Environmental Scan of Public Reporting Programs and Analysis

Final Report

September 30, 2010

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Policy Research, Inc.

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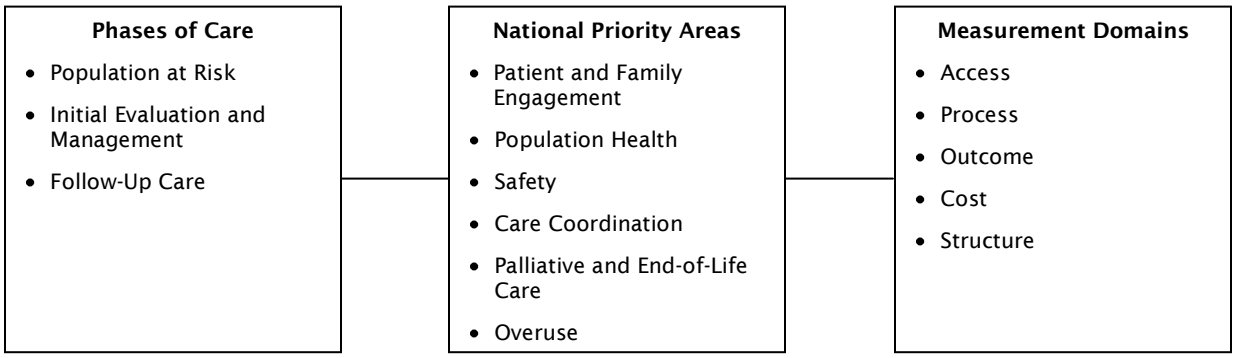
EXECUTIVE SUMMARY

The many different public reporting initiatives that aim to promote quality and efficiency in the health care system speak to a growing momentum in support of transparency in health care and evidence-based improvement. At the same time, the variety of purposes, audiences, and data sources associated with such initiatives can make it difficult to identify opportunities for coordination in pursuit of a national agenda for quality improvement.

To help identify potential areas for coordination in public reporting, the National Quality Forum (NQF) contracted with Mathematica Policy Research to assess the current landscape of public reporting in health care. The assessment also included the examination of public reporting in the context of a conceptual framework for understanding quality, as public reporting within such a framework can help develop a common understanding of quality in health care among stakeholders (Institute of Medicine 2001, 2006). To enhance and broaden understanding of quality in health care, Hibbard and Pawlson (2004) have promoted the development and use of a framework that is consistent with the Institute of Medicine's six aims for the health care system: ensuring that care is safe, timely, effective, efficient, equitable, and patient centered. The NQF has subsequently developed an integrated framework incorporating these six aims and reflecting national priorities; this integrated framework was reviewed and endorsed through its multistakeholder consensus process. The key elements of the framework, adapted to include the measurement domains used in Mathematica's analysis, are depicted in Figure I.

Figure I. Domains of the NQF Integrated Framework



Note: Phases of care are from the NQF patient-focused episode-of-care measurement framework, which includes the following components: population at risk (health promotion, primary and secondary prevention); initial evaluation and management (onset of clinical illnesses and initial assessment); and follow-up care (coordination and transitional phase) (NQF 2009).

National priority areas were put forward by the National Priorities Partnership, which is convened by NQF and represents a diverse range of high-impact stakeholder organizations focused on health care improvement. The priority areas in the figure described in further detail are (1) engage patients and families in managing their health and making decisions about their care; (2) improve the health of the population; (3) improve the safety and reliability of America's health care system; (4) ensure that patients receive well-coordinated care within and across all health care organizations, settings, and levels of care; (5) guarantee appropriate and compassionate care for patients with life-limiting illnesses; and (6) eliminate overuse while ensuring the delivery of appropriate care.

The objectives of the environmental scan and analysis were to provide an overview of current public reporting efforts, to identify opportunities for harmonization among programs and publicly reported measures, and to identify gaps in measurement in the context of the NQF's integrated framework. Such information can contribute to current knowledge about public reporting in health

care and can inform decision making related to public reporting, including the development of a standardized community dashboard of core quality measures. The objectives of the project centered on four research questions:

1. What domains and measures are captured in public reporting activities?

2. How do publicly reported measures map to, and converge with, the NQF integrated framework?

3. How do publicly reported measures diverge from the integrated framework? What are the gaps in reporting?

4. Among the NQF integrated framework areas addressed, what is the convergence (or congruity) between publicly reported measures within specific domains of the integrated framework? What is the divergence between measures within specific domains of the integrated framework?

Methods for Conducting Environmental Scan and Analysis of Public Reporting Programs

From February to September 2010, Mathematica conducted the environmental scan and analysis of public reporting programs, based on a sample of programs identified in collaboration with NQF. Programs in the initial sample included those identified in previous research by Roski and Kim (2009), Cronin and Shearer (2005), and the Ambulatory Care Quality Alliance (2010); and in the Agency for Healthcare Research and Quality's Report Card Compendium. Members of the following initiatives were also included: Aligning Forces for Quality, the Better Quality Information for Medicare Beneficiaries Pilot Project, Charter Value Exchanges, Network for Regional Healthcare Improvement, National Academy for State Health Policy, and the National Association of Health Data Organizations initiatives. Additional programs were identified by six key informants consulted for the study and through a general literature search.

Through this process, we identified 332 programs, of which 162 met project criteria for public reporting. We defined a public reporting program as one that has information publicly available through either web-based or paper documents without any associated fees. However, for this project, we included only programs with information available through the Internet. Proprietary programs were included, provided they made at least some information available to the general public without subscription. In consultation with our six key informants, we narrowed the sample to 72 programs, stratified by geographic area of focus and date of public reporting initiation, to ensure that it was representative of the larger universe of programs identified.

Information on the 72 identified public reporting programs and their quality measures were collected and entered into a Structured Query Language (SQL) database; SQL is a computer language designed for relational database management systems. The database included fields for data entry related to program and measure domains.

- ***Program domains*** included audience; availability of information; contact information; first published report date; frequency of reports; geographic level—national, state, county, community, and other (metropolitan statistical area, health service area, hospital referral region); most recent report date; payer type; program description; program name;

program website; publication mode; report link; report name; sponsor; type of organization; and time of public reporting adoption.

- ***Measure domains*** included condition; data source; measure title, measurement domain; national priority area; NQF endorsement; phase of care; denominator; numerator; target population; and unit of analysis.

After cataloging the sampled program and measure information, we conducted four levels of analyses: (1) descriptive analysis of publicly reported programs and measures to provide an overview of public reporting, (2) mapping of unique measures to the NQF integrated framework to assess the types of measures reported in each domain of a framework for understanding quality, (3) analysis of convergence and divergence in public reporting to the integrated framework to provide greater depth of information about reporting within domains of a framework for understanding quality, and (4) analysis of congruity (convergence) among measures within specific domains of the framework to examine key factors affecting the potential for measure harmonization.

Descriptive Analysis of Programs and Measures

The 72 sampled programs reported a total of 4,254 measures, of which 1,685 represented unique (or unduplicated) measures. The total number of measures reported per program ranged from 1 to 261, with a mean of 59.

Characteristics of Sampled Programs

Although the public reporting programs reviewed exhibited a variety of characteristics, the "typical" program was a state-level initiative begun in the past five years, sponsored by a state agency, and directed at the general public for purposes of accountability or informed consumer choice. Key characteristics of all programs reviewed are summarized next.

- ***Date of initiation.*** More than 70 percent of programs selected for review began public reporting in 2005 or afterward.
- ***Geographic scope.*** Most programs reviewed were state-level reporting programs (64 percent). Programs national in scope were the next most common (15 percent), followed by regional programs (10 percent), county-level reporting programs (7 percent), and community-level programs (4 percent).
- ***Organizational sponsorship.*** State agencies sponsored the largest proportion of programs (33 percent), followed by multistakeholder organizations (24 percent), consumer/advocacy groups (13 percent), employer business groups (10 percent), and the federal government (1 percent). A mix of other organizations (for example, academic institutions, commercial health plans, hospital associations, and provider groups) sponsored the remaining 19 percent of programs.
- ***Target audience.*** Most public reporting programs targeted consumers or the general public (88 percent). Other identified audiences included health care providers/managers (11 percent), purchasers/benefits designers (11 percent), payers (4 percent), and policymakers/regulators (4 percent).
- ***Purpose.*** Most of the selected programs reported quality measures for the purpose of informing consumer choice (92 percent) and public accountability (90 percent). The

selected programs less often reported measures for purposes of quality improvement (33 percent), accreditation/certification (4 percent), or for payment incentive (3 percent).

Characteristics of Quality Measures Used in Public Reporting Programs

The measures used by the sampled public reporting programs reflected several different measurement domains. However, the typical program reported facility-specific, NQF-endorsed, hospital quality measures based on administrative claims data from all payers, for chronic cardiovascular and pulmonary conditions affecting people older than 65. Characteristics of the quality measures used across all reporting programs reviewed are summarized next.

- ***Sources of data.*** Most programs (85 percent) relied on administrative claims as a key data source. Patient surveys (65 percent) were the next most common source, followed by facility surveys (28 percent).
- ***Payer type.*** Seventy-two percent of programs reported measures relevant to populations covered by all payers. Other programs included data from one or more of the following payer types: commercial (19 percent); Medicare (10 percent); and Medicaid (1 percent). Three percent of programs did not specify a payer type.
- ***Unit of analysis.*** Eighty-one percent of programs used facility, such as hospital or nursing home, as the unit of analysis. Group practices were the next most common unit of analysis (38 percent), followed by health plan (28 percent), and individual practice (13 percent).
- ***Setting of care.*** Inpatient hospitals were the most common setting of care for measure reporting (74 percent), followed by clinicians' office (58 percent) and nursing care facility (26 percent). Other settings of care were reported by fewer than 15 percent of programs.
- ***Age groups.*** The largest number of programs (more than 75 percent) reported measures specific to people older than 65. Measures specific to the general adult population were the next most common (69 percent of programs), but slightly more than half of the programs (51 percent) also reported measures specific to children.
- ***Conditions.*** Seventy-eight percent of programs reported measures related to chronic cardiovascular conditions, and 71 percent of programs reported measures related to chronic pulmonary conditions.
- ***Disparities.*** Relatively few of the sampled programs reported measures related to disparities in care, with 6 percent addressing racial/ethnic disparities, 4 percent addressing socioeconomic disparities, and 6 percent addressing some other type of disparity.
- ***NQF endorsement.*** Seventy-eight percent of programs used NQF-endorsed measures.

Mapping and Analysis to Assess Convergence and Divergence with a Framework for Understanding Quality

To assess the extent to which public reporting programs align with a quality framework reflective of national priorities, we mapped measures to the NQF integrated framework and examined convergence with or divergence from it. We used both total (including duplicated)

measures and unique (unduplicated) measures in the analysis. We defined convergence in terms of the number of programs reporting and the number of measures being reported that corresponded to a specific domain. Divergence from the framework or gaps in public reporting are defined as domains in the integrated framework in which few programs are reporting and few measures are being reported. The key domains of the NQF integrated framework assessed for convergence and divergence included the three phases of care, the six national priority areas, and the five measurement domains shown in Figure I.

Our analysis of programs and measures indicates that the degree of convergence varies considerably across domains. Table I provides an overview of the percentage of programs, percentage of duplicated measures, percentage of unique measures, and mean number of measures reported within each domain of the integrated framework. We highlight key findings in the bullets below.

Table I. Domains Captured by Programs and Measures

	Programs	Duplicated Measures	Unique Measures	Mean
Total	72	4,254	1,685	59
		% of Total		# of Measures
Phase of Care				
Population at risk	71	12	8	10
Initial evaluation and management	92	38	40	24
Follow-up care	96	47	46	29
Not classified	78	27	35	20
National Priority Area				
Patient and family engagement	72	11	12	9
Population health	68	13	8	12
Safety	71	16	16	13
Care coordination	83	32	22	23
Palliative and end-of-life care	15	4	7	17
Overuse	60	10	13	10
Measure not classified	74	16	24	13
Measurement Domain				
Access	54	2	3	3
Cost and utilization	82	26	32	19
Structure	47	6	34	7
Process	85	39	26	27
Outcome	90	33	11	22

Notes: Not all categories are mutually exclusive, and programs may have measures in more than one category. Therefore, column percentages may add up to more than 100 percent.

For duplicated measures, several programs may report the same measure, in which case the measure is counted once for each time it is reported. Thus, if two programs report the same measure, the measure is counted twice.

A unique measure is defined as having the same measure description, measurement domain, national priority, and phase of care. Multiple programs may report the same measure, but in our analysis of unique measures, this measure is only counted once.

Mean is calculated among programs that reported measures in the specific category. Programs that did not report any measures in the category were not included in the calculations.

Phases of Care

Initial evaluation and management and follow-up care were the phases of care with the highest level of convergence. More than 90 percent of programs reported measures associated with these two phases, with 38 percent of measures mapping to initial evaluation and management and 47 percent mapping to follow-up care. Among programs that report in these two phases, the average number of measures reported per program was also high; programs reported an average of 24 initial evaluation and management measures and 29 follow-up care measures. Examination of unique measures also reflects this pattern, as 40 and 46 percent of unique measures are initial evaluation and management, and follow-up care, respectively.

The phase of care with the lowest percentage of programs reporting was the population at risk phase. Seventy-one percent of programs reported one or more measures that could be mapped to this area, and 27 percent of duplicated measures and 8 percent of unique measures mapped to this area. The average number of measures among programs reporting in the population at risk phase was also relatively lower compared with that for programs reporting measures in the initial management and evaluation (24 measures) and follow-up care (29 measures) phases; programs reported an average of 10 population at risk measures.

National Priorities

Care coordination was the priority area that had the highest level of convergence. Compared with other priority areas, most programs reported measures in the care coordination area (83 percent); the highest percentage of measures could be mapped to this priority area (32 percent), and the highest average of number measures per program was associated with this area (23 measures per program). Reflecting this pattern, the largest proportion of unique measures mapped to the care coordination priority area (22 percent).

Overuse measures were reported by more than half of reporting programs. Sixty percent of programs reported overuse measures, with a mean of 10 measures per program (out of 59) mapping to this domain. Overuse measures also accounted for 13 percent of all unique measures reported.

A majority of programs reported population health measures, but the number of measures they reported was low. Though 68 percent of programs reported at least one population health measure, only 13 percent of duplicate measures and 8 percent of unique measures mapped to the population health priority area.

Few programs reported palliative and end-of-life care measures. Fifteen percent of programs reported palliative and end-of-life care measures, and 4 percent of unique measures could be mapped to this priority area. Among unique measures, only 7 percent mapped to palliative and end-of-life care measures. However, among programs that reported within this area, the average number of measures reported per program was relatively high (17 measures).

Measurement Domain

Public reporting among sampled programs was highly convergent with measurement domains of outcome, process of care, and cost and utilization. Eighty-five percent of programs reported process of care measures, 90 percent reported outcome measures, and 82 percent reported

cost and utilization measures. The percentage of measures associated with each area was 39 percent for process of care, 33 percent for outcome, and 26 percent for cost and utilization. The average number of measures reported per program in each of these measurement domains was also relatively high, with 27 measures (process), 22 measures (outcome), and 19 measures (cost and utilization) reported. Examination of unique measure also reflects this pattern, where 26 percent are process measures, 34 percent are outcome measures, and 32 percent are cost and utilization measures.[1]

Access and structure measures were the least reported measures. Only 54 and 47 percent of programs reported access and structure measures, respectively. Access measures included those related to timely access to care and services; structure measures included those related to supports for the provision of health care (for example, facility amenities, workforce hours, and availability of health information technology). In addition, only 2 percent of measures could be mapped to the access domain and 6 percent mapped to the structure domain. Among programs reporting access and structure measures, the average number of measures reported per program was three and seven measures, respectively. Although access and structure measures made up a larger percentage of unique measures (3 and 11 percent, respectively), there was still considerably lower reporting within these domains in comparison with other measurement domains.

