physically active and quitting smoking.[8]

Eligibility:

- Age at end of measurement period between 18 and 75.
- All lines of business included.
- Continuous enrollment with minimum of 11 months eligibility of primary medical coverage during measurement period.

Numerator:

- A visit for that enrollee is tagged with HbA1c test and visit service start date during measurement period.

Denominator:

- Identification of diabetes requires one of the following (using one year look back):
    - At least two visits in outpatient, observation or non-acute inpatient setting on separate dates during the measurement period or prior year with a diabetes diagnosis code.
    - One visit in an acute inpatient or Emergency Room setting during the measurement period or prior year with a diabetes diagnosis.
    - A pharmacy claim for insulin or hypoglycemic/anti-hyperglycemic during the measurement period or prior year.

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[8] "Comprehensive Diabetes Care," National Committee for Quality Assurance, accessed March 20, 2017, http://www.ncqa.org/report-cards/health-plans/state-of-health-care-quality/2016-table-of-contents/diabetes-care.

Exclusions:

- No claim history with a diagnosis of polycystic ovaries.
- No diagnosis of period induced or gestational diabetes in the measurement period or prior year.

Medication Management for People with Asthma (NQF# 1799)

MMA measures the percentage of people 5-85 years of age with persistent asthma who were dispensed appropriate asthma controller medications for at least 75% of the measurement period.

> Appropriate medication management for patients with asthma could reduce the need for rescue medication—as well as the costs associated with ER visits, inpatient admissions and missed days of work or school.[9]

Eligibility:

- Age 5 to 85 as of December 31 of the measurement year.
- Continuous enrollment during the measurement year and the year prior to the measurement year.
- No more than a single month gap during each year of continuous enrollment.

Numerator:

- People who achieved a "proportion days covered" for asthma controller medications at least 50% of the time.

Denominator:

- People who meet at least one of the following criteria during the measurement year and the year prior to the measurement year:
  - At least one ED visit with a principal diagnosis of asthma.
  - At least one acute inpatient encounter with a principal diagnosis of asthma.
  - At least four outpatient visits or observation visits on different dates with any diagnosis of asthma and at least two asthma medication dispensing events.
  - At least four asthma medication dispensing events.

Exclusions:

- Exclude people who have a history of emphysema, COPD, obstructive chronic bronchitis, chronic respiratory conditions due to fumes or vapors, cystic fibrosis, and acute respiratory failure.
- People who had no asthma controller medications dispensed in the measurement year.

[9] "Use of Appropriate Medications for People with Asthma and Medication Management for People with Asthma," National Committee for Quality Assurance, accessed March 20, 2017, http://www.ncqa.org/report-cards/health-plans/state-of-health-care-quality/2016-table-of-contents/asthma.

Use of Imaging Studies for Low Back Pain (NQF# 0052)

LBP measures the percentage of adults 18-50 years of age with a diagnosis of lower back pain who did not receive an imaging procedure, such as X-ray, MRI, or CT scan (a higher rate is better).

> For the great majority of individuals who experience severe low back pain, pain improves within the first two weeks of onset Avoiding imaging (i.e., X-ray, MRI, CT scans) for patients when there is no clinical necessity, can prevent unnecessary harm, unintended consequences to patients and reduce health care costs.[10]

Eligibility:

- Age at end of measurement period between 19 and 50.
- Continuous enrollment 6 months prior to the index event through 28 days after the index event.
- No gaps in enrollment during the aforementioned period.

Numerator:

- An imaging study with a diagnosis of low back pain on the date of the index event or within 28 days.

Denominator:

- People with an outpatient or ED visit with a primary diagnosis of low back pain.

Exclusions:

- No diagnosis of low back pain during the 6 months prior to the index event.
- Exclude people who have or have had cancer, recent trauma, intravenous drug abuse, or neurologic impairment diagnoses.

Clinic Identification

The Center for Medicare and Medicaid Services, National Plan and Provider Enumeration System (NPPES) maintains a registry of National Provider Identifiers (NPI). Individuals and organizations apply for NPIs and self-report names, specialties, and addresses. An NPI is a common data element on claims and OHCS incorporated the NPPES registry into the APCD to help identify clinics with five or more physicians.

To identify clinics subject to reporting requirements and relevant to the nature of the measures, OHCS used *billing group* NPIs and *servicing provider* NPIs associated with claims in the APCD. The claims were first filtered using the following criteria:

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[10] "Use of Imagine Studies for Low Back Pain," National Committee for Quality Assurance, accessed March 20, 2017, http://www.ncqa.org/report-cards/health-plans/state-of-health-care-quality/2016-table-of-contents/low-back-pain.

