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**Challenges in Healthcare Quality Transparency Efforts
in Respect to U.S. Medical Practices**

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ABSTRACT

Healthcare transparency efforts are being encouraged across states, and across markets. These efforts to report on the costs associated with healthcare and provider quality performance are aimed at providing consumers with information that will improve decision making. Many of the current transparency approaches focus on cost comparisons. Yet, evaluation of providers on cost only is inappropriate – quality must also be considered. Additionally, transparency quality measures are increasingly impacting payment practices for providers. Value-based payment systems are shifting traditional payment strategies from pay for quantity to pay for quality.

This paper reviews the key challenges to transparency reporting on quality in health care. Reporting efforts are dependent on the type and accuracy of available data. Most often, the available data are historical claims data. Claims data have limitations as well as benefits. Other important challenges center on strategic reporting decisions such as what type of providers to focus upon, what measures to use, and how to fairly adjust measure results for accurate representation.

INTRODUCTION

The healthcare payment system of the United States has evolved through numerous policy enactments into a market divided by public payment sources (Medicare , Medicaid, and Veteran’s Affairs) and private payment sources (commercial health insurance). The healthcare delivery system of the United States has yet primarily relied on a market-based economy. As such, the delivery system focuses on providers (professionals and facilities) who operate under market forces to supply services and resources, to determine prices. And price, as defined by value, is often a function of what the market will bear as well as quality of services.

The key constituents in the US healthcare market are (1) the consumers, (2) the payers (health plans), (3) the purchasers (employer groups), and (4) the providers themselves. Each constituent is known to make decisions based on market forces such as availability, price and quality¹. Decisions by constituents, therefore, rely on disclosure of data related to these forces: availability, price and quality. Current efforts in the US healthcare system focus on transparency, primarily as directed to the consumer to ensure decisions based on value.

The movement towards transparency has been driven by numerous changes in the US healthcare

system. The Affordable Care Act has promoted the Triple Aim in healthcare. The Triple Aim is focused on the improvement of the value of health care services in terms of improved quality of care for individuals, improved overall population health and reduction in costs². Value is often defined as optimal care at a fair price. These objectives all require measuring, reporting, and rewarding provider performance based on quality measures.

Value based healthcare has also become a mantra for structuring reimbursement/payment practices. CMS has been a leader in value-based payment design. The MACRA (Medicare Access and CHIP Reauthorization Act) Quality Payment Program promotes a merit based incentive payment system (MIPS) that will affect physician payment based upon performance measures. MACRA also offers the option of payment through alternative payment models (APMS), which are commonly thought of as accountable care organizations and bundled payment models, also subject to performance assessment³.

Value based payment strategies have also been implemented by the private sector as a means to shift from traditional volume based provider payments towards payment agreements based on quality and outcomes. Often referred to as pay-for-performance programs, or P4P (Payment For Performance), or incentive programs, these strategies often supplement established fee schedule rates with additional reimbursement based on provider performance on select quality metrics^{4,5}.

An underlying principle of the value based system is that there is variance in quality outcomes among similar providers. Continuing increases in healthcare expenditures, along with variations in quality have resulted in the market responses that move provider payment to a system that considers both cost and quality as a determination of value. The analysis of quality requires comprehensive data acquisition, fairness and accuracy in data analysis, and transparency in reporting. This review considers the challenges in these critical factors of healthcare transparency focused primarily on quality analysis of physician providers.

PRIMARY CARE, SPECIALTY, OR GROUP PRACTICE

A transparency project must determine the key questions of WHO is reviewed for quality reporting as well as WHAT measures are reported. The provider types reviewed, hospitals aside, could be (1) individual primary care providers (PCPs), (2) specialists, or (3) clinics or group practices⁷. If PCPs were the subject of the transparency reporting, the measure might focus on general patient management, but if specialists

were the subjects, then perhaps the focus would be on specific procedures or services. The discussion of what measures are available for use follows, and it is evident that the choice of measures is impacted by the question of what type of provider is reviewed. Any approach will have other challenges that must be addressed in the methodology.

MEASURE SELECTION FOR TRANSPARENCY REPORTING

Quality reporting of health plans using administrative claims data has been conducted for many years. Specifically the National Committee for Quality Assurance (NCQA) has developed the HEDIS® measures that assess quality of Medicare, Medicaid, and commercial health plans. The National Quality Forum (NQF) endorses standards used to measure and report on the quality and efficiency of healthcare. These two sets of standards mirror each other and serve as the basis for measuring health plans and Accountable Care Organizations (ACO).

However, the measures developed by NCQA and NQF have been developed to assess services delivered to a captured population. Members of a health plan are “captured” within that health plan and cannot seek services outside the plan. Members of an accountable care organization are essentially “captured” within that ACO, and the ACO accepts responsibility for management of those members. It is very difficult to translate measures designed to evaluate performance within a captured population to the evaluation of an individual provider who cannot “capture” the member.

PQRS Measures

CMS has implemented the Physician Quality reporting System (PQRS) which reports on provider quality of care to Medicare fee-for-service patients. In 2015 CMS applied a payment adjustment to providers who failed to appropriately report, thus reducing their payment for services⁸.

For this review, the authors evaluated each of the 284 PQRS measures to assess their appropriateness for provider performance transparency reporting, using claims data. The team reviewed the requirements and components of each measure to identify those that were determined to be feasibly applied to claims data and individual physician measures.

The process was as follows:

1. Filter on measures that could be derived from claims data only.
2. Filter on measures that focus on the following measure types: Efficiency and Process
3. Filter on measures that focus on the following domain: Effective Clinical Care, Efficiency

and Cost Reduction and Patient Safety

4. Then each measure was reviewed in detail which resulted in some further exclusions.

At the end of the filtering and review process we determined that there were only 19 measures that could be accurately assessed using claims data only, and which provided a degree of relevance to the consumer public. Yet, of the 19, only 8 could be applied to primary care physicians, with the remainder directed toward specialists such as emergency medicine, surgery, neurology, and obstetrics/gynecology. (See Appendix A).