Convergence and Divergence Within a Specific Domain of a Framework for Understanding Quality

After assessing the extent to which public reporting maps to a quality framework, our next step was to understand the degree to which it is possible to compare quality across reporting programs. To assess comparability, we conducted an analysis of convergence and divergence of measures within a specific domain of the NQF integrated framework. For the study, we selected two areas of measurement—cholesterol management and heart failure quality of care—to illustrate the process for conducting such an analysis. These two areas were selected because they had several measures that fell into specific domains across the integrated framework: follow-up care (phase of care), care coordination (national priority), and clinical processes of care (measurement domain). For these analyses, we used *convergence* to indicate similarities along key characteristics of measures and *divergence* to indicate differences along these characteristics. The measure characteristics along which we compared measures included measure description, numerator, and denominator; purpose of measurement; data source; target population; geographic level of reporting; use of NQF-endorsed measures; unit of analysis; and setting of care.

Eight cholesterol management and six heart failure quality-of-care measures were identified and analyzed. Overall, the eight cholesterol management measures showed a fair amount of alignment in purpose of measurement, data source, geographic level of program, use of NQF-endorsed measures, and unit of analysis. Similarly, the purposes, data sources, NQF endorsement, unit of analysis

[1] Outcome measures were mainly patient safety and outcome measures (55 percent of unique measures), but also included readmission, morbidity, mortality, health-related quality of life, intermediate outcome, functional status measures, and other outcomes. Cost measures included those related to procedure utilization, an episode of care, length of stay, hospital readmission, imaging, per capita costs, emergency department visits, medication prescribing, other service costs, and other cost and resource use. Process measures include those related to clinical care processes, healthy lifestyle behaviors, care coordination, patient and family engagement, prevention services, safety practices, and other processes.

(facility), and setting of care (inpatient) were the same for the six heart failure quality-of-care measures. Within both areas of measurement, however, the numerator and denominator differed in instrumental ways, which would make valid comparisons between the measures within an area difficult.

Implications for Public Reporting in Health Care

Findings from the mapping and analysis of public reporting programs and their measures have several implications for a national quality agenda.

Our analysis suggests that although there is a high degree of convergence between reporting initiatives and several domains of a quality framework reflective of national priorities, relatively less attention has been paid to public reporting of population-based measures (including measures of disparity), public reporting within the overuse and population health national priority areas, and public reporting within the measurement domain of access to care. Given the importance of these issues to the current policy agenda, these might be areas to promote in public reporting. They might also provide opportunities around which to engage consumers and other stakeholders in public dialogue—especially among the state and federal government-sponsored programs that appear to dominate the reporting landscape.

Moreover, as stakeholders have an interest in better coordinating public reporting efforts, our analysis suggests that further effort might be needed to harmonize reporting, through the development of standardized measurement specifications. The sample of programs reviewed for this study showed that the number and types of measures reported vary considerably across programs and among measures within the same topic. Although such variation is expected given differences in resources, purpose, and audience, the ability to make valid comparisons is especially critical to the development of measures that can inform public policy at a national level.

Limitations of the Study

Based on our methods, several caveats should be considered in interpreting findings. First, the sample was selected to represent the diversity of public reporting programs according to key informant input and other study criteria (for example, definition of public reporting program, geographic representation, and period of public reporting initiation). Therefore, the sample might not represent the universe of programs. Second, decisions regarding the categorization of programs and measures were subject to team interpretation of definitions and guidance. However, several procedures were undertaken to ensure internal consistency of the data, including routine and comprehensive quality checks and standard training and procedures for data entry. Finally, information cataloged was limited to information available through the public reporting program's website, and how measures were cataloged was subject to how they were presented on the website.

Conclusion

Our analysis suggests that if current patterns persist there will continue to be considerable variation in measurement and reporting. This variation in practice may well contribute to innovation in this evolving field. However, it also creates challenges to efforts to develop a coordinated national approach to quality and efficiency in health care. Continued assessment of potential areas for development and coordination of efforts will enhance the quality and usefulness of public reporting initiatives.

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I. PROJECT CONTEXT

The National Quality Forum (NQF) has recently expanded its mission of endorsing national consensus standards for quality improvement and public reporting in health care to include setting priorities and goals for the nation through its National Priorities Partnership (NPP). This expansion is in recognition that targeted efforts in high-priority and impact areas can hasten the rate of improvement in the quality of health care and health across the nation. Public reporting in health care of performance measures within these high-priority and impact areas is an important tool in leveraging change by identifying areas in which communities may need to increase efforts and can achieve the greatest impact.

While many public reporting programs are currently underway, they are occurring through many different sponsors (public, private, nonprofit, commercial, proprietary) and for many different purposes, and they are intended for many different audiences. In addition, they use many different types of data sources. The wide variety of public reporting programs has made it difficult to identify opportunities for their coordination in pursuit of a national agenda for quality improvement. In this context, an assessment of current public reporting efforts in health care is needed to identify potential opportunities for coordination to forward a national agenda for quality.

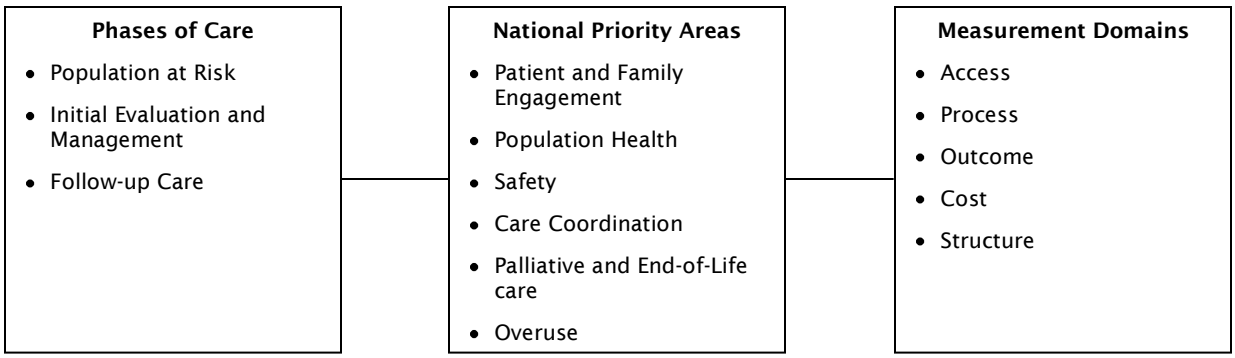
Particularly relevant is an assessment of public reporting conducted within a framework for understanding quality in health care. For example, Hibbard and Pawlson (2004) found that the use of such a framework in public reporting can enhance and broaden consumers' ability to conceptualize health care quality. The assessment of public reporting within such a framework can help ascertain whether current reporting efforts can inform the public about recognized dimensions of quality. Hibbard and Pawlson (2004) have promoted the development and use of a framework that is consistent with the Institute of Medicine's six aims for the healthcare system: ensuring that care is safe, timely, effective, efficient, equitable, and patient centered. The NQF has subsequently developed an "integrated framework" incorporating these six aims and reflecting national priorities; this integrated framework was reviewed and endorsed through its multi-stakeholder consensus process.

Although efforts to survey public reporting programs have been conducted, they have not included in-depth and systematic assessments of the measures reported or focused on alignment with a framework for understanding quality, such as NQF's patient-focused episode-of-care measurement framework. They also have not specifically examined reporting within quality goals and priorities for the nation, such as NPP priorities, or for high-impact conditions, many of which are identified by the Centers for Medicare & Medicaid Services (CMS).[2] In addition, since the recent Roski and Kim study (2009), many of these public reporting efforts—including newer efforts of communities participating in the Aligning Forces for Quality, the charter value exchanges of the Agency for Healthcare Research and Quality (AHRQ), and established programs in the states of California and Minnesota—have progressed.

[2] The 20 high-impact conditions are acute myocardial infarction, Alzheimer's disease and related disorders, atrial fibrillation, breast cancer, cataract, congestive heart failure, chronic kidney disease, colorectal cancer, chronic obstructive pulmonary disease, diabetes, endometrial cancer, glaucoma, hip/pelvic fracture, ischemic heart disease, lung cancer, major depression, osteoporosis, prostate cancer, rheumatoid arthritis and osteoarthritis, and stroke/transient ischemic attack.

An environmental scan of public reporting programs and analysis of the measures can provide NQF with the information necessary to identify publicly reported measures and reporting within the NQF integrated framework as a framework for understanding quality (Figure 1).The NQF framework includes the phases of care from the NQF patient-focused episode-of-care measurement framework and six National Priorities put forward by the National Priorities Partnership. For the project, we also adapted the framework to include five measurement domains.

Figure 1. Domains of the Adapted NQF Integrated Framework Used for the Study



Note: Phases of care are from the NQF patient-focused episode-of-care measurement framework, which includes the following components: population at risk (health promotion, primary and secondary prevention); initial evaluation and management (onset of clinical illnesses and initial assessment); and follow-up care (coordination and transitional phase).

National Priority areas were put forward by the National Priorities Partnership and are described as (1) engage patients and families in managing their health and making decisions about their care; (2) improve the health of the population; (3) improve the safety and reliability of America's health care system; (4) ensure patients receive well-coordinated care within and across all health care organizations, settings, and levels of care; (5) guarantee appropriate and compassionate care for patients with life-limiting illnesses; and (6) eliminate overuse, while ensuring the delivery of appropriate care.

The scan can also be used to identify opportunities for harmonization between publicly reported measures and goals and priorities that current measures are not addressing. NQF and its partners can use such information to support decision making around public reporting, such as developing a standardized community dashboard of core measures. Informing the development of a community dashboard is one of the purposes for conducting this study; the dashboard can be a tool for communities to monitor their progress toward achieving NQF goals and priorities and community health improvement.

A. Project Objectives

To provide NQF with a current assessment of public reporting programs and information to support decision making around public reporting, Mathematica Policy Research conducted the environmental scan and analysis of public reporting programs project between February and September 2010.The purpose of this scan was to catalog performance measures related to health and health care being used in public reporting programs, which could include community programs, health plans, hospitals, or physicians at the local, regional, state, and national levels. We mapped these measures to assess alignment with the NQF integrated framework. The objective of the mapping was also to identify convergence and divergence of measures within specific areas of the framework. Our project objectives are summarized within the following research questions:

1. What domains and measures are captured in public reporting activities?
2. How do publicly reported measures map to, and converge with, the NQF integrated framework?
3. How do public reported measures diverge from the integrated framework? What are the gaps in reporting?
4. Among the NQF integrated framework areas addressed, what is the congruity (or convergence) between publicly reported measures within specific domains of the integrated framework? What is the divergence between measures within specific domains of the integrated framework?

II. METHODS

The environmental scan of public reporting programs and analysis involved surveying, cataloging, and mapping a broad cross-section of public reporting programs at the national, state, and local levels. We identified programs that publicly report health system performance measures and population/public health measures (for example, mortality rates, vaccination rates, uninsured rates). The methods included developing a sample of public reporting programs on which to focus data collection activities, developing a strategy to collect and catalog needed information on their program characteristics and measures they report, and conducting mapping and analysis of measure characteristics.

A. Development of the Sample

The sampling frame was developed through a literature search and discussions with six key informants.[3]These key informants represent those that are active in the field of public reporting and were selected to provide a variety of perspectives in public reporting, including provider, health plan, community organization, and consumer. The final list of key informants were selected in consultation with NQF.

To begin the development of a comprehensive list of programs, we collaborated with NQF to identify sources for the literature search. We compiled programs identified in previous research by Roski and Kim (2009), Cronin and Shearer (2005), and the Ambulatory Care Quality Alliance (AQA)(2010). We also included programs from the following initiatives: Aligning Forces for Quality (AF4Q), the Better Quality Information for Medicare Beneficiaries Pilot Project, Charter Value Exchanges, and the Network for Regional Healthcare Improvement. Members of the National Academy for State Health Policy (NASHP) and the National Association of Health Data Organizations (NAHDO) that engaged in public reporting were also included. Programs in AHRQ's Report Card Compendium were also included. Finally, we added programs identified through a more general literature search, notably those that participate in the National Business Coalition on Health.

The literature search and key informants identified 331 potential programs for inclusion in the sampling frame. To be considered for the final sample, identified programs had to meet the project definition of public reporting—that is, they had to make information publicly available through either web-based or paper documents without any associated fees. For this project, the information had to be available through the Internet to be included in the sample. These programs may include those that are proprietary as long as at least some information is made available without subscription to the general public. They also had to produce some of the measures publicly reported and have a public report as of January 1, 2008; this was to minimize duplication of programs in the sample and ensure that they recently engaged in public reporting.

Of the 331 programs identified, 159 of these programs met project criteria for inclusion and 172 did not. Programs were excluded for the following reasons: 34 programs did not have websites for us to look at and find public reports; 86 programs did not have evidence of public reporting

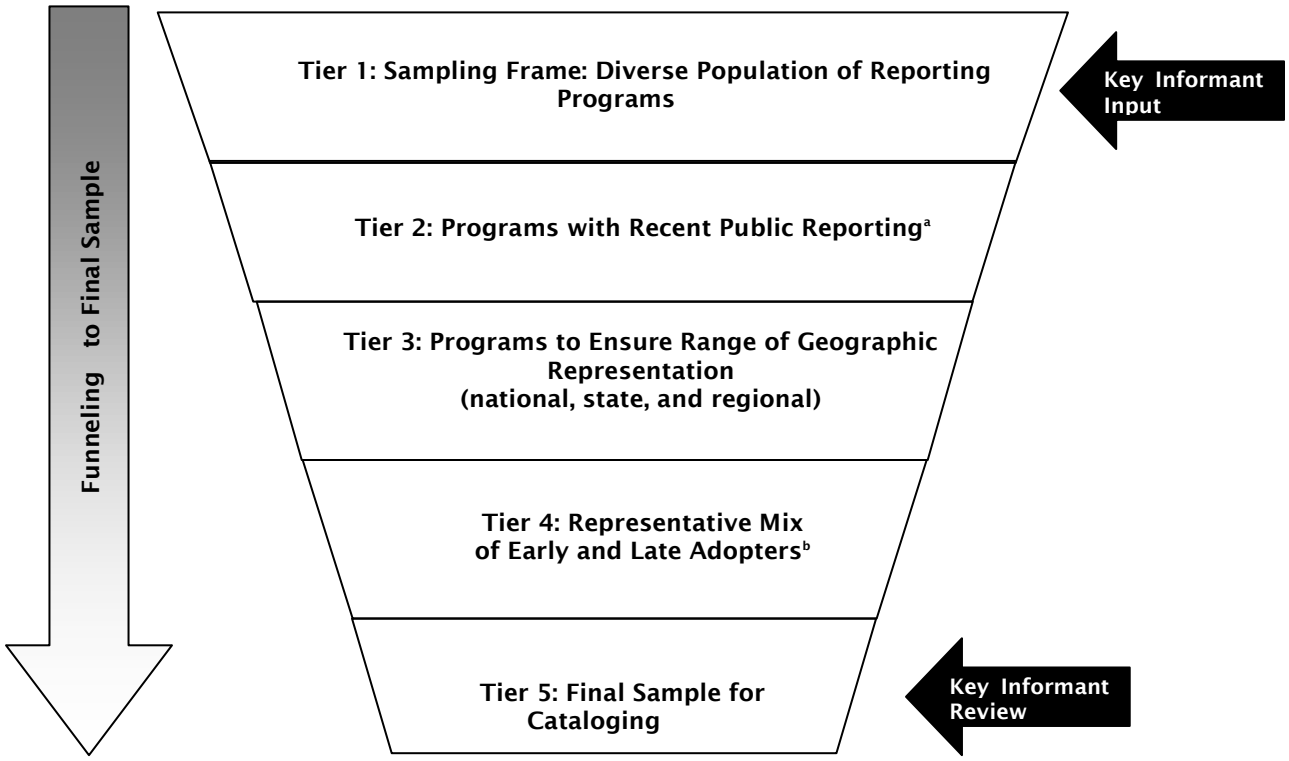
[3] Key informants are not named to protect their confidentiality.

(that is, we could not find public reports from the program as specified by our definition); 13 programs had reports that were available only to subscribers; and 37 programs did not report their own measures, and links to other programs' reports were provided on their website.