1. Service performed in 2015.
2. Service was an “office visit”:
    a. CPT codes 99201-99205 and 99211-99215
3. Service was performed by *servicing provider* with a self-reported “primary care” primary taxonomy code:
    a. 207Q00000X (Family Medicine)
    b. 207QA0000X (Family Medicine - Adolescent Medicine)
    c. 207QA0505X (Family Medicine - Adult Medicine)
    d. 207QG0300X (Family Medicine - Geriatric Medicine)
    e. 208D00000X (General Practice)
    f. 207R00000X (Internal Medicine)
    g. 207RA0000X (Internal Medicine - Adolescent Medicine)
    h. 207RG0300X (Internal Medicine - Geriatric Medicine)
    i. 208000000X (Pediatrics)
    j. 2080A0000X (Pediatrics - Adolescent Medicine)
    k. 363L00000X (Nurse Practitioner)
    l. 363LA2200X (Nurse Practitioner - Adult Health)
    m. 363LF0000X (Nurse Practitioner - Family)
    n. 363LG0600X (Nurse Practitioner - Gerontology)
    o. 363LX0001X (Nurse Practitioner - Obstetrics & Gynecology)
    p. 363LP0200X (Nurse Practitioner - Pediatrics)
    q. 363LP2300X (Nurse Practitioner - Primary Care)
    r. 363A00000X (Physician Assistant)
    s. 363AM0700X (Physician Assistant - Medical)
    t. 261QC1500X (Clinic/Center - Community Health)
    u. 261QC1800X (Clinic/Center - Corporate Health)
    v. 261QF0400X (Clinic/Center - Federally Qualified Health Center (FQHC))
    w. 261QH0100X (Clinic/Center - Health Service)
    x. 261QM1300X (Clinic/Center - Multi-Specialty)
    y. 261QP2300X (Clinic/Center - Primary Care)
    z. 261QP2400X (Clinic/Center - Prison Health)
    aa. 261QP0904X (Clinic/Center - Public Health, Federal)
    bb. 261QP0905X (Clinic/Center - Public Health, State or Local)
    cc. 261QR1300X (Clinic/Center - Rural Health)
    dd. 261QS1000X (Clinic/Center - Student Health)
    ee. 261QV0200X (Clinic/Center - VA)
4. Service was performed by a *billing group* with a self-reported “primary care” primary taxonomy code:
    a. 207Q00000X (Family Medicine)
    b. 207QA0000X (Family Medicine - Adolescent Medicine)
    c. 207QA0505X (Family Medicine - Adult Medicine)
    d. 207QG0300X (Family Medicine - Geriatric Medicine)

e. 208D00000X (General Practice)
f. 207R00000X (Internal Medicine)
g. 207RA0000X (Internal Medicine - Adolescent Medicine)
h. 207RG0300X (Internal Medicine - Geriatric Medicine)
i. 208000000X (Pediatrics)
j. 2080A0000X (Pediatrics - Adolescent Medicine)
k. 363L00000X (Nurse Practitioner)
l. 363LA2200X (Nurse Practitioner - Adult Health)
m. 363LF0000X (Nurse Practitioner - Family)
n. 363LG0600X (Nurse Practitioner - Gerontology)
o. 363LX0001X (Nurse Practitioner - Obstetrics & Gynecology)
p. 363LP0200X (Nurse Practitioner - Pediatrics)
q. 363LP2300X (Nurse Practitioner - Primary Care)
r. 363A00000X (Physician Assistant)
s. 363AM0700X (Physician Assistant - Medical)
t. 261QC1500X (Clinic/Center - Community Health)
u. 261QC1800X (Clinic/Center - Corporate Health)
v. 261QF0400X (Clinic/Center - Federally Qualified Health Center (FQHC))
w. 261QH0100X (Clinic/Center - Health Service)
x. 261QM1300X (Clinic/Center - Multi-Specialty)
y. 261QP2300X (Clinic/Center - Primary Care)
z. 261QP2400X (Clinic/Center - Prison Health)
aa. 261QP0904X (Clinic/Center - Public Health, Federal)
bb. 261QP0905X (Clinic/Center - Public Health, State or Local)
cc. 261QR1300X (Clinic/Center - Rural Health)
dd. 261QS1000X (Clinic/Center - Student Health)
ee. 261QV0200X (Clinic/Center - VA)

5. Service was performed by a *billing group* with a Utah address

Note: In the absence of a billing group NPI or servicing provider NPI, the reported NPI was used for both billing group and servicing provider.

After the claims were filtered according to the above criteria, clinics were identified as the unique *billing group* NPIs remaining in the data. Physician count was determined by the number of unique *servicing provider* NPIs associated with the *billing group* NPIs.

Attribution

This section describes the models used for attributing a patient to a primary care clinic. It is important to note that there is no standard method, or “model,” for attributing a patient to a health care provider. An NQF literature review found 170 different attribution models that have

been implemented or proposed.[11] The clinical circumstance (episodic acute, chronic), type of providers identified (primary care), and the purpose of attribution (quality of care measurement) were considered when selecting attribution models. As a result of a transparent multi-stakeholder review, OHCS chose to use multiple attribution models. These attribution models are reviewed as new measures are introduced.

The first model attributes a patient to as many "primary care" clinics as they visited during the measurement period, where a primary care clinic is identified according to the criteria listed in the previous section. This one-to-many attribution model is used for the HbA1c testing measure. A diabetic may receive care from several health care providers, all of whom should know a blood sugar test was performed or should order an annual blood sugar test if needed. By attributing a patient to all providers seen in a measurement period, all providers receive the benefit of the work of their peers and the potential that a provider's quality score is degraded without them having seen a patient is reduced as much as possible. This model was applied to the MMA and BCS measures which are new this year.

The second model attributes patients receiving acute care to the provider generating the claim that triggers inclusion in a quality measure. Triggering event attribution is used for the AAB measure. Similar to the one-to-many attribution model, triggering event attribution reduces as much as possible the risk that a provider is penalized for prescribing an antibiotic to a patient they see regularly but did not treat for acute bronchitis. This model was applied to the LBP measure which is new this year.

[11] National Quality Forum, "Attribution: Principles and Approaches," December 2016, 8.

Additional Information

Please contact OHCS at healthcarestat@utah.gov or with any questions regarding clinic quality comparisons.