QECP Measures

CMS has also established a certification program to review, monitor and approve organizations that agree to produce reports on provider quality. Dubbed the Qualified Entity Certification for Medicare Data Program (QECP), this status came about as a result of the Affordable Care Act of 2010 which included a provision to make available to qualified entities standardized extracts of Medicare fee-for-service claims data for the purpose of measuring health care provider performance. The QECP program is intended to promote transparency of health care services. The QECP compiled a list of standard measures that are suggested for use by Qualified Entities (QEs) to evaluate and report on the performance of providers⁹. Measures included were those endorsed by the CMS PQRS (Physician Quality Reporting System) program, the NQF (National Quality Forum) and NCQA (National Committee on Quality Assurance), in an attempt to identify acceptable measures and methodologies. The list details over 700 measures, many of which are duplicates but reported by more than one agency. When this list is reviewed and reduced to possible measures suitable for reporting on physicians with claims data, the possible measures are limited to 117, with several that are relatively obscure and of questionable interest to the consumer. (See Appendix B).

ACO Measures

Accountable Care Organizations (ACOs) have been promoted by CMS as groups of providers and suppliers of services (e.g., hospitals, physicians, and others involved in patient care) that agree to work together to coordinate care for the Medicare Fee-For-Service (FFS) patients they serve. As an organized provider group, the principle concepts of ACO performance can be universally applied to all “captured” patient populations.

For the purposes of provider transparency, we suggest that the measures developed for quality measurement of ACOs in Medicare are best applied to reporting on provider practice groups rather than individual practitioners. The benefit to reporting by group is to allow for common patients to seek various

care services related to the disease condition from any specialty practicing within the group.

The ACO measures are appropriate for a quality measurement program that focuses on coordinated, multi-specialty care and has an appropriate means to attribute patients to provider groups. The measures include specific components related to the following domains¹⁰:

1. Domain: patient/ caregiver experience: cannot be reported with claims data only
2. Domain: care coordination/ patient safety
3. Domain: preventive health
4. Domain: at-risk populations
 - A. Diabetes
 - B. Hypertension
 - C. Ischemic vascular disease
 - D. Heart failure
 - E. Coronary artery disease
 - F. Depression

Not all of the ACO measures can be accurately analyzed using claims data only.

BRIDGES TO EXCELLENCE Measures

The Bridges to Excellence (BTE) program is a physician quality reporting process produced by Healthcare Incentives Improvement Institute – HCI3, which is a non-profit organization that has created programs to measure health outcomes. The BTE measures are designed to measure the quality of care from specific providers. The measures focus on chronic conditions, and are therefore designed to be applied to general practice physicians who manage patient care¹¹. The BTE program has been used by several commercial carriers who analyze claims to assess performance for provider incentive programs¹².

The BTE measures include specific components related to the following disease conditions:

1. Asthma
2. Cardiac
3. Congestive Heart Failure
4. COPD
5. Coronary Artery Disease
6. Diabetes
7. Hypertension

Not all of the BTE measures can be accurately analyzed using claims data only.

RESOURCE USE MEASURES

Resource use measures are designed to assess the value of healthcare delivery in terms of cost and efficiency of health care provision. Resource use measures are constructed using primarily claims data. The Agency for Healthcare Research and Quality (AHRQ) reviewed available resource use measures and classified them into 3 categories¹³:

- 1) Relatively simple measures: these measures are assessment of the resources used in healthcare, for example: utilization rates, preventable services, and costs.
- 2) Complex measures of healthcare resource use: these measures require the application of complex econometric techniques to derive rates and costs
- 3) Measures of episode-based use of resources or population-based resource use.
 - a. Episode-based measures: “Episodes of care” describe events wherein all services related to a particular medical condition or acute event are grouped.
 - b. Population-based measures: These measures group members into a chronic disease group or a morbidity/risk category to evaluate the cost or use of resources over time.

Several national groups, including NQF and CMS have expressed a preference for episode-based measures. Yet, the validity and practical applicability of resources use measures to transparency reporting is unproven. A central challenge is the ability to apply such measures to an individual provider.

BENEFITS AND LIMITATIONS OF CLAIMS DATA

Claims data are commonly used to analyze healthcare services. Most of the current transparency sites such as the All Payer Claims Databases (APCD) rely on claims data submitted by health plans (public and private). The claims data are aggregated so that providers can be assessed across payers. Total cost of care can be reported using claims data, which can report the average cost of consumers as differentiated by age, gender, chronic disease, or geographic region. Provider performance can also be assessed using claims data, as discussed in the measure review above.

The benefits to the use of claims data are many in that;

- (1) the data are readily available,
- (2) the data include values that are numeric or codes,
- (3) the values are often “standardized” (common across data sources),

- (4) the data are generally aggregated by a common population covered by a single payer across an identified time period,
- (5) the data encompass large and often diverse populations
- (6) the data is objective (not self reported)
- (7) claims data provide a reasonable representation of the provision of services
- (8) Claims data also do not require patient authorization

Yet, there are also acknowledged limitations to the use of claims data in healthcare research. Claims data are administrative data that are intended to document the delivery of services for the purpose of payment. The clinical content of administrative data is limited to the codes for procedures and services delivered and the diagnoses codes and the demographic characteristics of the members. No clinical values (such as blood pressure, weight, lab values, etc.) or clinical decision notes are included. Additionally, data not essential for reimbursement may be omitted by the provider, thus possibly underreporting co-morbid diagnoses or services that are bundled or not reimbursable. Hospital claims frequently lack detail of specific services and pharmaceutical use due to the use of revenue codes for billing.

Despite such potential gaps in clinical information and the billing documentation found in claims data, administrative data allow some insight into effectiveness and efficiency in healthcare. Specifically, researchers are able to analyze:

- (1) the outcomes associated with processes of care
- (2) the outcomes related to varying treatment approaches
- (3) the sequencing of services delivered across providers
- (4) adherence or variation in care guidelines/standards
- (5) identification of errors of omission or commission
- (6) assessment of groups of patients with rare conditions
- (7) assessment of the total cost of care for certain diagnoses
- (8) assessment of the total cost of care for certain episodes
- (9) assessment of the total cost of care for procedures

ISSUE OF ATTRIBUTION

If the transparency reporting focuses on measures of general patient management (ie: diabetes management), then a key issue is attribution of patients to a single provider. Because members have the

freedom to seek services from any provider, a methodology must be identified to hold a single provider accountable to a single patient.