A list of the 159 programs that met our criteria was sent to key informants, and a brief discussion was held with them to ask about programs from the list that they recommended for inclusion in the sample. To make recommendations, key informants provided insight as to programs they would include based on their unique expertise (for example, consumer choice in health care and state quality initiatives). They also considered the context current public reporting activities to recommend programs that would be important to include for representativeness. Eighty-five programs were specifically recommended by key informants.

The final sample of 72 programs was selected based on key informant recommendations, representation of different geographic levels (national, state, and regional), and when public reporting was adopted (before or after 2005). Figure 2 shows the approach to sampling.

Figure 2. Sampling Approach



[a]Programs have publicly reported as of January 1, 2008.

[b]Early adopters include those that publicly reported data before 2005. Late adopters issued their first public report in 2005 or later.

To reach the final sample, we relied on the 85 programs with recent public reporting recommended by key informants as a starting point. These programs reflected the geographic distribution of programs in the sampling frame (20 national, 52 state, 5 county, 2 community, and 6 other) and adoption of public reporting (17 early adopters and 68 late adopters). Second, we

included one of two community-level programs that were not recommended by key informants, given the relative paucity of such programs and NQF's interest in understanding reporting at these levels. This brought us to sample size of 86. To reduce the sample to 70-75 programs and stay within the resources of the project, we cross-checked 31 programs that were included in the AQA environmental scan, but not recommended by an individual key informant, and dropped 15 of these programs; the 16 programs retained included 11 programs participating in AF4Q, NAHDO, or NASHP and 5 programs offering a breadth of measures related to consumer ratings and costs and provider performance. This process brought us to 71 programs. Finally, among the programs not recommended by key informants, NQF recommended including4 other programs offering substantial information that may be useful in a community dashboard. This brought us to 75 programs. The final sample was reviewed by key informants. Three programs were later dropped from the analysis, because the volume of measures reported skewed the data, which left the final sample at 72 programs.[4]Appendix A presents a detailed description of the sampling strategy.

B. Data Collection and Categorization

To organize and catalog data collected through the environmental scan, we developed a database in Structured Query Language (SQL), a computer language designed for relational database management, with an easy-to-navigate user interface. Before beginning full-scale data collection, a pilot test was conducted with four programs to assess the appropriateness of the data field definitions and categories, the feasibility of collecting information on public reporting programs, and the time required for data collection. Based on results of the pilot test, revisions to the database were made and a codebook was developed in collaboration with NQF to guide data collection.

The database allowed for information to be cataloged at three levels: program, measure, and program-measure. Program domains in the database pertained to data that described program characteristics, such as organization type. Measure domains were those that were specific to measure characteristics that could not vary between programs, such as national priority area. Program-measure domains allow for variation in measure specifications reported by program. For example, two programs may report the same measure, but report it at different geographic level or for a different target population. Table 1 presents a list of key cataloging domains in the codebook by the three levels. Appendix B provides the codebook for the database that describes each data element and valid values; definitions in the codebook provided the guidance for categorization of programs and measures.

After the database was completed, data were collected between April and early July 2010 for programs in the final sample. Five research assistants were trained to collect data for each element in the database. When codebook definitions required clarification, research staff worked together to clarify definitions and decide on categorizations. At the end of the data process, NQF was also consulted on classification of measures. Appendix C provides a list of decision rules regarding categorization of programs and measures that supplements the codebook definitions. After programs and measures were cataloged and categorized, each entry was

[4] These programs had 700 or more measures, most of which were cost and utilization measures. Had the programs been included, they would have accounted for a third of the measures. The three programs were Florida Health Finder, Nevada Compare Care, and Revolution Health.

reviewed for accuracy and completeness by research staff not involved in data collection, and fields were revised as needed.

Table 1. Domains for Cataloging Programs and Measures

Program Domains	Measure Domains	Program-Measure Domains
Audience	Measure Title	Composite Measure
Availability of Information	Measurement Domain: Access	Measure Denominator
Contact Address	Measurement Domain: Cost	Measure Description
Contact Email	Measurement Domain: Outcome	Measure Numerator
Contact Name	Measurement Domain: Process	NQF Endorsement
Contact Phone	Measurement Domain: Structure	NQF Endorsement Number
Contact Title	National Priorities	Repackaged Measure
Early Adopter	Phase of Care	Data Source
Evidence of Public Reporting		Disparities
First Published Report Date		Geographic Area
Frequency of Reports		Purpose
Geographic Area		Setting of Care
Inclusion in the Final Sample		Target Population
Key Informant Recommended		Unit of Analysis
Most Recent Report Date		Condition(s)
Payer Type Population		
Program Description		
Program Name		
Program Notes		
Program Website		
Publication Mode		
Report Link		
Report Name		
Sample Eligibility		
Sponsor		
Type of Organization		

C. Mapping and Analysis

We designed the mapping and analysis to understand public reporting at progressively deeper levels. Figure 3 depicts the four levels of analysis and research questions answered for each analysis. Each level of analysis is described below.

- The ***first level of analysis*** provided an overview of the landscape of public reporting and information on characteristics of public reporting programs. A subanalysis of the first level further described public reporting programs by assessing their characteristics at various geographic levels (national, state, county, community and other [metropolitan statistical area, health service area, hospital referral region]) and variation between programs at these levels.

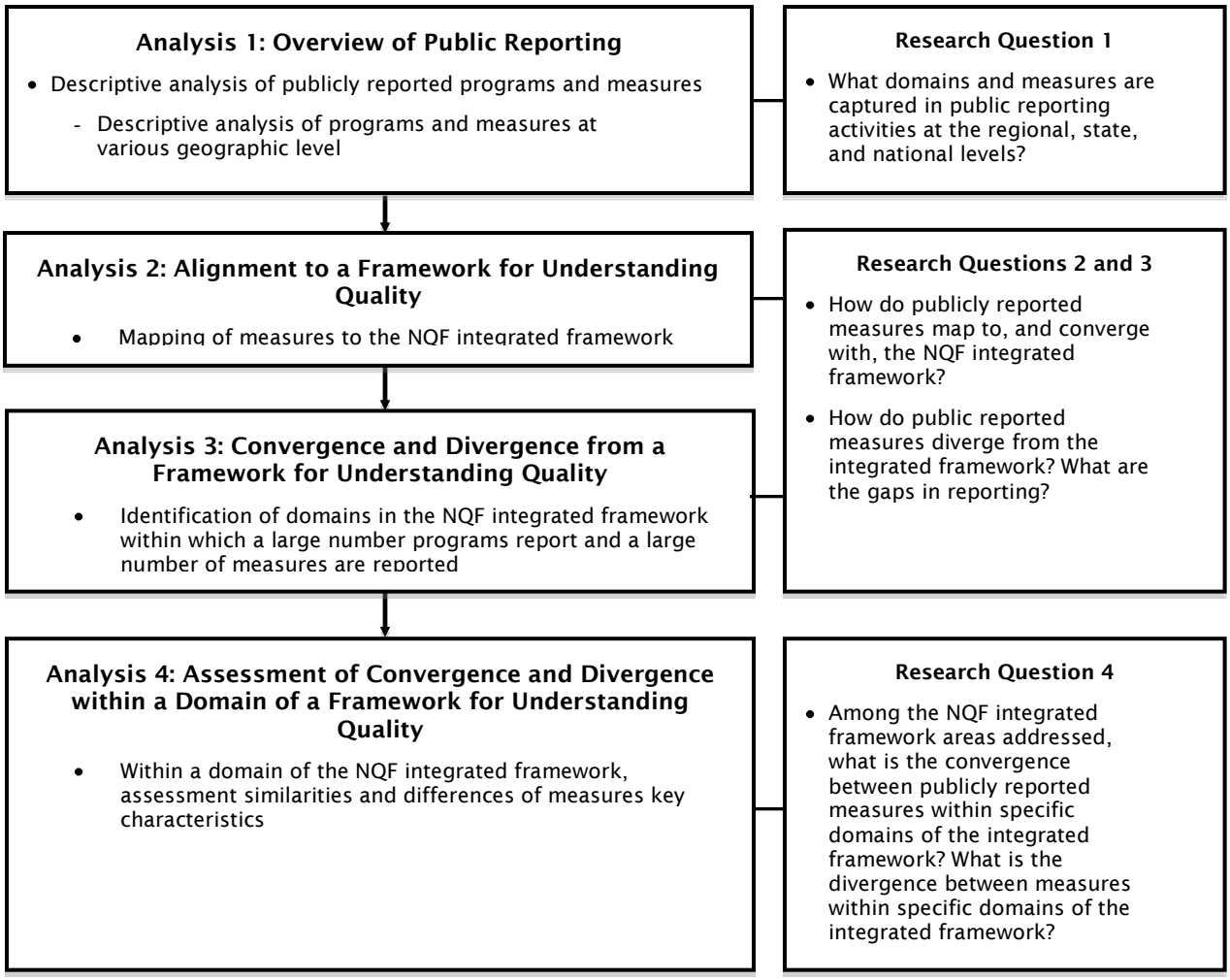
- The ***second level of analysis*** examined the alignment of unique measures with the NQF integrated framework; we used unique measures to understand the types of measures mapping to each domains of the framework. A unique measure is defined as having the same measure description, measurement domain, National Priority, and phase of care. Multiple programs may report the same measure, but in our analysis of unique measures, this measure is only counted once.

- At the ***third level of analysis***, we took the first and second level of analysis further to investigate convergence to, and divergence from, the framework. This analysis included

the examination of patterns in program reporting, duplicated and unique measure mapping, and mean measures reported within each domain of the framework.

- Finally, the last and ***fourth level of analysis*** drilled down to examine the convergence and divergence of measures within the same domains of the integrated framework; this analysis was accomplished through a comparison of measures addressing the same health issue within the same integrated framework domains along key characteristics, including measure description, numerator, denominator; purpose of measurement; data source; target population; geographic level of reporting; use of NQF-endorsed measures; unit of analysis; and setting of care.

Figure 3. Levels of Analysis



In conducting the mapping and analysis, we focused on several key domains. These domains were those related to the integrated framework. They also included conditions, settings of care, NQF endorsement, and data sources. The domains of focus are described briefly below.

- ***Phases of care*** are drawn from the NQF Episodes of Care framework. This patient-centric construct is useful to identify how well the delivery system addresses patient needs over the course of a given episode of care. Three phases of care, as described in the NQF's overarching episode of care model, are used for this project: (1) population at

risk (health promotion, primary and secondary prevention); (2) initial evaluation and management (onset of clinical illnesses and initial assessment); and (3) follow-up care (coordination and transitional phase) (NQF 2009).

- ***National Priorities supported by the NPP*** are a set of priorities and care goals identified by a panel representing 28 leading health care organizations convened by NQF, designed to focus performance improvement efforts on areas with the greatest opportunities for improvement. The six priorities and goals include care focused on (1) patient and family engagement, (2) population health; (3) safety, (4) care coordination, (5) palliative and end-of-life care, and (6) overuse.
- ***Measurement domains*** assess various aspects and purpose for measurement, including access, cost, outcome, process, and structure.
- ***Conditions*** include a standardized taxonomy of 18 health conditions developed by NQF and Mathematica for the project. These conditions included some of the 20 high impact conditions identified by CMS and were aligned with the taxonomy being used in other NQF initiatives to facilitate coordination between NQF initiatives. The conditions were cancer; cardiovascular; child health; diabetes; gastrointestinal; genito-urinary; head, eyes, ears, nose, throat; infectious disease; mental health; musculoskeletal; neurologic; preventive; pulmonary; renal; safety; surgical. A category of "other condition" was included to capture conditions that did not fall into the above taxonomy.
- ***Settings of care*** refer to the place where health care is provided, including ambulance, clinician office, ESRD – dialysis, home health, hospice, hospital/acute care facility (inpatient and outpatient), post-acute/long-term care facility, and other settings.
- ***NQF endorsement*** refers to whether or not a measure is among those endorsed by NQF. NQF endorses measures through its consensus development process.
- ***Disparities*** measures address differences in health and health care by race/ethnicity, socioeconomic status, or other demographic stratification. They capture potential equity issues in treatment or access not fully explained by the differences in health status or preferences of the groups.
- ***Data sources*** provide information on data used for measurement. These data can influence the reliability and accuracy of the measure.

Through programmed queries in the database, tables and figures were generated from the analyses to summarize findings. Summary tables and figures are presented in the results section below and in Appendix D.

III. FINDINGS

During the environmental scan, we found that public reporting programs varied widely in the types of measures presented and presentation of the measures. The types of measures reported included:

- ***Rates.*** For example, rates of mortality, services provided and received, and satisfaction
- ***Volume.*** For example, number of health care professionals, procedures, and hospital beds
- ***Costs.*** For example, cost of procedures and services, cost per capita, cost per patient
- ***Ratings.*** For example, five star or other scales developed based on program criteria for ratings
- ***Composite.*** For example, a measure based on two or more measure combined
- ***Repackaged.*** For example, a measure produced by another program, but modified for the purposes of the program reporting it

Programs reported one or more types of these measures in reports. These reports were provided in PDF and HTML format with figures and tables, or simply through online tables. Some programs provided applications where figures or tables could be created depending on user interest. We compiled a variety of public reporting information within an assortment of formats to develop the findings described in the following sections.

A. Characteristics of Sampled Programs

The 72 programs sampled reported 4,254 measures; 1,685 of these represented unique or unduplicated measures.[5] Programs ranged in the overall number of measures reported from 1 to 261 measures per program; the mean number of measures reported by programs was 59. Most programs started public reporting after 2005. They also spanned all geographic levels, had a variety of audiences for public reporting, and were housed in various types of organizations (Table 2). The number of measures reported by category was consistent with the number of programs by category.

Initiation of Public Reporting. Most programs in the sample started publicly reporting measures in the year 2005 or after (n=51); only 21 of the programs sampled started reporting before 2005.

Geographic Level. The geographic level of programs represented in the sample mirrored the general distribution of programs eligible for inclusion in the study. State programs (n=46) were the most represented, followed by national programs (n=11). County (n=5) and community (n=3) programs accounted for a small portion of programs. Other region programs (n=7), such as those covering a large geographic region of the country or hospital referral region, made up the rest of the sample.

[5] A unique measure is defined as having the same measure description, measurement domain, National Priority, and phase of care.

Table 2. Characteristics of Sampled Programs and Measures

	Programs		Measures	
	N	%	N	%
Total	72	100%	4,254	100%
Initiation of Public Reporting				
Before 2005	21	29%	1,406	33%
2005 and after	52	71%	2,848	67%
Geographic Area				
Community	3	4%	256	6%
County	5	7%	229	5%
State	46	64%	2,579	61%
National	11	15%	623	15%
Other	7	10%	567	13%
Organization Type				
Federal government	1	1%	83	2%
State government	24	33%	1,694	40%
Commercial health plan	5	7%	259	6%
Employer business group	7	10%	231	5%
Specialty society	0	0%	0	0%
Hospital association	3	4%	371	9%
Provider group	1	1%	75	1%
Multistakeholder	17	24%	944	22%
Consumer/advocacy group	9	13%	217	5%
Academic institution	1	1%	112	3%
Other organization	4	6%	299	7%
Audience				
Consumers	63	88%	3,827	90%
Payers	3	4%	53	1%
Policymakers/regulators	3	4%	156	4%
Providers/management	8	11%	356	8%
Purchasers/benefit design managers	8	11%	267	6%
Not specified	1	1%	42	1%
Payer Type Population				
All payer	52	74 %	3,375	79 %
Commercial	13	19 %	551	13 %
Medicare	6	10 %	317	9 %
Medicaid	1	1%	11	<1 %
No payer type	2	3 %	46	1 %

Note: Categories for "audience" and "payer type population" are not necessarily mutually exclusive and, therefore, may add up to more than the total number and 100 percent of programs or measures.

Organization Type. As with programs eligible for the sample, state agencies (n=24) and multistakeholder organizations (n=17) commonly housed public reporting programs. This pattern reflects the large number of programs at the state level. Consumer/advocacy groups (n=9) and employer business groups (n=7) also oversaw several public reporting programs, and the federal government housed one very large public reporting program in the sample.

Audience. Consumers were the target audiences for a large majority of public reporting programs (n = 63). A smaller number also identified providers/managers (n = 8) and purchasers/benefit designers (n = 8), payers (n = 3), and policymakers/regulators (n = 3) as the audience. One program did not specify who the audience was.

Payer Type Populations. Nearly three-quarters of programs covered populations relevant to all-payer types (n = 52). Thirteen and 6 programs were specific to commercial and Medicare populations, respectively. Only one program addressed Medicaid populations, and 2 programs did not specify a payer type population.

B. Domains Captured in Public Reporting Activities

The mapping of programs to key domains showed that a wide variety of domains and measures were captured in public reporting (Table 3). However, programs reported within some domains more than others. Overall, the typical program reported measures that provided accountability to the public and aided in consumer choice, and that were relevant to populations covered by all payers. It also commonly reported measures within the following domains of the NQF integrated framework: initial evaluation and management, and follow-up phases of care; process and outcomes domains; and care coordination priority area. Conditions the typical program addressed included cardiovascular and pulmonary conditions. It reported measures that targeted adult or aged populations 65 and over, but did not report measures that directly addressed disparities. When reviewing measure characteristics, the unit of analysis was frequently at the facility level, reflecting clinician and inpatient hospital as the most common settings of care for measure reporting. In addition, most programs used NQF-endorsed measures and relied on administrative claims as the data source. Next, we describe findings within each key domain and area in greater detail.[6]

Purposes of Reporting. Programs reported measures that: provided accountability for public reporting and aided consumer choice. Almost all the measures reported were for the purposes of accountability for public reporting (91 percent) and to aid in consumer choice (90 percent). Less frequently, measures were reported that informed efforts for quality improvement (4 percent), were requirements for accreditation or certification (1 percent), and were part of payment incentives (<1 percent).

Phase of Care. More than 97 percent of programs reported measures that could be mapped to at least one phase of care, and two-thirds (48 programs) of programs reported measures in all phases of care (data not shown). Most programs reported measures in the initial evaluation and management (92 percent) and follow-up phases of care (96 percent); the mean number of measures

[6] In discussing measures in this section, we are interested in the distribution of overall measures publicly reported across each domain and area. Therefore, the number of measures represents all measures reported, not only the unique measures.

related to these phases of care was also the highest (24 and 29 average measures per program). Two-thirds of programs reported measures in the population at risk phase with a mean of 10 measures.

National Priority Area. There was variation in level of coverage of National Priorities by programs. Just under 96 percent of programs reported measures in any National Priority area, and only about 3 percent (two programs) reported measures in all National Priority areas (data not shown). Care coordination is the priority most commonly addressed at the program level, with 83 percent of all programs reporting measures addressing this goal. Programs also reported the highest mean number of measures in this priority area (23 measures). End-of-life care is least likely to be addressed, with only 15 percent of programs reporting any measure addressing this goal. However, programs that reported end-of-life care measures reported an average of 17 measures; the average measures reported in this area is higher than that for all other priority areas except for care coordination. The majority of programs, more than 60 percent, had measures in the four other priority areas: patient and family engagement (72 percent), safety (71 percent), population health (68 percent), and overuse (60 percent).

Measurement Domain. All programs reported measures mapping to a measurement domain, and roughly 30 percent (21 programs) reported measures in all measurement domains (data not shown). The majority of programs reported measures in the process (85 percent) and outcome (90 percent) domains of measurement; the mean number of measures per program was also highest for these two domains: 22 and 29 measures, respectively. Eighty-two percent of programs reported cost and utilization measures, with a mean of 19 measures per program. Fewer programs, approximately half, reported measures in the access and structure domains; the mean number of measures per program was three and seven measures, respectively.

Condition. Programs address a wide range of conditions. Almost all conditions are addressed by at least 100 measures. The most common conditions reported included cardiovascular (78 percent), pulmonary (71 percent), preventive (69 percent), and surgical (64 percent). These measures also had higher mean measures reported (12, 8, 11, and 15 mean measures, respectively). Gastrointestional (25 percent); head, eyes, ears, nose and throat; infectious (22 percent); and renal (22 percent) conditions are the conditions least frequently reported by programs; among programs that reported these measures, they also had the low mean measures (3, 2, and 2 measures, respectively).

Age Group. More than 80 percent of programs reported measures that specified the age of the target populations (data not shown). Programs reported measures specific to child (51 percent), adult (69 percent), and aged (75 percent) populations. However, 96 percent of programs also reported a measure that did not specify an age for the target population.

Disparities. Less than a fifth of programs reported measures that specifically addressed disparities, and less than five percent of measures were related to disparities. However, among programs that reported disparities related measures, the mean number of measures related to racial/ethnic and other disparities was relatively high per program, with 20 and 28 measures, respectively.

Table 3. Domains Captured by Programs and Measures

	Programs		Measures[a]			
	N	%	N	%	Mean[b]	Range[b]
Total	72	100 %	4,254	100 %	59	1-261
Purpose for Reporting						
Accountability: Accreditation/certification	3	4 %	92	2 %	31	1-80
Accountability: Payment incentive	2	3 %	13	<1 %	7	1-12
Accountability: Public reporting	67	93 %	3,855	91 %	58	1-256
Consumer choice	66	92 %	3,846	90 %	58	3-201
Quality improvement	24	33 %	156	4 %	7	1-88
Other	6	11%	302	10 %	52	1-140
Phase of Care						
Population at risk	51	71 %	494	12 %	10	1-43
Initial Evaluation and Management	66	92 %	1,614	38 %	24	1-119
Follow-up care	69	96 %	1,990	47 %	29	1-120
Not classified	56	78 %	1,134	27 %	20	1-85
National Priority Area						
Patient and Family Engagement	52	72 %	456	11 %	9	1-76
Population Health	49	68 %	569	13 %	12	1-51
Safety	51	71 %	660	16 %	13	1-90
Care Coordination	60	83 %	1,361	32 %	23	1-115
Palliative and End-of-Life care	11	15 %	185	4 %	17	1-55
Overuse	43	60 %	417	10 %	10	1-57
Measure not classified	53	74 %	687	16 %	13	1-69
Measurement domain						
Access	39	54 %	39	2 %	3	1-23
Cost and Utilization	59	82 %	59	26 %	19	1-118
Structure	34	47 %	34	6 %	7	1-51
Process	61	85 %	61	39 %	27	2-109
Outcome	65	90 %	65	33 %	22	1-128
Conditions						
Cancer	32	44 %	109	3 %	3	1-13
Cardiovascular	56	78 %	654	15 %	12	1-40
Child health	33	46 %	164	4 %	5	1-32
Diabetes	40	56 %	270	6 %	7	1-33
Gastrointestinal	18	25 %	55	1 %	3	1-12
Genito-urinary	38	53 %	154	4 %	4	1-22
Head, eyes, ears, nose, throat	16	22 %	31	1 %	2	1-5
Infectious disease	18	25 %	31	1 %	2	1-4
Mental health	29	40 %	124	3 %	4	1-14
Musculoskeletal	39	54 %	160	4 %	4	1-19
Neurologic	29	40 %	76	2 %	3	1-12
Preventive	50	69 %	572	13 %	11	1-45
Pulmonary	51	71 %	405	10 %	8	1-34
Renal	16	22 %	39	1 %	2	1-8
Safety	27	38 %	204	5 %	8	1-38
Surgical	46	64 %	710	17 %	15	1-84
Other Condition	23	32 %	105	2 %	5	1-17
Not Applicable	63	88 %	1,092	26 %	17	1-131
Age Group						
Child/adolescent	37	51 %	342	8 %	9	1-44
Adult	50	69 %	856	20 %	17	1-106
Advanced aged	54	75 %	1,103	26 %	20	1-110
Unspecified	69	96 %	2,705	64 %	39	1-162
Disparities						
Race/Ethnic	4	6 %	61	1 %	15	1-46
Socioeconomic	3	4 %	7	<1 %	2	1-5
Other	4	6 %	110	3 %	28	1-41

	Programs		Measures[a]			
	N	%	N	%	Mean[b]	Range[b]
Total	72	100 %	4,254	100 %	59	1-261
Unit of Analysis						
Clinician: Group practice	27	38 %	451	9%	17	1-88
Clinician: Individual practice	9	13 %	84	2 %	9	3-30
Facility	58	81 %	3,074	60 %	53	2-237
Health plan	20	28 %	706	14%	35	1-125
Setting of Care						
Clinician office	42	58 %	1,056	25%	25	1-91
ESRD	3	4 %	6	<1 %	2	1-3
Home health	8	11 %	71	1 %	9	1-40
Hospice	3	4 %	55	1 %	18	1-52
Hospital (inpatient)	53	74 %	2,534	60 %	48	1-235
Hospital (outpatient)	10	14 %	112	3 %	11	1-35
Hospital (outpatient ED)	6	8 %	15	<1 %	3	1-5
Hospital (outpatient imaging)	4	6 %	37	1 %	9	1-20
Hospital (outpatient laboratory)	1	1 %	1	<1 %	1	N.A.
Hospital (outpatient pharmacy)	2	3 %	2	<1 %	1	1-1
Hospital (outpatient surgery)	7	10 %	36	1 %	5	1-22
Hospital (outpatient other)	1	1 %	1	<1 %	1	N.A.
PAC/SNF/NF	19	26 %	397	9 %	21	1-150
PAC/Rehabilitation	4	6 %	19	<1 %	5	2-7
PAC/Other	1	1 %	5	<1 %	5	N.A.
Other setting	8	11 %	63	1 %	8	2-19
NQF Endorsement						
NQF	56	78 %	1,241	29 %	22	1-94
Program defined/not endorsed	72	100 %	3,013	71 %	42	1-167
Data Source						
Administrative-claims	61	85 %	2,973	70 %	49	1-212
Clinically enriched administrative (lab)	2	3 %	6	<1 %	3	2-4
Clinically enriched administrative (pharmacy)	1	1 %	8	<1 %	8	N.A.
Medical records (electronic)	9	13 %	166	4 %	18	2-59
Medical records (paper)	2	3 %	9	<1 %	5	1-8
Public vital statistics	3	4 %	15	<1 %	5	1-8
Registry	7	10 %	59	1 %	8	1-28
Survey (clinician)	8	11 %	83	2 %	9	1-30
Survey (facility)	27	38 %	378	9 %	14	1-55
Survey (patient)	47	65 %	518	12 %	11	1-66
Other data source	20	28 %	193	5 %	10	1-50

Note: Not all categories are mutually exclusive and programs may have measures in more than one category. Therefore, column percentages may add up to more than 100 percent.

Hospital categories include acute care facilities.

ED = emergency department

N.A. = not applicable; because there is only one program in the category, range is not applicable.

To simplify the table, the following categories were deleted because no programs reported them: setting of care—ambulance; unit of analysis—integrated delivery system; payer type—other; data source—medical records (hybrid); data source—personal health record.

[a] Represents the total number of measures, not the number of unique measures reported. A unique measure is defined as having the same measure description, measurement domain, National Priority, and phase of care.

[b] Mean, range, and standard deviation are calculated among programs that reported measures in the specific category. Programs that did not report any measures in the category were not included in the calculations.

Unit of Analysis. Programs commonly reported measures at the facility unit of analysis (81 percent); less than an eighth of programs reported measures at the individual practice level. Approximately a third also reported measures at the group practice and health plan level, and none reported any measures at the integrated delivery system level for unit of analysis. The mean number of measures reported also followed the same trend, with the highest mean number of measures per program reported for facility unit of analysis (54 measures) and the lowest mean for individual group practice unit of analysis (9 measures).

Setting of Care. While programs reported measures that addressed a wider variety of settings of care, the majority of programs reported measures within the clinician office (58 percent) and hospital inpatient setting of care (74 percent). The mean number of measures reported within these settings was also the highest, with 26 mean measures for the clinician office setting and 48 mean measures for the hospital inpatient setting.

NQF Endorsement. More than three-quarters of programs reported NQF-endorsed measures. However, the overall proportion of these measures comprised less than 30 percent of all measures.

Data Source. Most programs relied on administrative data to develop their measures (85 percent), with a majority also relying on patient surveys (65 percent) as data sources. None of the programs in the sample used personal health records or a hybrid of electronic and paper medical records as data sources.

1. Domains Captured by Programs at Different Geographic Levels

To further understand the landscape of public reporting, we reviewed programs by their geographic level: national, state, county, community, and other region (MSA, HSA, HRR). Figure 3 shows the number of measures captured by programs at each geographic level. The mean number of measures reported by programs was highest for national programs (87 measures), followed by community (85 measures), state (56 measures), country (46 measures), and other geographic level (32measures) (Table 4). In comparison, the mean number of measures for the overall sample was 59 (Table 3).

Next, we examine public reporting at various geographic levels in two ways, using summary information from Table 4. First, we present public reporting by geographic level and provide a brief profile of public reporting within each geographic level. Second, we compare patterns of public reporting for the overall sample to that at each geographic level; findings are presented by key areas and domains of public reporting.

a. Profile of Public Reporting at Various Geographic Levels

Though programs had similarities in patterns of public reporting across geographic levels, there were slight variations in characteristics of programs at each geographic level. Here, we discuss the characteristics of public reporting programs and measures within each geographic level.

National Programs. Eleven national-level programs reported 623 measures, with a heavy representation of process and outcome measures. More than three-quarters of national programs reported measures related to cardiovascular and pulmonary conditions. Compared to programs at other geographic levels, national programs were more likely to report measures that address end-of-life care. National programs were also more likely to be oriented toward reporting measures at the

facility level, and less likely to report at the health plan level. More than a quarter of the measures reported by national programs were NQF endorsed. Similar to programs at other geographic levels, the conditions focused on in measurement included cardiovascular, pulmonary, and surgical.

State Programs. Forty-six state-level programs reported 2,579 measures and represented the majority of the sample, accounting for 64 percent of all measures and 61 percent of all programs, reflecting the geographic distribution in the sampling frame. Most state programs reported on outcomes, process, cost and utilization measurement domains, and care coordination was the most commonly reported National Priority. About two-thirds of state programs publicly reported cardiovascular, preventive, pulmonary, and surgical care measures. State programs showed the most diversity of data sources, with most programs relying upon administrative data (89 percent). State programs also used vital statistics (6 percent), paper medical records (4 percent), and laboratory or pharmacy data (2 percent).

County Programs. Five county-level programs reported a total of 229 measures. Similar to community level, programs reporting at the county level focused on process, outcome, cost and utilization measures; these measures are mainly for accountability and to support consumer choice. Care coordination was the most commonly addressed National Priority, while the end-of-life care priority was not addressed by any program. Most county programs reported on measures related to cardiovascular, diabetes, preventative, pulmonary, and surgical care. Few measures reported address disparities in care.