If alternatively, the transparency reporting focuses on patient management within a clinic or provider group, then the challenge is linking single providers to a clinic, group or multi-specialty group. The type and size of groups to be reviewed would also have to be defined.

Proper methodology for attribution of provider to patient and attribution of provider to provider group requires the inclusion of specific details in the claims data or the provider or member files that support the claims data. This data includes (1) the NPI (National Provider Identification) which uniquely identifies a provider, (2) the servicing provider ID on the claim, and (3) the billing provider ID on the claim or the provider file.

Because patients see many providers, the subsequent challenge is to identify a rule making a single provider the responsible provider, one whose quality reporting includes that patient. This is most often applied to primary care practices, which are generally assumed to be responsible for overall patient management. “Leakage” or the loss of members would need to be assessed and accounted for. For specialty services, when quality is evaluated in terms of specific procedures, the issue of attribution is not as contentious.

Provider quality assessment is often performed using claims data, it becomes by nature retrospective, viewing historical claims to evaluate performance. Attribution may be assigned retrospectively as well, in which case the patient-provider attribution is based on prior year data, or the attribution may be considered concurrent, where the assignment is based on the reporting year (or period) upon completion of that period^{14,15}.

For primary care attribution, CMS uses a methodology known as the “plurality of primary care attribution method”¹⁵. Under this method, which applies only to Medicare fee-for-service, members are attributed to the provider that billed the greatest dollar amount of evaluation and management services. Other reporting agencies attribute based on the quantity of evaluation and management services in primary care¹⁶.

NEED FOR ADJUSTING FOR RISK

Risk adjustment is a statistical method of normalizing a population for the purpose of analysis. The process of risk adjustment includes the analysis of individual members to assess their demographic factors, clinical history and history of resource use. This information is then used to assign a risk score to each individual. This risk score can then be used as a factor in statistical analysis to account for differences in individual risk factors that can impact quality outcomes or costs¹³. The intent of risk adjustment is to enable more accurate comparisons of providers, despite the existence of different risk factors among the patients they serve¹⁷. CMS applies risk adjustment to some of the Physician Quality Reporting System measures.

Transparency projects that rely on claims data can apply risk adjustment methodology to the analysis and reporting. There are several risk adjustment tools and software available as open source or as privately licensed software.

ACCOUNTING FOR PATIENT BEHAVIOR AND LIFESTYLE CHOICES

Risk factors analyzed in risk adjustment processes are related primarily to age, gender, clinical conditions, and historical utilization, which are often beyond the control of the provider. Other factors outside of the provider control or influence are patient behaviors lifestyle choices, and socio-economic or cultural states that can impact health status and access to care. For example, a physician practicing in a low socio-economic (SES) environment may receive lower ratings when patient access to services is limited due to transportation, out-of-pocket fees or lack of delivery sites. Other drivers of patient non-compliance may be related to cultural beliefs, thus impacting scores for physicians practicing in culturally homogenous locations.

Therefore, to account for variations in patient lifestyle, culture and socio-economic status factors that influence health and treatment compliance, results would have to either be adjusted or reported by geographic area or demographic characteristics. These issues would need to be accounted for in measure analysis and reporting to ensure equal expectation of the effect of patient decision-making/recommendations on patient populations.

CONCLUSION

Health care providers compete within the US health care system in their efforts to attract patients and to be included in health plan provider networks. And studies of variations have shown that

providers do not produce identical results in either cost or quality of services. Yet, in the current market, readily available, comprehensive information on provider performance needed to assess both cost and quality is not generally available to the public.

Transparency reporting efforts are quickly growing in both the public and private healthcare markets. Driven by the value-based approach to healthcare reimbursement, consumers and payers need accurate information on price and quality. Cost of care alone, is not sufficient to evaluate provider performance. There is no interest to direct consumers to low-cost providers regardless of quality. Thus quality measures and cost analysis must be reported in conjunction.

Economic theory would suggest that in a true competitive market, both cost and quality should begin to converge to the median. In such a market, when price is similar, competition will be based on quality. Yet, the healthcare market encounters various challenges to quality reporting. Choice of measures, as well as selection of targeted providers (individual primary care, specialist, or groups), and comprehensiveness of available data all complicate the effort. Additionally, accuracy and fairness must be strived for by adjusting results for risk and patient factors that are beyond the provider's control. Adjustment for such factors is not sufficient if the presentation and discussion of the measure results remains too complex for the consumer.

As transparency efforts expand, these challenges must be openly addressed. Recent efforts by the Center for Health Care Transparency, an initiative sponsored by the Network for Regional Healthcare Improvement, attempt to align transparency organizations. The APCD Council, a collaborative organization of all-payer-claims-databases is another organization working towards mutual goals in transparency.

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ATTACHMENT A:

| COMPARISON OF QUALIFIED ENTITIES (QE)* QUALITY REPORTING | | | | | | |
|---|----------------------------|--|-----------------------|--|------------------------|---------------------------------------|
| QE AND LOCATION | LOCATION | DATA SOURCE | MEASURE SOURCE | PROVIDER | RISK ADJUSTMENT | ATTRIBUTION METHOD |
| Amino | Nationwide | Claims | Other | All (PCP, Specialists) | Yes | n/a |
| California Healthcare Performance Information System (CHPI) | California | Claims | Other | Group | Yes | n/a |
| Center for Improving Value in Health Care (CIVHC) | Colorado | Claims | Mixed | PCPs | Yes | Most Visits (E/M or total PCP visits) |
| FAIR Health | Nationwide | Claims | n/a | Both | n/a | n/a |
| Health Care Cost Institute | Nationwide | Claims | n/a | Group | n/a | n/a |
| HealthInsight | Utah | Hospital Process of Care Measures/HCAHPS | Other | Group | n/a | n/a |
| Maine Health Management Coalition (MHMC) | Maine | Claims | n/a | PCP | n/a | Most visits |
| Midwest Health Initiative (MHI) | Illinois, Missouri, Kansas | Claims | Mixed | Group | n/a | n/a |
| Minnesota Department of Health, Division of Health Policy (MDH-DHP) | Minnesota | Claims | Other | Clinic | Yes | n/a |
| OptumLabs | Nationwide | Claims | NQF | n/a | n/a | n/a |
| Oregon Health Care Quality Corporation (Q Corp) | Oregon | Claims | Mixed | PCP/Clinic including Pediatric and Geriatric and OBGyn | Yes | Most visits |