Figure 4. Number of Measures by Program and Geographic Level

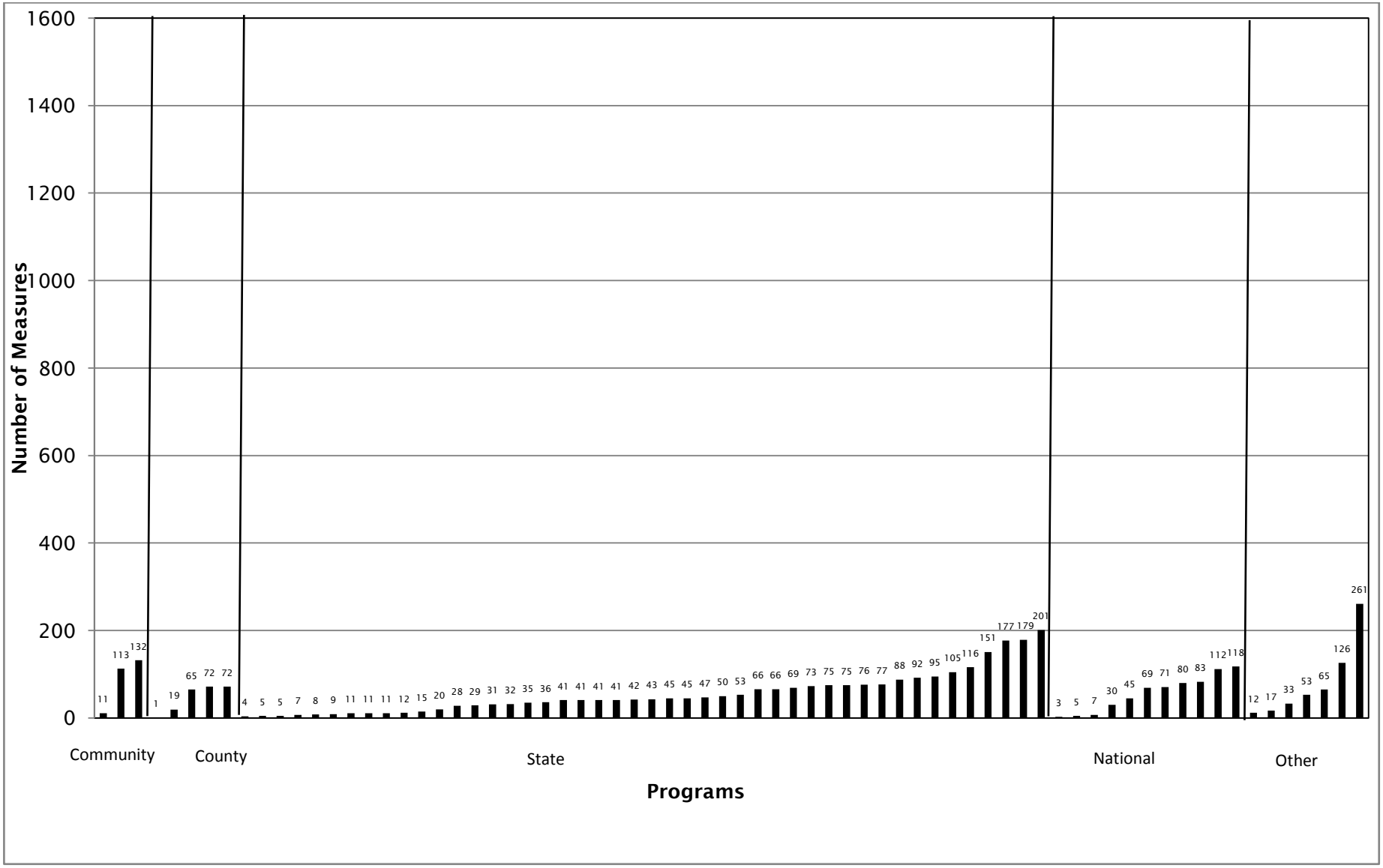


Table 4. Domains Captured by Programs and Measures at Different Geographic Levels

	National			State			County			Community			Other		
	Programs	Measures[a]	Mean[b]	Programs	Measures[a]	Mean[b]	Programs	Measures[a]	Mean[b]	Programs	Measures[a]	Mean[b]	Programs	Measures[a]	Mean[b]
Total	11	623	57	46	2579	56	5	229	46	3	256	85	7	567	81
	% OF TOTAL			% OF TOTAL			% OF TOTAL			% OF TOTAL			% OF TOTAL		
Purpose for Reporting															
Accountability: Accreditation/certification	9%	13%	80	2%	<1%	11	20%	<1%	1	0%	0%	0	0%	0%	0
Accountability: Payment incentive	9%	<1%	1	2%	<1%	12	0%	0%	0	0%	0%	0	0%	0%	0
Accountability: Public reporting	100%	73%	41	89%	92%	58	100%	95%	45	100%	94%	80	100%	99%	80
Consumer choice	100%	83%	47	91%	91%	57	80%	97%	69	100%	100%	85	86%	78%	74
Quality improvement	18%	1%	2	30%	5%	10	60%	3%	3	67%	1%	2	43%	1%	2
Other	18%	23%	71	11%	10%	54	0%	0%	0	0%	0%	0	14%	<1%	1
Phase of Care															
Population at risk	64%	8%	7	70%	14%	11	80%	14%	8	67%	4%	6	86%	9%	9
Initial Evaluation and Management	100%	39%	22	96%	40%	23	60%	44%	33	100%	25%	21	71%	32%	36
Follow-up care	100%	47%	27	96%	48%	28	80%	54%	31	100%	30%	26	100%	44%	35
Not classified	73%	32%	25	80%	23%	16	80%	10%	6	67%	56%	72	71%	30%	34
National Priority Area															
Patient and Family Engagement	91%	10%	6	67%	11%	9	60%	15%	11	100%	11%	9	71%	8%	9
Population Health	64%	8%	7	65%	15%	13	80%	18%	11	67%	6%	8	86%	12%	11
Safety	73%	24%	19	72%	15%	11	80%	7%	4	67%	3%	4	57%	19%	27
Care Coordination	82%	28%	19	83%	31%	21	80%	49%	28	100%	27%	23	86%	38%	36
Palliative and End-of-Life care	36%	7%	12	15%	5%	20	0%	0%	0	0%	0%	0	0%	0%	0%
Overuse	27%	6%	12	70%	13%	10	40%	10%	12	33%	1%	2	71%	6%	6
Measure not classified	82%	19%	13	74%	13%	10	60%	2%	1	100%	54%	46	57%	18%	26
Measurement domain															
Access	73%	5%	4	46%	2%	2	60%	3%	2	67%	1%	2	71%	1%	2
Cost and Utilization	64%	16%	14	85%	26%	17	100%	18%	8	67%	59%	76	86%	28%	27
Structure	73%	11%	8	46%	6%	7	60%	9%	7	0%	0%	0	29%	2%	6
Process	91%	34%	24	80%	39%	27	80%	60%	34	100%	30%	25	100%	41%	34
Outcome	91%	39%	24	91%	34%	21	80%	23%	13	100%	18%	15	86%	36%	34
Conditions															
Cancer	27%	1%	2	43%	3%	3	60%	4%	3	67%	2%	2	57%	4%	5
Cardiovascular	82%	16%	10	76%	14%	10	80%	25%	15	100%	19%	16	71%	17%	20
Child health	36%	2%	3	50%	4%	4	60%	4%	3	33%	1%	3	29%	7%	19
Diabetes	36%	4%	3	52%	6%	6	80%	10%	6	67%	4%	6	86%	11%	11
Gastrointestinal	27%	3%	6	22%	1%	2	20%	<1%	1	67%	3%	4	29%	1%	3
Genito-urinary	55%	5%	5	61%	4%	4	0%	0%	0	67%	2%	3	29%	2%	6
Head, eyes, ears, nose, throat	18%	1%	4	26%	1%	2	20%	1%	2	33%	<1%	1	0%	0%	0
Infectious disease	18%	<1%	1	28%	1%	2	20%	<1%	1	0%	0%	0	29%	1%	2
Mental health	27%	3%	5	48%	4%	5	40%	2%	3	33%	1%	2	14%	<1%	1
Musculoskeletal	45%	4%	4	59%	3%	3	40%	1%	2	67%	14%	19	43%	4%	7

	National			State			County			Community			Other		
	Programs	Measures[a]	Mean[b]	Programs	Measures[a]	Mean[b]	Programs	Measures[a]	Mean[b]	Programs	Measures[a]	Mean[b]	Programs	Measures[a]	Mean[b]
Total	11	623	57	46	2579	56	5	229	46	3	256	85	7	567	81
	% OF TOTAL			% OF TOTAL			% OF TOTAL			% OF TOTAL			% OF TOTAL		
Conditions (cont.)															
Neurologic	45%	2%	2	46%	2%	3	20%	<1%	1	0%	0%	0	29%	2%	7
Preventive	64%	9%	7	65%	15%	13	80%	24%	14	67%	6%	8	100%	14%	11
Pulmonary	73%	11%	8	70%	8%	7	80%	14%	8	100%	13%	11	57%	12%	17
Renal	45%	3%	3	22%	1%	2	0%	0%	0	0%	0%	0	14%	<1%	1
Safety	27%	4%	7	48%	6%	6	0%	0%	0	0%	0%	0	29%	7%	20
Surgical	64%	19%	14	63%	13%	11	60%	13%	10	100%	39%	34	57%	26%	38
Other Condition	45%	7%	7	35%	3%	4	20%	<1%	1	0%	0%	0	14%	<1%	2
Not Applicable	100%	37%	18	89%	29%	18	80%	24%	14	100%	12%	10	57%	10%	14
Age Group															
Child/adolescent	27%	3%	6	57%	10%	10	60%	7%	5	33%	2%	4	57%	9%	13
Adult	45%	11%	14	74%	21%	16	60%	21%	16	100%	8%	7	71%	29%	33
Advanced age	55%	30%	31	80%	24%	16	60%	23%	17	100%	32%	27	71%	31%	35
Unspecified	100%	66%	37	93%	64%	38	100%	66%	30	100%	65%	55	100%	59%	48
Disparities															
Race/Ethnic	9%	7%	46	4%	1%	7	20%	<1%	1	0%	0%	0	0%	0%	0
Socioeconomic	0%	0%	0	4%	<1%	3	20%	<1%	1	0%	0%	0	0%	0%	0
Other	9%	6%	40	4%	3%	35	0%	0%	0	0%	0%	0	20%	<1%	1
Unit of Analysis															
Clinician: Group practice	27%	1%	1	37%	14%	21	60%	20%	15	0%	0%	0	57%	9%	13
Clinician: Individual practice	27%	6%	12	11%	2%	8	0%	0%	0	33%	2%	6	0%	0%	0
Facility	73%	83%	65	78%	63%	46	80%	76%	44	100%	98%	83	100%	87%	71
Health plan	18%	9%	29	26%	23%	49	60%	10%	8	0%	0%	0	43%	7%	14
Setting of Care															
Clinician office	45%	15%	19	52%	30%	33	80%	33%	19	67%	10%	13	100%	14%	11
ESRD	18%	1%	3	2%	<1%	1	0%	0%	0	0%	0%	0	0%	0%	0
Home health	18%	2%	6	13%	2%	10	0%	0%	0	0%	0%	0	0%	0%	0
Hospice	9%	<1%	2	4%	2%	27	0%	0%	0	0%	0%	0	0%	0%	0
Hospital (inpatient)	73%	75%	58	70%	48%	39	60%	62%	47	100%	90%	77	100%	79%	64
Hospital (outpatient)	0%	0%	0	17%	3%	11	20%	9%	21	0%	0%	0	14%	1%	4
Hospital (outpatient ED)	0%	0%	0	11%	<1%	2	0%	0%	0	0%	0%	0	14%	1%	3
Hospital (outpatient imaging)	0%	0%	0	7%	1%	12	20%	<1%	1	0%	0%	0	0%	0%	0
Hospital (outpatient laboratory)	0%	0%	0	0%	0%	0	20%	<1%	1	0%	0%	0	0%	0%	0
Hospital (outpatient pharmacy)	0%	0%	0	0%	0%	0	20%	<1%	1	0%	0%	0	14%	<1%	1
Hospital (outpatient surgery)	0%	0%	0	11%	1%	7	0%	0%	0	0%	0%	0	29%	1%	2
Hospital (outpatient other)	0%	0%	0	2%	<1%	1	0%	0%	0	0%	0%	0	0%	0%	0
PAC/SNF/NF	64%	7%	7	26%	14%	29	0%	0%	0	0%	0%	0	0%	0%	0
PAC/Rehabilitation	0%	0%	0	9%	1%	5	0%	0%	0	0%	0%	0	0%	0%	0
PAC/Other	0%	0%	0	2%	<1%	5	0%	0%	0	0%	0%	0	0%	0%	0
Other setting	0%	0%	0	11%	1%	6	20%	2%	5	0%	0%	0	29%	5%	14

	National			State			County			Community			Other		
	Programs	Measures[a]	Mean[b]	Programs	Measures[a]	Mean[b]	Programs	Measures[a]	Mean[b]	Programs	Measures[a]	Mean[b]	Programs	Measures[a]	Mean[b]
Total	11	623	57	46	2579	56	5	229	46	3	256	85	7	567	81
	% OF TOTAL			% OF TOTAL			% OF TOTAL			% OF TOTAL			% OF TOTAL		
NQF Endorsement															
NQF	64%	27%	24	80%	26%	18	80%	48%	27	100%	27%	23	71%	38%	43
Program defined/not endorsed	100%	73%	41	100%	74%	41	100%	52%	24	100%	73%	62	100%	62%	50
Data Source															
Administrative-claims	73%	66%	52	89%	68%	43	60%	59%	45	100%	88%	75	86%	79%	75
Clinically enriched administrative (lab)	0%	0%	0	2%	<1%	2	0%	0%	0	0%	0%	0	14%	1%	4
Clinically enriched administrative (pharmacy)	0%	0%	0	2%	<1%	8	0%	0%	0	0%	0%	0	0%	0%	0
Medical records (electronic)	0%	0%	0	15%	5%	20	0%	0%	0	0%	0%	0	29%	1%	3
Medical records (paper)	0%	0%	0	4%	<1%	5	0%	0%	0	0%	0%	0	0%	0%	0
Public vital statistics	0%	0%	0	7%	1%	5	0%	0%	0	0%	0%	0	0%	0%	0
Registry	9%	<1%	2	11%	2%	9	0%	0%	0	0%	0%	0	14%	2%	12
Survey (clinician)	18%	6%	18	11%	1%	6	20%	8%	18	0%	0%	0	0%	0%	0
Survey (facility)	45%	15%	18	39%	10%	15	40%	7%	9	0%	0%	0	29%	1%	3
Survey (patient)	64%	11%	10	61%	13%	12	80%	14%	8	100%	12%	10	71%	8%	9
Other data source	36%	1%	1	22%	5%	5	80%	12%	7	0%	0%	0	29%	4%	10

Note: Not all categories are mutually exclusive and programs may have measures in more than one category. Therefore, column percentages may add up to more than 100 percent.

Hospital categories include acute care facilities.

ED = emergency department

N.A. = not applicable; because there is only one program in the category, range and standard deviation are not applicable.

To simplify the table, the following categories were deleted because no programs reported them: setting of care—ambulance; unit of analysis—integrated delivery system; payer type—other; data source—medical records (hybrid); data source—personal health record.

Appendix D, Table D.1 provides number, mean, percent, and range.

[a] Represents the total number of measures, not the number of unique measures reported. A unique measure is defined as having the same measure description, measurement domain, National Priority, and phase of care.

[b] Mean, range, and standard deviation are calculated among programs that reported measures in the specific category. Programs that did not report any measures in the category were not included in the calculations.

Community Programs. Three community-level programs reported a total of 256 measures and reported a large proportion of process, outcome, cost and utilization measures in individual practice and hospital settings; they did not report any structure measures. In addition, all community-level programs address the care coordination and patient and family engagement National Priorities; and rely upon NQF-endorsed measures. These programs focus heavily on cardiovascular, pulmonary, and surgical conditions. Community-level programs did not address end-of-life care, nor did they address disparities in care in their publicly reported measures.

Other Regions (MSA, HSA, HRR). Seven programs focused on metropolitan statistical and hospital service areas and accounted for 567 of all measures. All programs reporting at these geographic levels had measures that addressed follow-up phase of care, process domain, and preventive care. Compared to other programs at other geographic levels, these programs were more likely to focus on population health as a National Priority area and use laboratory and EMR as data sources. Most of these programs used facility as the unit of analysis, have inpatient hospital as the setting of care, and are under an all-payer system.

b. Differences in Patterns of Public Reporting Between the Overall Sample and Various Geographic Levels

In general, programs at each geographic level had patterns in public reporting consistent with that for the overall sample of programs. For instance, programs at all geographic levels reported measures for accountability to the public and consumer choice (80 to 100 percent of programs at a given geographic level), and were all-payer (more than 60 percent of programs at any geographic level) (Table 4). At least 70 percent of programs at any geographic level used facility level as the unit of analysis, consistent with clinician and hospital as the most frequent settings of care. In addition, programs at all geographic levels mainly targeted adult or elderly populations 65 and over. Measures addressing disparities were low across all programs regardless of geographic level; 20 percent or less of programs at any geographic level reported measures addressing disparities. Like the overall sample of programs, use of NQF-endorsed measures was common among programs at all geographic levels (64 to 100 percent at a given geographic level).

Slight differences in patterns between a geographic level and the overall sample were seen in the following areas: phases of care, measurement domain, National Priorities, condition, and data source. Differences manifested in the percent of programs reporting measures within a certain domain. For example, the most commonly reported domain among programs in the overall sample may not be the most commonly reported domain among programs at the community level. However, closer examination of such differences showed that patterns are still similar when percent and mean number of measures are also considered. Consequently, a greater percent of programs may report within a domain that was not consistent with overall patterns; however, the pattern in the percent of measures and mean number of measures was consistent with overall patterns. In general, patterns in public reporting at each geographic level did not differ greatly from the overall sample. Some of the slight differences observed may be influenced by small sample sizes within all geographic levels, except for state. These minor variations are described below and can be seen in Table 4.

Phase of Care. Like patterns in the overall sample, the largest percent of programs at the national, state, and community levels reported measures in the initial evaluation and management, and follow-up phases of care. However, for county and other region, measures mapping to population at risk and follow-up phases of care were more commonly reported. Although a higher

percent of programs reported measures within population at risk for these two geographic levels, the mean number of population at risk measures was at least 17 measures less than that for initial evaluation and management phases of care, indicating that although more programs reported these measures in these two geographic areas, the measures did not comprise a large proportion of those they reported.

National Priority. Programs at the state level were the only ones that had a pattern of reporting for National Priorities completely consistent with that for the overall sample with care coordination as the most commonly reported priority (83 percent). Programs in other geographic levels were more likely to report a measure in other priorities areas. However, close examination of reporting at other geographic levels indicate that patterns were not far off from that for the overall sample, as the percent of measures reported and the mean number of measures that were care coordination were the highest across all geographic levels.

Measurement Domain. Similar to the overall sample, national-, community-, and other geographic-level programs reported process and outcome measurement domains most frequently. However, community-level programs had a higher mean number of cost and utilization measures (76 measures) than process measures (25 measures); this pattern is different than that for the overall sample, where process measures have the higher mean. State programs reported outcome (91 percent) and cost and utilization (85 percent) measures slightly more frequently that process measures (80 percent),although process measures had the highest number of mean measures (27 measures). All county-level programs reported cost and utilization outcome measures, but mean number of process measures was the highest of all the measurement domains (34 measures).

Condition. As with patterns for the overall sample, cardiovascular and pulmonary conditions were the condition most frequently addressed by programs at all geographic levels except other (MSA, HSA, and HRR). Though all programs at the other geographic-level addressed preventive care and 86 percent addressed diabetes, the mean number of cardiovascular and pulmonary measures was higher than that for these two conditions (20 and 17 measures, respectively).

Data Source. Administrative data was the most common data source for the overall sample of programs (85 percent) as well as programs at the national (73 percent), state (89 percent), community (100 percent), and other geographic (86 percent) levels. Eighty percent of county programs reported using patient surveys and other data sources and 60 percent reported using administrative data sources. However, the percent of county program measures associated with administrative data as the data source was 59 percent in comparison to 14 and 12 percent associated with patient survey and other data sources, respectively.

C. Assessing the Types of Measures Mapping to Domains of the NQF Integrated Framework

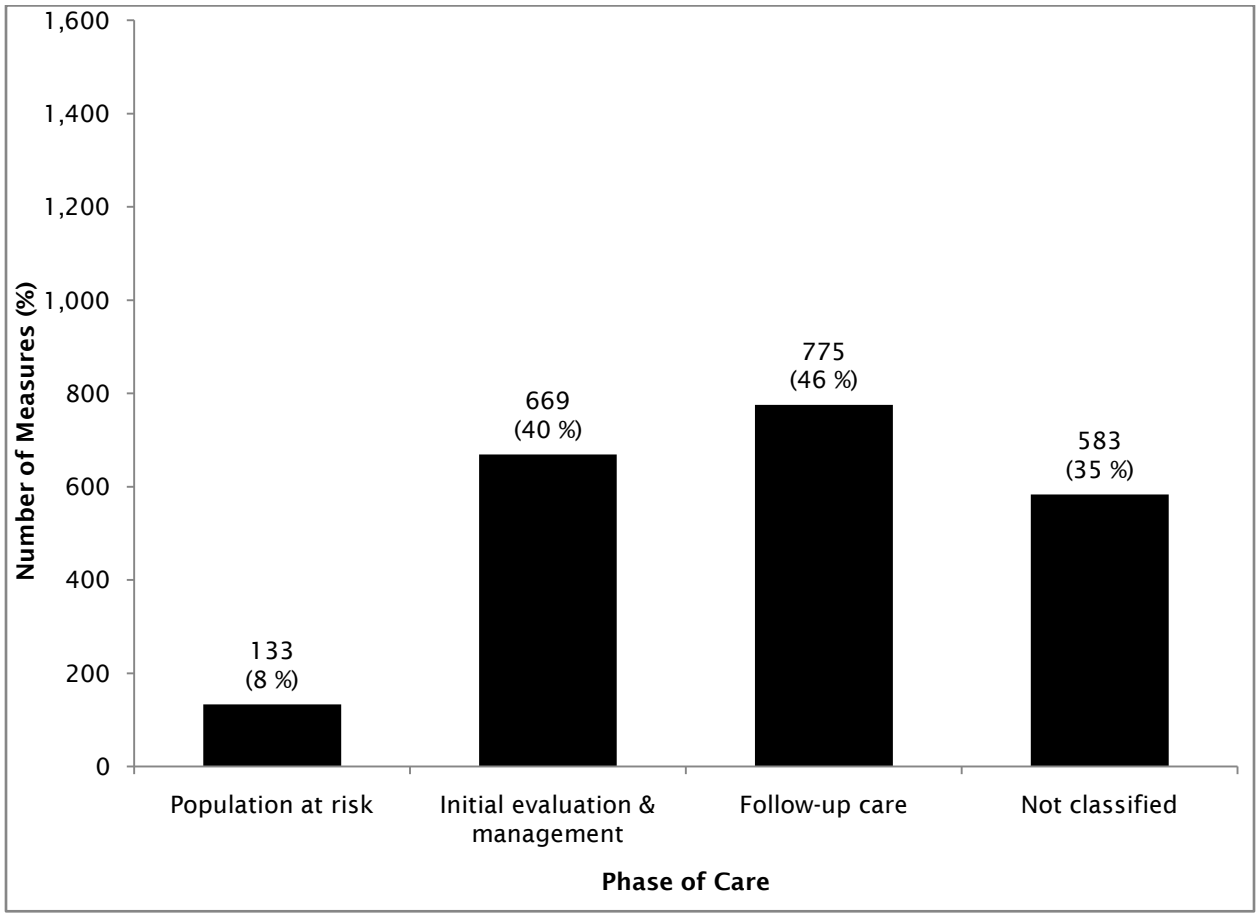
To examine the types of measures within domains of a framework for understanding quality, we mapped unique measures to the NQF integrated framework. This assessment included mapping unique measures to the phases of care from the NQF Episodes of Care framework, National Priorities, measurement domains, and conditions. The current sample provided 1,685 unique measures for mapping; unique measures have the same description, measurement domain, National Priority, and phase of care and are counted only once even if more than one program reported them. We chose to conduct an analysis using unique measures because we were more interested in

understanding the types of measures reported mapping to a framework for understanding quality rather than the enumeration of the measures within the framework.

1. Phase of Care

A majority of unique measures mapped to one or more phases of care, with measures most commonly falling in the initial management and evaluation (40 percent), and follow-up care (46 percent) phases (Figure 5). Very few measures were categorized as population at risk (8 percent). Next, we describe the measure characteristics mapped within each phase of care.

Figure 5. Number and Percent of Unique Measures by Phase of Care (N = 1,685)



Note: Measures may be categorized in one or more phases of care. Therefore, number and percent of measures will add to more than 100 percent. Approximately 28 percent, or 475 measures, fell into more than one National Priority area; most of these were categorized as both initial evaluation & management and follow-up care.

- ***Population at Risk.*** There was overlap between measures classified as population at risk phase of care and as population health in the National Priority area. Consequently, measures assessing the provision of appropriate preventive services, such as immunizations and routine screening measures, were categorized as population at risk.
- ***Initial Evaluation and Management.*** One-quarter of these measures were related to clinical processes of care, such as ensuring patients receive proper testing or medication upon arrival at a hospital or clinic (data not shown). Examples include blood culture performed before the administration of antibiotics for pneumonia patients and the administration of beta blockers upon arrival for heart attack patients. Safety outcomes, including infection and complication rates, were also classified as initial evaluation and management.
- ***Follow-Up Care.*** Over 31 percent of clinical care process measures were classified in the follow-up phase of care; a fifth of these measures were classified in both initial evaluation and management, and follow-up phases (data not shown). These measures often related to care provided to a patient after undergoing initial treatment, such as stopping antibiotics 24 hours after surgery. Care coordination measures, including new parent education and proper medication prescribing based on a patient's condition or discharge status, were also classified as follow-up care.

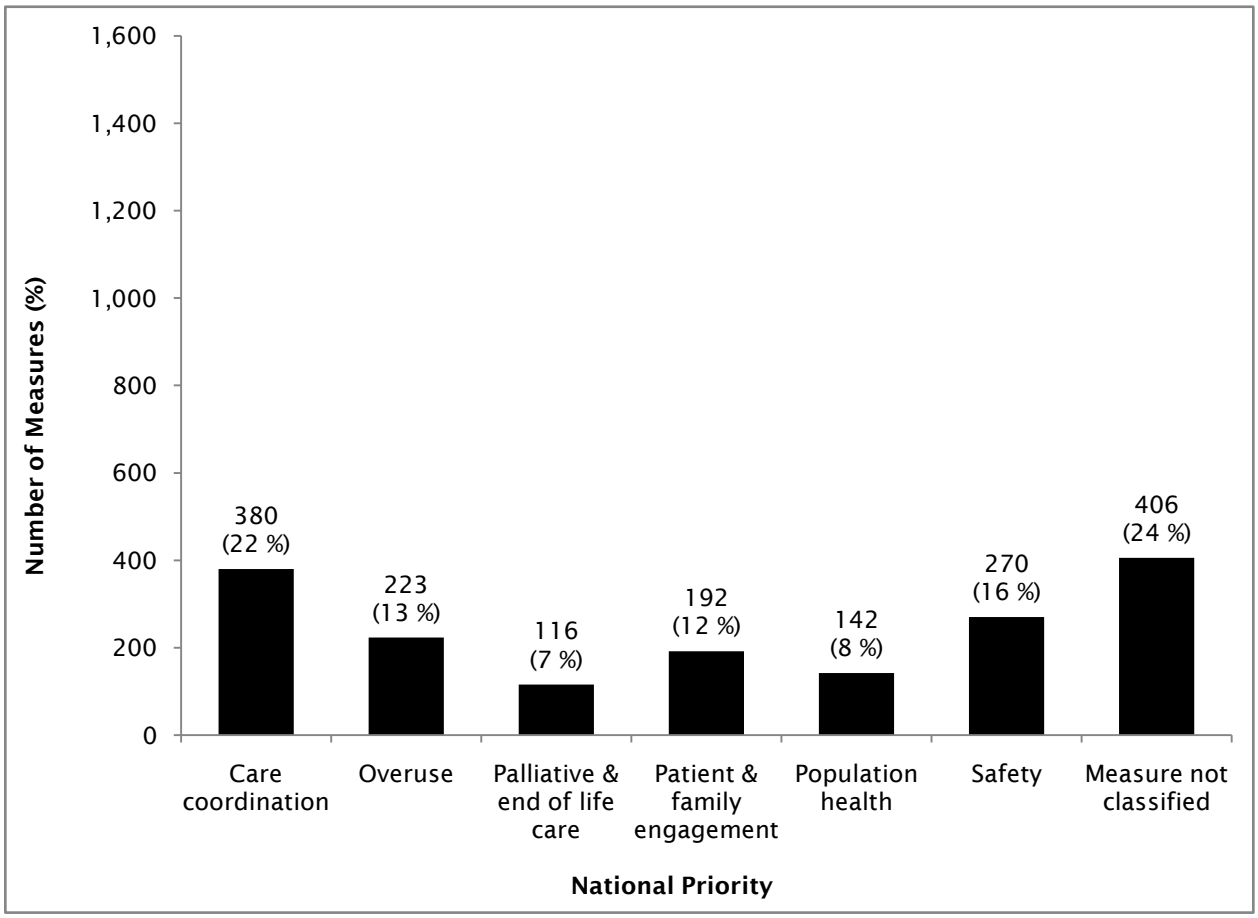
Twenty-eight percent, or 476unique measures, also were categorized in multiple phases of care. Almost all these measures were cataloged as both initial evaluation and management, and follow-up care (470 measures) (data not shown). More than a third of these measures were related to patient experience. The length of stay in a hospital and measures that addressed a patient's ability to access services or providers were also classified as both initial evaluation and management and follow-up care. Clinical care process, quality-of-care, and preventable hospitalization measures also spanned both phases.

A little over a third of unique measures could not be classified into a phase of care. More than half of these unclassified measures were cost or resource use measures related to procedure utilization, national or regional costs, and the cost of treating a particular condition or providing a specific service. Measures related to the health care workforce were not mapped to a phase of care.

2. National Priorities

Patterns in reporting indicate that most measures map to the National Priorities, with three-quarters of the unique measures mapping to a National Priority (Figure 6). Among those mapped, care coordination was the most common category, with 22 percent of measures mapping to this area, and safety was the second most common, with 16 percent. Population health (8 percent) and palliative and end-of-life care (7 percent) had the least number of measures mapped to them. Next, we describe the measure characteristics mapped within each priority area.

Figure 6. Number and Percent of Unique Measures by National Priority (N=1,685)



Note: Measures may be categorized in one or more National Priority areas. Therefore, number and percent of measures will add to more than 100 percent. Approximately two percent, or 44 measures, fell into more than one National Priority area.

- ***Care Coordination.*** These measures were composed of those related to adherence to clinical care best practices to ensure patients who have a particular condition or underwent a specific procedure receive appropriate pre-procedure and/or follow-up care. Medication prescribing and adherence measures, along with hospital admissions for ambulatory care sensitive conditions, were also included among care coordination measures.
- ***Overuse.*** Because the National Priority of overuse is related to the appropriate use of services and procedures and encompasses both underutilization and overutilization, the measures that fell into this priority area were related to volume of procedures, length of stay in an inpatient facility, and medication prescribing.
- ***Palliative and End-of-Life Care.*** About 30 percent of these measures were related to the availability of nursing home and rehabilitation services and rooms or beds (data not shown). About one-quarter of these measures addressed the functional status of patients.
- ***Patient and Family Engagement.*** Patient and family engagement measures were dominated by measures that addressed patient satisfaction, representing just over three-quarters of these measures these measures (data not shown). These measures were

typically derived from surveys and often assessed satisfaction with hospitals, providers, and nursing home staff. These measures were also related to the ease with which patients could access providers and the timeliness of assistance received.

- ***Population Health.*** Measures assessing the provision of appropriate preventive services, such as immunizations (35 percent), were common population health measures (data not shown). Perhaps unsurprisingly 64 percent of these immunization measures targeted children. Screening measures, such as breast cancer screening, along with measures related to blood sugar control among diabetic patients and smoking cessation counseling were also common (35 percent).