| COMPARISON OF QUALIFIED ENTITIES (QE)* QUALITY REPORTING | | | | | | |
|---|-----------------|--------------------|---|-----------------|------------------------|---------------------------|
| QE AND LOCATION | LOCATION | DATA SOURCE | MEASURE SOURCE | PROVIDER | RISK ADJUSTMENT | ATTRIBUTION METHOD |
| Pittsburgh Regional Health Initiative (PRHI) | Pittsburgh | Claims | Other | Group | n/a | n/a |
| The Health Collaborative | Ohio, Kentucky | Claims | Mixed | Group | n/a | n/a |
| Virginia Health Information | Virginia | Claims | n/a | Group | n/a | n/a |
| Wisconsin Health Information Organization | Wisconsin | Claims | Symmetry EBM Connect: mix HEDIS, NQF | Group | Yes | Most visits |

* QE is a Qualified Entity that has achieved Qualified Entity Certification for Medicare Data Program from CMS

Data compiled August 30, 2016 from QE websites and interviews by Joseph Chen, PhD Graduate Student at University of Texas School of Public Health

APPENDIX A: QECF Measures After Filtering

| Measure Title | PQRS | Medical Care | Measure Description |
|---|------|--------------|---|
| Age-Related Macular Degeneration (AMD): Dilated Macular Examination | 014 | Primary Care | Percentage of patients aged 50 years and older with a diagnosis of age-related macular degeneration (AMD) who had a dilated macular examination performed which included documentation of the presence or absence of macular thickening or hemorrhage AND the level of macular degeneration severity during one or more office visits within 12 months |
| Perioperative Care: Selection of Prophylactic Antibiotic – First OR Second Generation Cephalosporin | 021 | Surgery | Percentage of surgical patients aged 18 years and older undergoing procedures with the indications for a first OR second generation cephalosporin prophylactic antibiotic, who had an order for a first OR second generation cephalosporin for antimicrobial prophylaxis |
| Perioperative Care: Discontinuation of Prophylactic Parenteral Antibiotics (Non-Cardiac Procedures) | 022 | Surgery | Percentage of non-cardiac surgical patients aged 18 years and older undergoing procedures with the indications for prophylactic parenteral antibiotics AND who received a prophylactic parenteral antibiotic, who have an order for discontinuation of prophylactic parenteral antibiotics within 24 hours of surgical end time |
| Perioperative Care: Venous Thromboembolism (VTE) Prophylaxis (When Indicated in ALL Patients) | 023 | Surgery | Percentage of surgical patients aged 18 years and older undergoing procedures for which VTE prophylaxis is indicated in all patients, who had an order for Low Molecular Weight Heparin (LMWH), Low-Dose Unfractionated Heparin (LDUH), adjusted-dose warfarin, fondaparinux or mechanical prophylaxis to be given within 24 hours prior to incision time or within 24 hours after surgery end time |
| Screening for Osteoporosis for Women Aged 65-85 Years of Age | 039 | Primary Care | Percentage of female patients aged 65-85 years of age who ever had a central dual-energy X-ray absorptiometry (DXA) to check for osteoporosis |
| Osteoporosis: Pharmacologic Therapy for Men and Women Aged 50 Years and Older | 041 | Primary Care | Percentage of patients aged 50 years and older with a diagnosis of osteoporosis who were prescribed pharmacologic therapy within 12 months |

| Measure Title | PQR S | Medical Care | Measure Description |
|---|-------|--------------------|--|
| Chronic Obstructive Pulmonary Disease (COPD): Spirometry Evaluation | 051 | Primary Care | Percentage of patients aged 18 years and older with a diagnosis of COPD who had spirometry results documented |
| Emergency Medicine: 12-Lead Electrocardiogram (ECG) Performed for Non-Traumatic Chest Pain | 054 | Emergency Medicine | Percentage of patients aged 40 years and older with an emergency department discharge diagnosis of non-traumatic chest pain who had a 12-lead electrocardiogram (ECG) performed |
| Acute Otitis Externa (AOE): Topical Therapy | 091 | Primary Care | Percentage of patients aged 2 years and older with a diagnosis of AOE who were prescribed topical preparations |
| Acute Otitis Externa (AOE): Systemic Antimicrobial Therapy – Avoidance of Inappropriate Use | 093 | Primary Care | Percentage of patients aged 2 years and older with a diagnosis of AOE who were not prescribed systemic antimicrobial therapy |
| Rh Immunoglobulin (Rhogam) for Rh-Negative Pregnant Women at Risk of Fetal Blood Exposure | 255 | Emergency Medicine | Percentage of Rh-negative pregnant women aged 14-50 years at risk of fetal blood exposure who receive Rh-Immunoglobulin (Rhogam) in the emergency department (ED) |
| Atrial Fibrillation and Atrial Flutter: Chronic Anticoagulation Therapy | 326 | Primary Care | Percentage of patients aged 18 years and older with a diagnosis of nonvalvular atrial fibrillation (AF) or atrial flutter whose assessment of the specified thromboembolic risk factors indicate one or more high-risk factors or more than one moderate risk factor, as determined by CHADS2 risk stratification, who are prescribed warfarin OR another oral anticoagulant drug that is FDA approved for the prevention of thromboembolism |
| Emergency Medicine: Emergency Department Utilization of CT for Minor Blunt Head Trauma for Patients Aged 18 Years and Older | 415 | Emergency Medicine | Percentage of emergency department visits for patients aged 18 years and older who presented within 24 hours of a minor blunt head trauma with a Glasgow Coma Scale (GCS) score of 15 and who had a head CT for trauma ordered by an emergency care provider who have an indication for a head CT. |

| Measure Title | PQR S | Medical Care | Measure Description |
|---|-------|--------------------|---|
| Emergency Medicine: Emergency Department Utilization of CT for Minor Blunt Head Trauma for Patients Aged 2 through 17 Years | 416 | Emergency Medicine | Percentage of emergency department visits for patients aged 2 through 17 years who presented within 24 hours of a minor blunt head trauma with a Glasgow Coma Scale (GCS) score of 15 and who had a head CT for trauma ordered by an emergency care provider who are classified as low risk according to the Pediatric Emergency Care Applied Research Network prediction rules for traumatic brain injury. |
| Osteoporosis Management in Women Who Had a Fracture | 418 | Primary Care | The percentage of women age 50-85 who suffered a fracture and who either had a bone mineral density test or received a prescription for a drug to treat osteoporosis. |
| Overuse Of Neuroimaging For Patients With Primary Headache And A Normal Neurological Examination | 419 | Neurology | Percentage of patients with a diagnosis of primary headache disorder for whom advanced brain imaging was not ordered. |
| Performing Cystoscopy at the Time of Hysterectomy for Pelvic Organ Prolapse to Detect Lower Urinary Tract Injury | 422 | Ob/Gyn | Percentage of patients who undergo cystoscopy to evaluate for lower urinary tract injury at the time of hysterectomy for pelvic organ prolapse. |
| Pelvic Organ Prolapse: Preoperative Screening for Uterine Malignancy | 429 | Ob/Gyn | Percentage of patients who are screened for uterine malignancy prior to surgery for pelvic organ prolapse. |

Source: Centers for Medicare and Medicaid Services Qualified Entity Program:

<https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/index.html?redirect=/pqri>

APPENDIX B: REDUCED QECP STANDARD MEASURE LIST

| <u>NQF#</u> | <u>Measure Type</u> | <u>Measure Title</u> | <u>Data Source</u> | <u>Measure Steward</u> |
|--------------------|----------------------------|--|---|---|
| 0004 | NQF-Endorsed | Initiation and Engagement of Alcohol and Other Drug Dependence Treatment (IET) | Administrative claims, Electronic Clinical Data | National Committee for Quality Assurance (NCQA) |
| 0021 | QE CBE-Endorsed: NCQA | Annual Monitoring for Patients on Persistent Medications | Administrative Claims | National Committee for Quality Assurance (NCQA) |
| 0022 | QE CBE-Endorsed: NCQA | Use of High Risk Medications in the Elderly | Administrative Claims | National Committee for Quality Assurance (NCQA) |
| 0031 | QE CBE-Endorsed: NCQA | Breast Cancer Screening | Administrative Claims | National Committee for Quality Assurance (NCQA) |
| 0033 | CMS Program Measure | Chlamydia Screening | Administrative Claims | National Committee for Quality Assurance (NCQA) |
| 0036 | QE CBE-Endorsed: NCQA | Use of appropriate medications for people with asthma | Administrative claims | National Committee for Quality Assurance (NCQA) |
| 0046 | NQF-Endorsed | Osteoporosis: Screening or Therapy for Women Aged 65 Years and Older | Administrative claims, Electronic Clinical Data | National Committee for Quality Assurance (NCQA) |
| 0052 | QE CBE-Endorsed: NCQA | Use of Imaging Studies for Low Back Pain | Administrative claims | National Committee for Quality Assurance (NCQA) |
| 0053 | QE CBE-Endorsed: NCQA | Osteoporosis Management in Women Who Had a Fracture | Administrative claims | National Committee for Quality Assurance (NCQA) |

| <u>NQF#</u> | <u>Measure Type</u> | <u>Measure Title</u> | <u>Data Source</u> | <u>Measure Steward</u> |
|--------------------|----------------------------|--|---------------------------|---|
| 0054 | CMS Program Measure | C20 - Rheumatoid Arthritis Management | Administrative Claims | National Committee for Quality Assurance (NCQA) |
| 0058 | QE CBE-Endorsed: NCQA | Avoidance of Antibiotic Treatment in Adults with Acute Bronchitis | Administrative claims | National Committee for Quality Assurance (NCQA) |
| 0069 | QE CBE-Endorsed: NCQA | Appropriate treatment for children with upper respiratory infection (URI) | Administrative claims | National Committee for Quality Assurance (NCQA) |
| 0071 | QE CBE-Endorsed: NCQA | Persistence of Beta-Blocker Treatment After a Heart Attack | Administrative claims | National Committee for Quality Assurance (NCQA) |
| 0075 | CMS Program Measure | C03 - Cardiovascular Care - Cholesterol Screening | Administrative Claims | National Committee for Quality Assurance (NCQA) |
| 0105 | CMS Program Measure | DMC03 - Antidepressant Medication Management (6 months) | Administrative Claims | National Committee for Quality Assurance (NCQA) |
| 0108 | NQF-Endorsed | Follow-Up Care for Children Prescribed ADHD Medication (ADD) | Administrative claims | National Committee for Quality Assurance (NCQA) |
| 0171 | NQF-Endorsed | Acute Care Hospitalization During the First 60 Days of Home Health | Administrative claims | Centers for Medicare & Medicaid Services (CMS) |
| 0171 | CMS Program Measure | Acute Care Hospitalization (Claims-Based) | Administrative Claims | Centers for Medicare & Medicaid Services (CMS) |
| 0229 | NQF-Endorsed | Hospital 30-day, all-cause, risk-standardized mortality rate (RSMR) following heart failure (HF) | Administrative claims | Centers for Medicare & Medicaid |