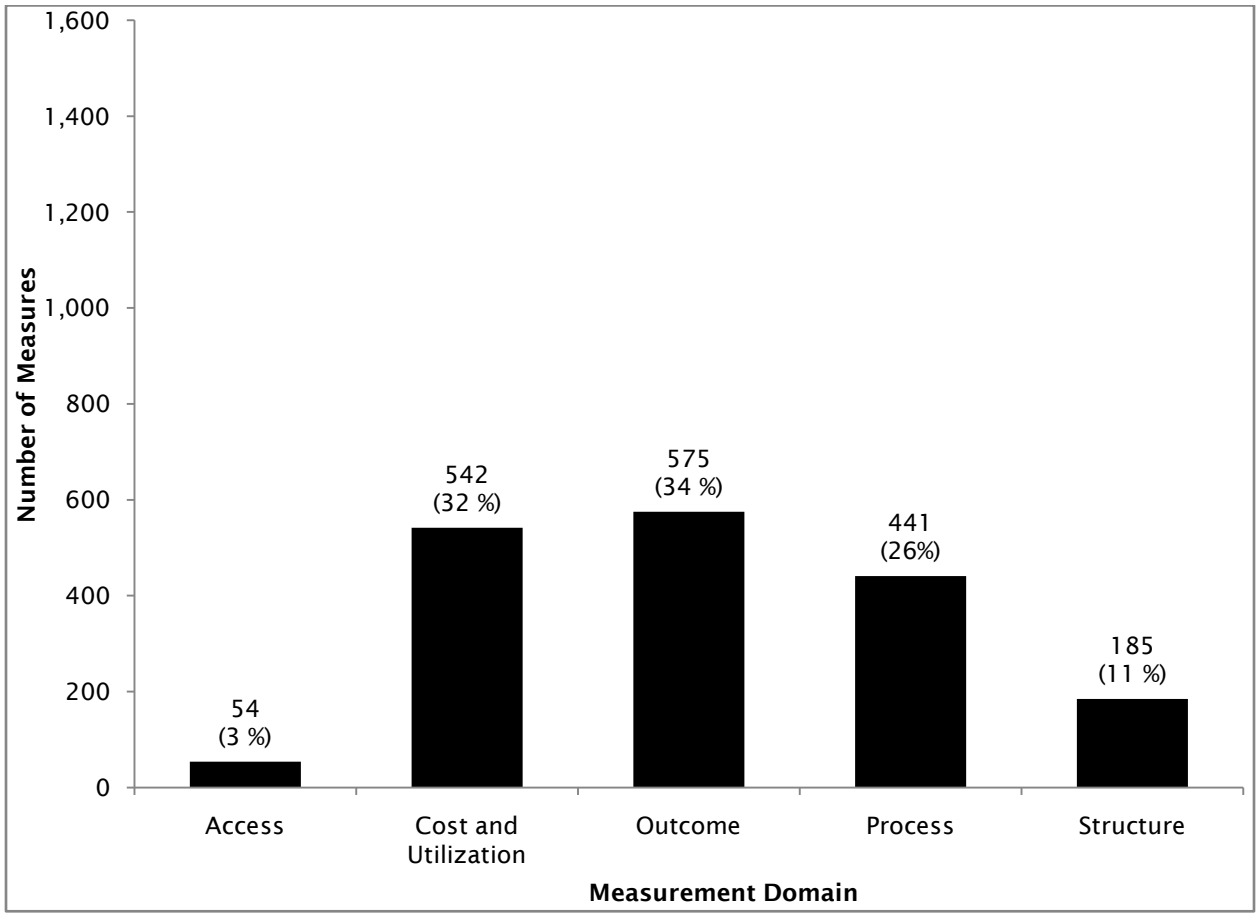
- ***Safety.*** Because mortality rates are related to safety practices in the National Priorities framework, many of the safety measures were mortality measures; 26 percent of safety measures were related to mortality rate (data not shown). Other safety measures, including medication errors, inpatient infection rates, and the presence of pressure ulcers, were included in this National Priority. Measures addressing adherence to safety practices, such as hygiene measures, and the establishment of care protocol were also included among safety measures.

Of the 24 percent of measures not mapped to a National Priority area, i.e., those measures that were considered as "not classified," about half of these measures were related to the cost associated with providing a particular service or treating a specific condition (data not shown). Other measures of resource use that programs reported for comparative purposes, such as national or regional costs, were also unclassified. Measures related to the structure of the health care workforce, including board certification rates and the number of staff or providers at a given facility, were not mapped to a National Priority.

3. Measurement Domain

All unique measures were mapped to a measurement domain (Figure 7). Measures were categorized mainly within the domains of outcome (34 percent), cost and utilization (32 percent), or process (26 percent). Access measures were among those least reported (4 percent), and there were also few structure measures (11 percent), indicating that these may be areas for further promotion and support in public reporting. Next, we describe in greater detail the types of measures included within each measurement domain.

Figure 7. Number and Percent of Unique Measures by Measurement Domain (N=1,685)



Note: Measures may be categorized in one or more measurement domain. Therefore, number and percent of measures will add to more than 100 percent. Approximately seven percent, or 112 measures, fell into more than one measurement domain.

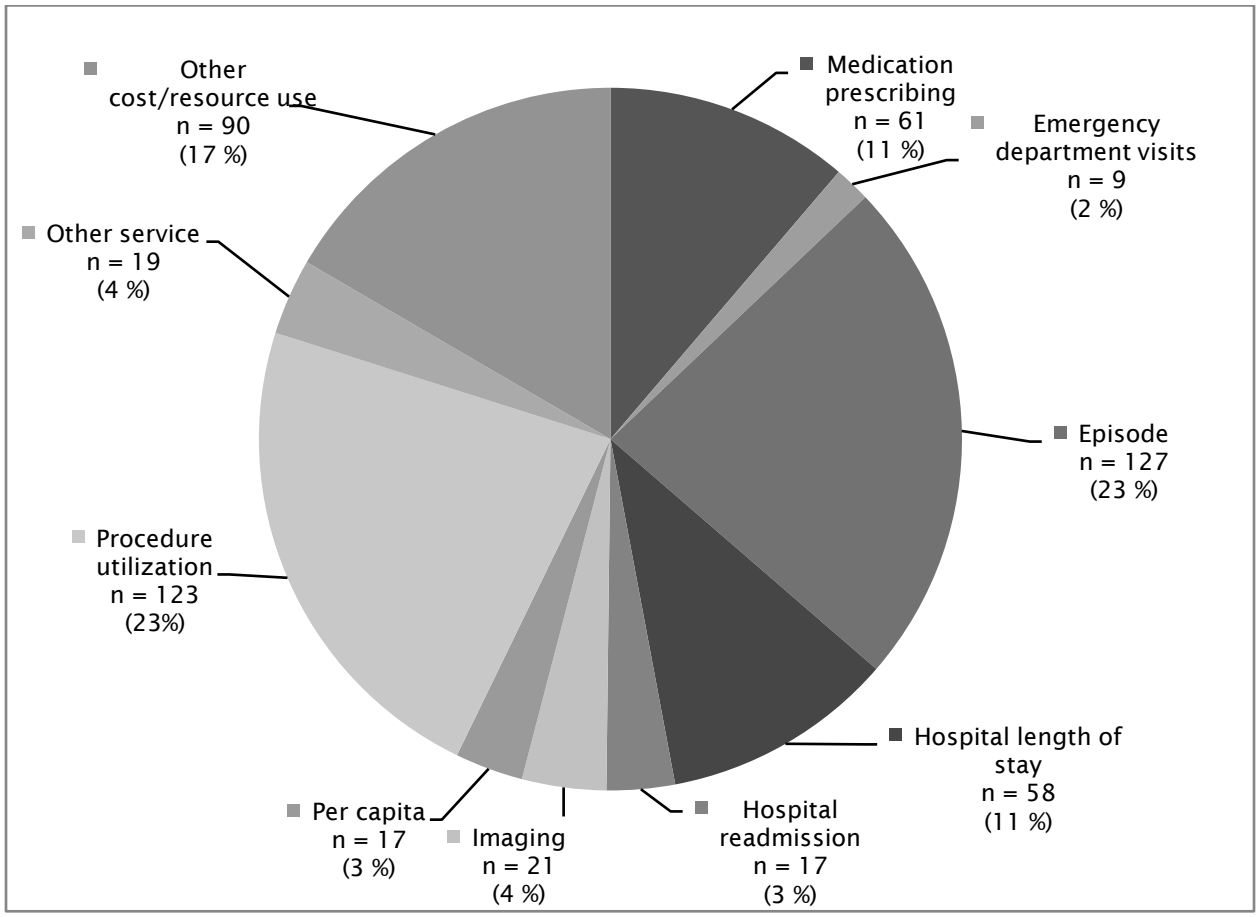
Access

Because access measures made up only three percent (54 measures)of all unique measures, they were not further subcategorized. These measures included those related to timely access to care and services.

Cost and Utilization

Cost and utilization measures represented almost a third of unique measures. Most of these measures were related to the costs associated with an episode of care (23 percent) and volume of procedures used (23 percent) (Figure 8). Measures related to hospital length of stay (11 percent) and prescription of medication (11 percent) were also common. Less common were measures related to imaging, emergency department visits, hospital readmission, per capita spending on health care per person, and other service use; together these measures represented less than a fifth of cost and utilization measures. Other cost and resource use measures also composed a minor fraction of these measures; these types of measures include those related to regional or national pharmacy or medical costs, reimbursement rates, and entities' financial situation, such as capital expenditures or fixed asset financing ratio.

Figure 8. Cost and Utilization Measures by Type (N=542)

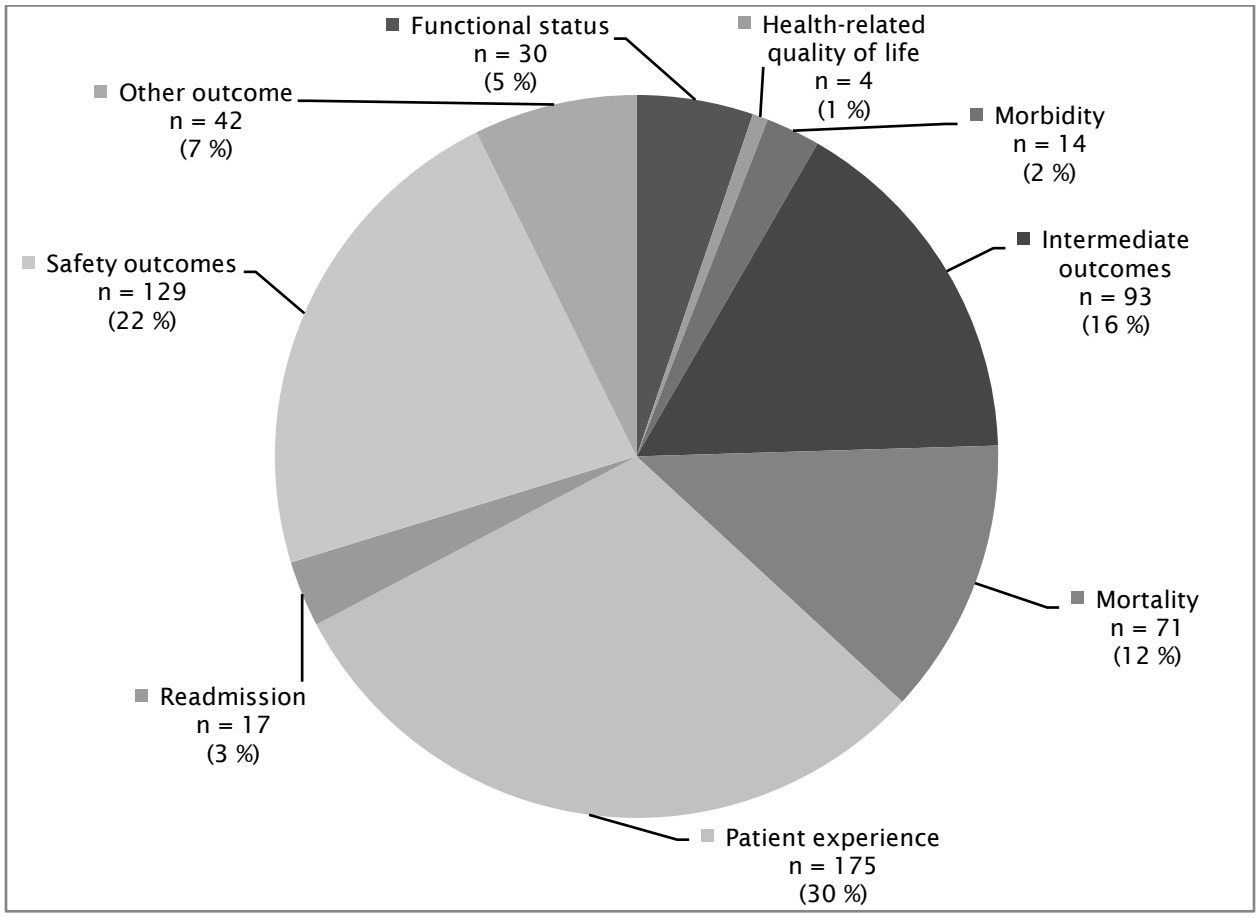


Note: Percents may not add to 100 due to rounding.

Outcome

Similar to cost and utilization measures, outcome measures comprised approximately a third of unique measures. More than half of the measures that were categorized as outcomes were related to patient experience (30 percent) and safety (22 percent) (Figure 9). Patient experience measures were mainly related to patient satisfaction with providers, services, and facility; safety measures included those related to preventable infections and complication arising from surgical procedures. Intermediate outcomes, such as measures blood sugar control among diabetic patients or hospitalizations for ambulatory sensitive care conditions, and mortality outcomes together comprised another quarter of measures. Readmission, morbidity, functional status, and health-related quality of life measures comprised approximately a tenth of outcome measures, and the remaining seven percent were considered as other outcome measures. Other outcome measures were dominated by those related to severity of illness.

Figure 9. Outcome Measures by Type (N=575)

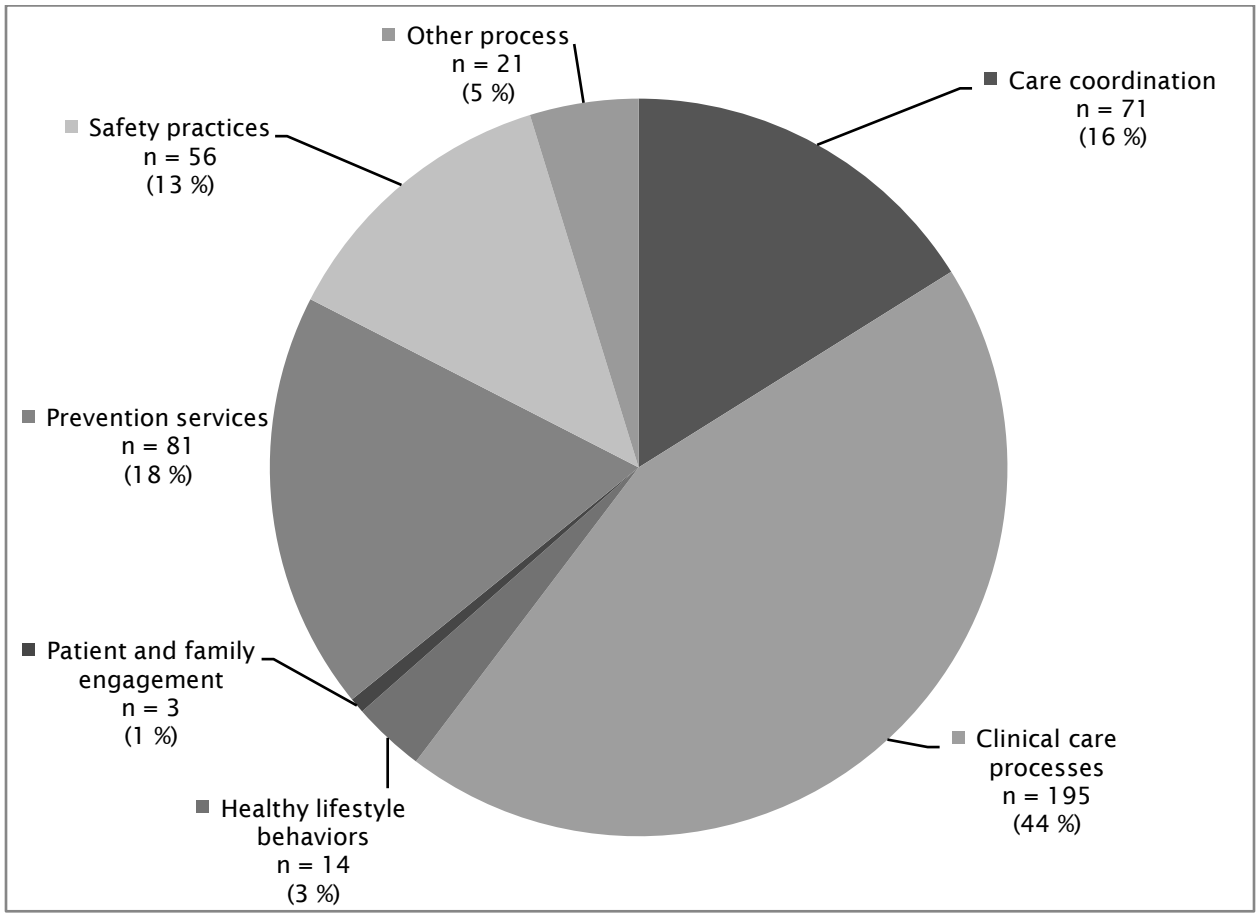


Note: Percents may not add to 100 due to rounding.