| <u>NQF#</u> | <u>Measure Type</u> | <u>Measure Title</u> | <u>Data Source</u> | <u>Measure Steward</u> |
|--------------------|-----------------------------|--|---------------------------|--|
| | | hospitalization for patients 18 and older. | | Services (CMS) |
| 0229 | CMS Program Measure | Mortality-30-HF: Hospital 30-day, all-cause, risk-standardized mortality rate (RSMR) following heart failure (HF) hospitalization. | Administrative Claims | Centers for Medicare & Medicaid Services (CMS) |
| 0231 | NQF-Endorsed | Pneumonia Mortality Rate (IQI #20) | Administrative claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0268 | NQF-Endorsed - Time-Limited | Perioperative Care: Selection of Prophylactic Antibiotic: First OR Second Generation Cephalosporin | Administrative claims | American Medical Association - Physician Consortium for Performance Improvement (AMA-PCPI) |
| 0271 | NQF-Endorsed - Time-Limited | Perioperative Care: Discontinuation of Prophylactic Parenteral Antibiotics (Non-Cardiac Procedures) | Administrative claims | American Medical Association - Physician Consortium for Performance Improvement (AMA-PCPI) |
| 0272 | NQF-Endorsed | Diabetes Short-Term Complications Admission Rate (PQI 01) | Administrative claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0273 | NQF-Endorsed | Perforated Appendix Admission Rate (PQI 2) | Administrative claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0274 | NQF-Endorsed | Diabetes Long-Term Complications Admission Rate (PQI 03) | Administrative claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0275 | CMS Program Measure | PQI 05: Chronic Obstructive Pulmonary Disease (COPD) Admission Rate | Administrative Claims | Agency for Healthcare Research & |

| <u>NQF#</u> | <u>Measure Type</u> | <u>Measure Title</u> | <u>Data Source</u> | <u>Measure Steward</u> |
|--------------------|----------------------------|--|---------------------------|---|
| | | | | Quality (AHRQ) |
| 0277 | CMS Program Measure | ACO 10 (NQF #0277; AHRQ PQI #08): Ambulatory Sensitive Conditions Admissions: Congestive Heart Failure | Administrative Claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0278 | NQF-Endorsed | Low Birth Weight Rate (PQI 9) | Administrative claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0279 | CMS Program Measure | Bacterial Pneumonia ACSC Measure | Administrative Claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0280 | CMS Program Measure | Dehydration ACSC Measure | Administrative Claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0281 | CMS Program Measure | Urinary Tract Infection ACSC Measure | Administrative Claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0283 | CMS Program Measure | PQI 15: Adult Asthma Admission Rate | Administrative Claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0283 | NQF-Endorsed | Asthma in Younger Adults Admission Rate (PQI 15) | Administrative claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0285 | NQF-Endorsed | Rate of Lower-Extremity Amputation Among Patients With Diabetes (PQI 16) | Administrative claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0337 | NQF-Endorsed | Pressure Ulcer Rate (PDI 2) | Administrative claims | Agency for Healthcare Research & Quality (AHRQ) |

| <u>NQF#</u> | <u>Measure Type</u> | <u>Measure Title</u> | <u>Data Source</u> | <u>Measure Steward</u> |
|--------------------|----------------------------|---|---------------------------|---|
| 0339 | NQF-Endorsed | RACHS-1 Pediatric Heart Surgery Mortality | Administrative claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0340 | NQF-Endorsed | Pediatric Heart Surgery Volume (PDI 7) | Administrative claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0344 | NQF-Endorsed | Accidental Puncture or Laceration Rate (PDI 1) | Administrative claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0346 | NQF-Endorsed | Iatrogenic Pneumothorax Rate (PSI 6) | Administrative claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0347 | NQF-Endorsed | Death Rate in Low-Mortality Diagnosis Related Groups (PSI 2) | Administrative claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0349 | NQF-Endorsed | Transfusion Reaction (PSI 16) | Administrative claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0351 | NQF-Endorsed | Death among surgical inpatients with serious, treatable complications (PSI 4) | Administrative claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0352 | NQF-Endorsed | Failure to Rescue In-Hospital Mortality (risk adjusted) | Administrative claims | The Children's Hospital of Philadelphia |
| 0354 | NQF-Endorsed | Hip Fracture Mortality Rate (IQI 19) | Administrative claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0355 | NQF-Endorsed | Bilateral Cardiac Catheterization Rate (IQI 25) | Administrative claims | Agency for Healthcare Research & Quality |

| <u>NQF#</u> | <u>Measure Type</u> | <u>Measure Title</u> | <u>Data Source</u> | <u>Measure Steward</u> |
|--------------------|----------------------------|---|---------------------------|---|
| | | | | (AHRQ) |
| 0357 | NQF-Endorsed | Abdominal Aortic Aneurysm (AAA) Repair Volume (IQI 4) | Administrative claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0359 | NQF-Endorsed | Abdominal Aortic Aneurysm (AAA) Repair Mortality Rate (IQI 11) | Administrative claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0361 | NQF-Endorsed | Esophageal Resection Volume (IQI 1) | Administrative claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0363 | NQF-Endorsed | Foreign Body Left During Procedure (PSI 5) | Administrative claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0365 | NQF-Endorsed | Pancreatic Resection Mortality Rate (IQI 9) | Administrative claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0368 | CMS Program Measure | PSI 14 Postoperative wound dehiscence in abdominopelvic surgical patients | Administrative Claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0369 | NQF-Endorsed | Dialysis Facility Risk-adjusted Standardized Mortality Ratio | Administrative claims | Centers for Medicare & Medicaid Services (CMS) |
| 0450 | CMS Program Measure | PSI 12 Postoperative pulmonary embolism or deep vein thrombosis rate | Administrative Claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0467 | NQF-Endorsed | Acute Stroke Mortality Rate (IQI 17) | Administrative claims | Agency for Healthcare Research & Quality (AHRQ) |

| <u>NQF#</u> | <u>Measure Type</u> | <u>Measure Title</u> | <u>Data Source</u> | <u>Measure Steward</u> |
|--------------------|----------------------------|--|---------------------------|---|
| 0468 | NQF-Endorsed | Hospital 30-day, all-cause, risk-standardized mortality rate (RSMR) following pneumonia hospitalization | Administrative claims | Centers for Medicare & Medicaid Services (CMS) |
| 0478 | NQF-Endorsed | Neonatal Blood Stream Infection Rate (NQI #3) | Administrative claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0505 | NQF-Endorsed | Hospital 30-day all-cause risk-standardized readmission rate (RSRR) following acute myocardial infarction (AMI) hospitalization. | Administrative claims | Centers for Medicare & Medicaid Services (CMS) |
| 0513 | NQF-Endorsed | Thorax CT: Use of Contrast Material | Administrative claims | Centers for Medicare & Medicaid Services (CMS) |
| 0514 | NQF-Endorsed | MRI Lumbar Spine for Low Back Pain | Administrative claims | Centers for Medicare & Medicaid Services (CMS) |
| 0530 | CMS Program Measure | IQI 91 Mortality for Selected Medical Conditions (Composite) | Administrative Claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0531 | CMS Program Measure | PSI 90 Complication/patient safety for selected indicators (Composite) | Administrative Claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0531 | NQF-Endorsed | Patient Safety for Selected Indicators | Administrative claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0533 | CMS Program Measure | PSI 11: Post Operative Respiratory Failure | Administrative Claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0533 | NQF-Endorsed | Postoperative Respiratory Failure Rate (PSI 11) | Administrative claims | Agency for Healthcare Research & |

| <u>NQF#</u> | <u>Measure Type</u> | <u>Measure Title</u> | <u>Data Source</u> | <u>Measure Steward</u> |
|--------------------|----------------------------|---|---|---|
| | | | | Quality (AHRQ) |
| 0541 | NQF-Endorsed | Proportion of Days Covered (PDC): 3 Rates by Therapeutic Category | Administrative claims | Pharmacy Quality Alliance (PQA, Inc.) |
| 0549 | QE CBE-Endorsed: NCQA | Pharmacotherapy Management of COPD Exacerbation | Administrative Claims | National Committee for Quality Assurance (NCQA) |
| 0576 | NQF-Endorsed | Follow-Up After Hospitalization for Mental Illness (FUH) | Administrative claims, Electronic Clinical Data | National Committee for Quality Assurance (NCQA) |
| 0577 | QE CBE-Endorsed: NCQA | Use of Spirometry Testing in the Assessment and Diagnosis of COPD | Administrative claims | National Committee for Quality Assurance (NCQA) |
| 0581 | NQF-Endorsed | Deep Vein Thrombosis Anticoagulation >= 3 Months | Administrative claims, Electronic Clinical Data | Resolution Health, Inc. |
| 0583 | NQF-Endorsed | Dyslipidemia new med 12-week lipid test | Administrative claims | Resolution Health, Inc. |
| 0587 | NQF-Endorsed | Tympanostomy Tube Hearing Test | Administrative claims | Resolution Health, Inc. |
| 0638 | NQF-Endorsed | Uncontrolled Diabetes Admission Rate (PQI 14) | Administrative claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0669 | NQF-Endorsed | Cardiac Imaging for Preoperative Risk Assessment for Non-Cardiac Low-Risk Surgery | Administrative claims | Centers for Medicare & Medicaid Services (CMS) |
| 0673 | NQF-Endorsed | Physical Therapy or Nursing Rehabilitation/Restorative Care for Long-stay Patients with New Balance Problem | Administrative claims | RAND Corporation |
| 0716 | NQF-Endorsed | Healthy Term Newborn | Administrative claims | California Maternal Quality Care Collaborative |

| <u>NQF#</u> | <u>Measure Type</u> | <u>Measure Title</u> | <u>Data Source</u> | <u>Measure Steward</u> |
|--------------------|----------------------------|---|---------------------------|---|
| 0727 | NQF-Endorsed | Gastroenteritis Admission Rate (PDI 16) | Administrative claims | Agency for Healthcare Research & Quality (AHRQ) |
| 0730 | NQF-Endorsed | Acute Myocardial Infarction (AMI) Mortality Rate | Administrative claims | Agency for Healthcare Research & Quality (AHRQ) |
| 1463 | NQF-Endorsed | Standardized Hospitalization Ratio for Admissions | Administrative claims | Centers for Medicare & Medicaid Services (CMS) |
| 1550 | CMS Program Measure | Hospital-level risk-standardized complication rate (RSCR) following elective primary total hip arthroplasty (THA) and total knee arthroplasty (TKA) | Administrative Claims | Centers for Medicare & Medicaid Services (CMS) |
| 1558 | NQF-Endorsed | Relative Resource Use for People with Cardiovascular Conditions | Administrative claims | National Committee for Quality Assurance (NCQA) |
| 1768 | CMS Program Measure | Plan All-Cause Readmission Rate | Administrative Claims | National Committee for Quality Assurance (NCQA) |
| 1799 | QE CBE-Endorsed: NCQA | Medication Management for People with Asthma (MMA) | Administrative claims | National Committee for Quality Assurance (NCQA) |
| 1879 | CMS Program Measure | Adherence to Antipsychotics for Individuals with Schizophrenia | Administrative Claims | Centers for Medicare & Medicaid Services (CMS) |
| 1893 | NQF-Endorsed | Hospital 30-Day, All-Cause, Risk-Standardized Mortality Rate (RSMR) following Chronic Obstructive Pulmonary Disease (COPD) Hospitalization | Administrative claims | Centers for Medicare & Medicaid Services (CMS) |
| 1932 | QE CBE-Endorsed: NCQA | Diabetes screening for people with schizophrenia or bipolar disorder who are using antipsychotic | Administrative claims | National Committee for Quality |

| <u>NQF#</u> | <u>Measure Type</u> | <u>Measure Title</u> | <u>Data Source</u> | <u>Measure Steward</u> |
|--------------------|-----------------------------|--|---|---|
| | | medications | | Assurance (NCQA) |
| 1933 | QE CBE-Endorsed: NCQA | Cardiovascular monitoring for people with cardiovascular disease and schizophrenia | Administrative claims | National Committee for Quality Assurance (NCQA) |
| 1959 | QE CBE-Endorsed: NCQA | Human Papillomavirus Vaccine for Female Adolescents | Administrative claims | National Committee for Quality Assurance (NCQA) |
| 2065 | NQF-Endorsed | Gastrointestinal Hemorrhage Mortality Rate (IQI #18) | Administrative claims | Agency for Healthcare Research & Quality (AHRQ) |
| 2111 | NQF-Endorsed | Antipsychotic Use in Persons with Dementia | Administrative claims | Pharmacy Quality Alliance (PQA, Inc.) |
| 2158 | CMS Program Measure | Medicare Spending Per Beneficiary | Administrative Claims | Centers for Medicare & Medicaid Services (CMS) |
| 2337 | NQF-Endorsed - Time-Limited | Antipsychotic Use in Children Under 5 Years Old | Administrative claims | Pharmacy Quality Alliance (PQA, Inc.) |
| 2372 | NQF-Endorsed | Breast Cancer Screening | Administrative claims, Electronic Clinical Data | National Committee for Quality Assurance (NCQA) |
| 2379 | NQF-Endorsed | Adherence to Antiplatelet Therapy after Stent Implantation | Administrative claims | Centers for Medicare & Medicaid Services (CMS) |
| 2431 | NQF-Endorsed | Hospital-level, risk-standardized payment associated with a 30-day episode-of-care for Acute Myocardial Infarction (AMI) | Administrative claims | Centers for Medicare & Medicaid Services (CMS) |
| 2436 | NQF-Endorsed | Hospital-level, risk-standardized payment associated with a 30-day | Administrative claims | Centers for Medicare & |

| <u>NQF#</u> | <u>Measure Type</u> | <u>Measure Title</u> | <u>Data Source</u> | <u>Measure Steward</u> |
|--------------------|----------------------------|---|---------------------------|---|
| | | episode-of-care for heart failure (HF) | | Medicaid Services (CMS) |
| 2558 | NQF-Endorsed | Hospital 30-Day, All-Cause, Risk-Standardized Mortality Rate (RSMR) Following Coronary Artery Bypass Graft (CABG) Surgery | Administrative claims | Centers for Medicare & Medicaid Services (CMS) |
| Not Applicable | CMS Program Measure | Acute Conditions ACSC Composite | Administrative Claims | Agency for Healthcare Research & Quality (AHRQ) |
| Not Applicable | CMS Program Measure | Diabetes ACSC Composite Measure | Administrative Claims | Agency for Healthcare Research & Quality (AHRQ) |
| Not Applicable | CMS Program Measure | ACO 8 (CMS): Risk-Standardized, All Condition Readmission | Administrative Claims | Centers for Medicare & Medicaid Services (CMS) |
| Not Applicable | CMS Program Measure | Air Embolism | Administrative Claims | Centers for Medicare & Medicaid Services (CMS) |
| Not Applicable | CMS Program Measure | Anemia of chronic kidney disease: Dialysis facility standardized transfusion ratio (STRR) | Administrative Claims | Centers for Medicare & Medicaid Services (CMS) |
| Not Applicable | CMS Program Measure | Blood Incompatibility | Administrative Claims | Centers for Medicare & Medicaid Services (CMS) |
| Not Applicable | CMS Program Measure | Catheter-Associated Urinary Tract Infections (UTI) | Administrative Claims | Centers for Medicare & Medicaid Services (CMS) |
| Not Applicable | CMS Program Measure | Condition-specific per capita cost measures for COPD, diabetes, HF, and CAD | Administrative Claims | Centers for Medicare & Medicaid Services (CMS) |

| <u>NQF#</u> | <u>Measure Type</u> | <u>Measure Title</u> | <u>Data Source</u> | <u>Measure Steward</u> |
|--------------------|----------------------------|---|---------------------------|---|
| Not Applicable | CMS Program Measure | Emergency Department Use without Hospitalization | Administrative Claims | Centers for Medicare & Medicaid Services (CMS) |
| Not Applicable | CMS Program Measure | Falls and Trauma: (Includes: Fracture, Dislocation, Intracranial Injury, Crushing Injury, Burn, Electric Shock) | Administrative Claims | Centers for Medicare & Medicaid Services (CMS) |
| Not Applicable | CMS Program Measure | Hemodialysis Adequacy – Urea Reduction Ratio (URR) | Administrative Claims | Centers for Medicare & Medicaid Services (CMS) |
| Not Applicable | CMS Program Measure | Pressure Ulcer Stages III & IV | Administrative Claims | Centers for Medicare & Medicaid Services (CMS) |
| Not Applicable | CMS Program Measure | Total Per Capita Cost Measure | Administrative Claims | Centers for Medicare & Medicaid Services (CMS) |
| Not Applicable | CMS Program Measure | Vascular Catheter-Associated Infections | Administrative Claims | Centers for Medicare & Medicaid Services (CMS) |
| Not Applicable | CMS Program Measure | Access to Primary Care Doctor Visits | Administrative Claims | National Committee for Quality Assurance (NCQA) |
| Not Applicable | CMS Program Measure | Ambulatory Care: Emergency Department Visits | Administrative Claims | National Committee for Quality Assurance (NCQA) |
| Not Applicable | CMS Program Measure | Children and Adolescents' Access to Primary Care Practitioners | Administrative Claims | National Committee for Quality Assurance (NCQA) |
| Not Applicable | CMS Program Measure | Glaucoma Testing | Administrative Claims | National Committee for Quality Assurance (NCQA) |

| <u>NQF#</u> | <u>Measure Type</u> | <u>Measure Title</u> | <u>Data Source</u> | <u>Measure Steward</u> |
|--------------------|----------------------------|--|---------------------------|---|
| | | | | Assurance (NCQA) |
| Not Applicable | QE CBE-Endorsed: NCQA | Adults' Access to Preventive/Ambulatory Health Services | Administrative Claims | National Committee for Quality Assurance (NCQA) |
| Not Applicable | QE CBE-Endorsed: NCQA | Potentially Harmful Drug-Disease Interactions in the Elderly | Administrative Claims | National Committee for Quality Assurance (NCQA) |

Source: Centers for Medicare and Medicaid Services Qualified Entity Program:

<https://www.qemedicaredata.org/SitePages/measures.aspx>