Process

A quarter of unique measures were categorized in the process domain of measurement. These measures were predominantly clinical care processes type of measures (44 percent) (Figure 10). Clinical care process measures included those related to smoking cessation, appropriate administration and cessation of antibiotics, and the provision of recommended services based on a patient's condition (for example, cholesterol testing for patients with heart disease), along with composite measures that address processes across different phases of care. Care coordination, prevention service, and safety practice measures made up almost half of the remaining process measures. Care coordination measures were often related to appropriate medication prescribing and adherence, while prevention services were commonly related to immunizations and preventive screening; safety practice measures were related to hygiene and processes to ensure the safe prescribing and administration of medications. Patient and family engagement, healthy lifestyle behaviors, and other process measures made up the remaining tenth of process measures.

Figure 10. Process Measures by Type (N=441)

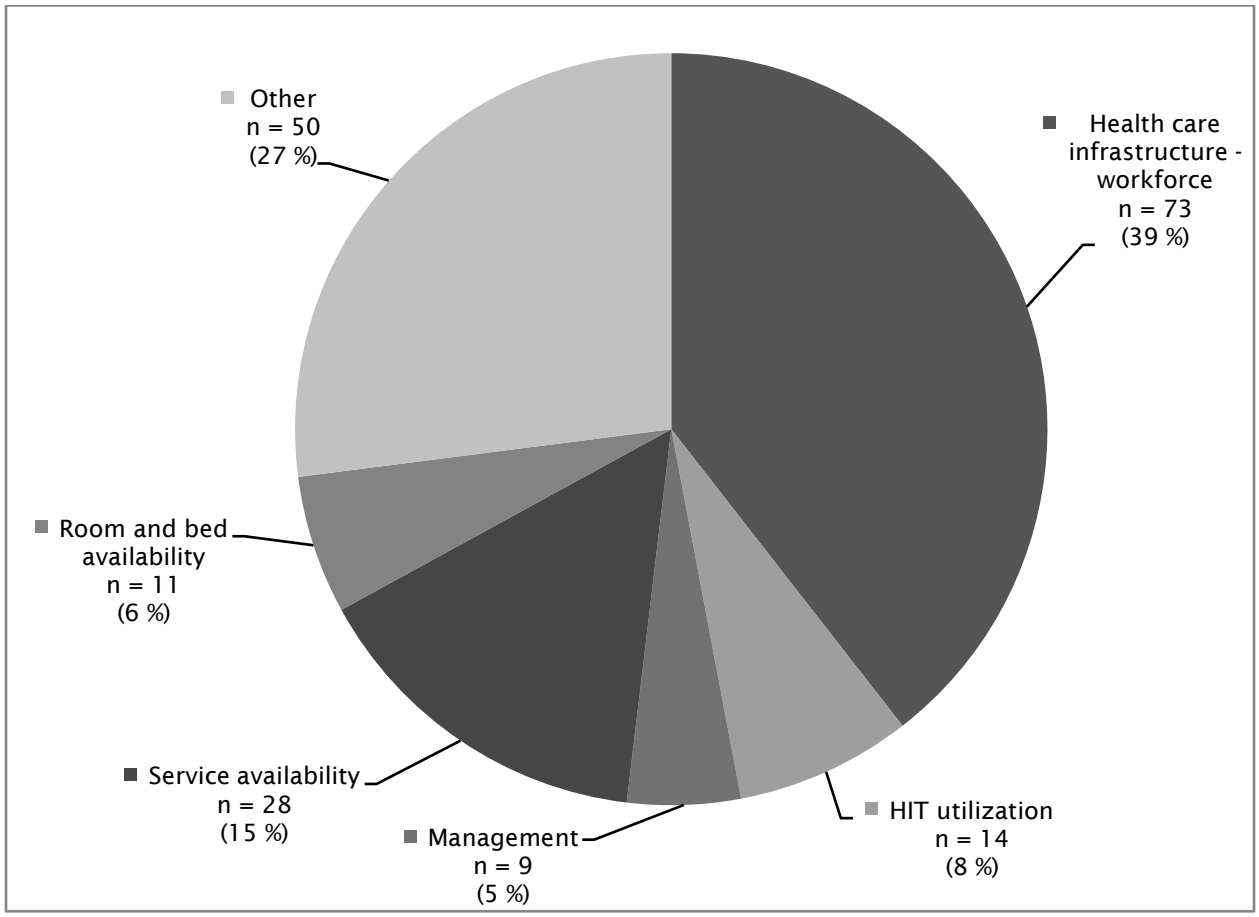


Note: Percents may not add to 100 due to rounding.

Structure

Structure domain measures include those related to supports for the provision of health care; these measures represent approximately a tenth of unique measures. Most of these measures are related to healthcare infrastructure and workforce (39 percent), which is related to the number and type of health care professionals available for providing services (Figure 11). The availability and utilization of health information technology (HIT); service availability; room and bed availability; and management of facilities, personnel, and care together made up a third of structure measures. Measures that fell into the structure domain but could not be classified into any one category represented another quarter of these measures; examples of these measures are fire inspections; whether alcohol, smoking, or pets are allowed in a longer-term stay facility; and reminders for services such as immunizations.

Figure 11. Structure Measures by Type (N=185)

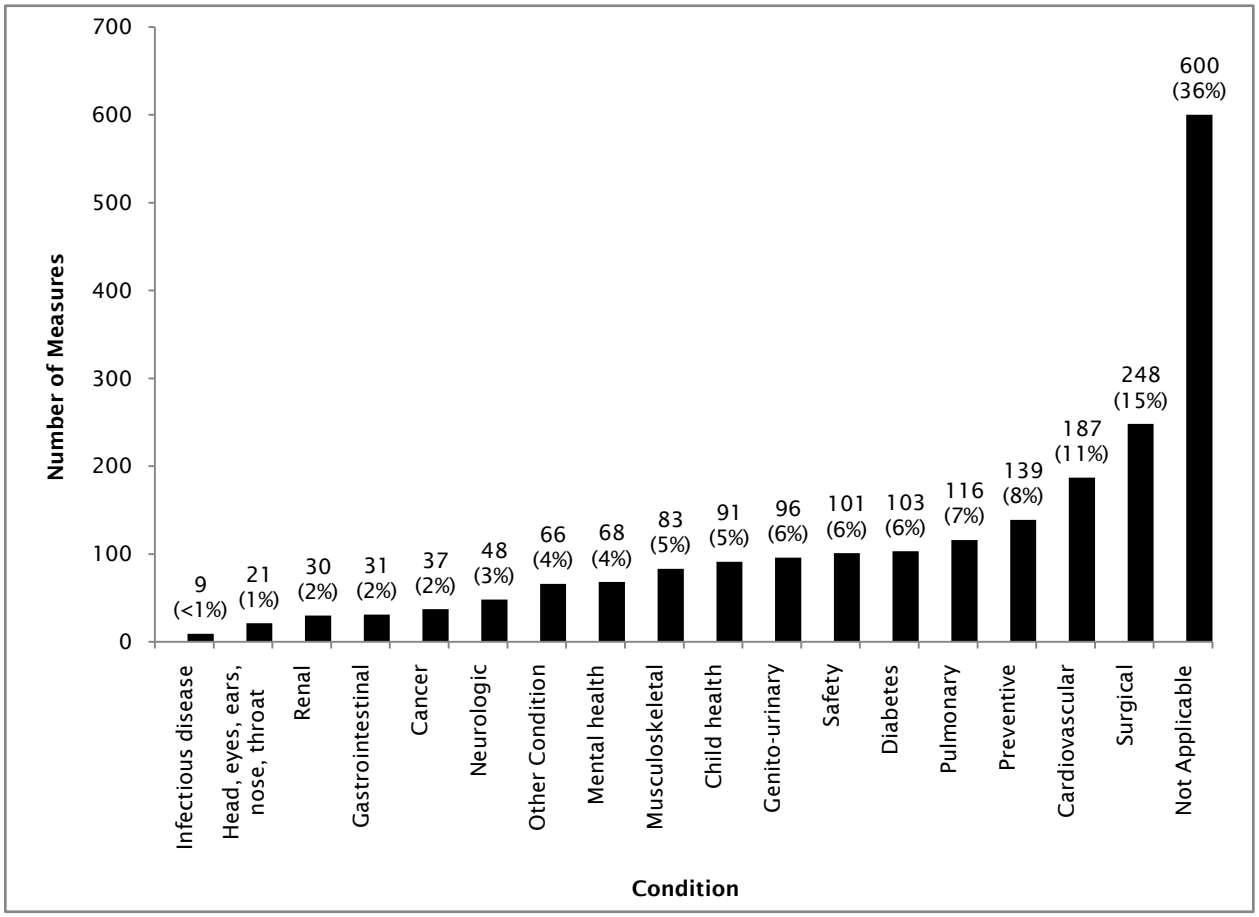


Note: Percents may not add to 100 due to rounding.

4. Condition

The majority of unique measures were condition specific (64 percent).Surgical conditions were the most commonly reported condition (15 percent), followed by cardiovascular (11 percent), preventive (8 percent), and pulmonary (7 percent) conditions (Figure 12).Conditions related to infectious disease, head, eyes, ears, nose, and throat conditions were the least reported conditions. Approximately 36 percent of measures were not condition specific; these types of measures include those related to cost, length of stay, and facility structure.

Figure 12. Number and Percent of Unique Measures by Condition (N=1685)



Note: Measures may be categorized as addressing one or more conditions. Therefore, number and percent of measures will add to more than 100 percent. Approximately 23 percent, or 389 measures, addressed more than one condition.

D. Assessing Convergence to, and Divergence from the NQF Integrated Framework

To delve deeper into the alignment of public reporting with a framework for understanding quality, we combined analyses of both duplicated measures and unique measures to assess convergence to, and divergence from, the NQF integrated framework (Table 3 and Figure 3). Using the combined analyses will allow us to better understand how convergence and divergence may be manifesting—whether it is an issue in volume of measures being reported or types of measures. Generally, this assessment of convergence identifies domains in the integrated framework where a large number of programs and measures report. Conversely, divergence from the framework or gaps in public reporting were analyzed as domains in the integrated framework where few programs reported and measures were reported.

If the goal is to develop a common understanding of the status of health care quality, public reporting would converge with all areas of such a framework—that is, a large number of programs report and a large number of measures are being reported in *all* domains of the framework. For this project, we analyze convergence to the NQF integrated framework as a frame for understanding quality. Below, we summarize the convergence and divergence by phase of care, National Priority area, and measurement domain.[7]

1. Phases of Care

Among three phases of care, programs and measures showed the highest level of convergence to initial evaluation and management, and follow-up care. More than 90 percent of programs reported measures associated with these two phases, with 38 percent of measures mapping to initial evaluation and management and 47 percent mapping to follow-up care (Table 3). In these two phases, the average number of measures reported per program was also uniformly high; programs reported an average of 24 initial evaluation and management measures and 29 follow-up care measures. Examination of unique measures also reflects this pattern, as 40 and 46 percent of unique measures are initial evaluation and management, and follow-up care, respectively (Figure 4).

The priority area with the lowest percent of programs reporting was the population at risk phase. Seventy-one percent of programs reported measures that could be mapped to this area, and only 27 percent of duplicated measures and 8 percent of unique measures mapped to this area (Table 3 and Figure 4). The average number of measure reported per programs was also relatively lower than that for initial management and evaluation and follow-up care phases; programs reported an average of 10 population at risk measures (Table 3).

2. National Priorities

Among National Priorities, patterns in public reporting demonstrated the highest level of convergence with care coordination. The most programs reported measures in this priority area (83 percent of programs) (Table 3). The highest percent of measures could also be mapped to this priority area (32 percent), and the highest average of measures per program was associated with this

[7] Condition was not examined in this analysis, as there was not a high concentration of public reporting for any one condition.

area (23 measures per program). Reflecting this pattern, the largest proportion of unique measures mapped to the care coordination priority area (22 percent) (Figure 3).

Public reporting in all other priority areas lag behind this area, with 72 percent or fewer programs reporting an average of 9 measures (patient and family engagement) to 17 measures (palliative care and end-of-life care) (Table 3). In particular, few programs report palliative and end-of-life care measures (15 percent of measures). However, among programs reporting palliative and end-of-life care measures, they reported an average of 17 measures. Among unique measures, only seven percent mapped to palliative and end-of-life, and eight percent mapped to population health priority areas.

3. Measurement Domain

Public reporting among sampled programs was highly convergent with measurement domains of outcome, process, and cost and utilization. Eight-five percent of programs reported process measures; 90 percent reported outcome measures; and 82 percent reported cost and utilization measures (Table 3). The percent of measures associated with each area were 39 percent (process), 33 percent (outcome), and 26 percent (cost and utilization). The average number of measures reported per program was also relatively high, with 27 measures (process), 22 (outcome), and 19 (cost and utilization). Examination of unique measure also reflects this pattern, where 26 percent are process measures, 34 percent are outcome measures, and 32 percent are cost and utilization measures (Figure 5). Process measures included those related to clinical care processes, healthy lifestyle behaviors, care coordination, patient and family engagement, prevention services, safety practices, and other processes (Figure 8). Outcome measures were mainly patient safety and outcome measures (55 percent of unique measures), but also included readmission, morbidity, mortality, health-related quality of life, intermediate outcome, functional status measures, and other outcomes (Figure 7). Cost measures included those related to procedure utilization, an episode of care, length of stay, hospital readmission, imaging, per capita costs, emergency department visits, medication prescribing, other service costs, and other cost and resource use (Figure 6).

Access and structure measures were the least reported measures, with only 54 and 47 percent of programs reporting these measures, respectively (Table 3). In addition, only two percent of measures could be mapped to the access domain, and six percent mapped to the structure domain. Among programs reporting access and structure measures, the average number of measures reported per program were three and seven measures, respectively. While access and structure measures comprised a larger percentage of unique measures (3 and 11 percent, respectively), there was still considerably lower reporting of these measures than that for other measurement domains (Figure 5).

E. Convergence and Divergence of Publicly Reported Measures Within Specific Domains of the Integrated Framework

After assessment of public reporting occurs within a framework for understanding quality, the next step is to understand within a framework domain the degree it is possible to compare quality across programs. The ability to make such comparisons can further aid in consumer and other stakeholder assessment of program quality and performance and promote informed decision making. To assess comparability, convergence and divergence of measures within a specific domain of the integrated framework is needed. To demonstrate such an analysis, we selected two areas of measurement: cholesterol management and heart failure quality of care. We selected these two areas because they represented conditions associated with several measures within the specific integrated framework domain of follow-up care (phase of care), care coordination (National Priority), and

clinical process (measurement domain). Analyses using these two measure areas illustrate the ability to use the database to identify measure convergence and divergence within a specific integrated framework domain and topic. Assessment of convergence and divergence within a specific domain can be used to help make decisions regarding standardized measures for a community dashboard.

For these analyses, we used "convergence" to indicate similarities along key characteristics of measures and divergence to indicate differences along these characteristics. The measure characteristics along which we compared measures included measure description, numerator, denominator; purpose of measurement; data source; target population; geographic level of reporting; use of NQF-endorsed measures; unit of analysis; and setting of care. Appendix D, Tables D.2 and D.3 present the measures reported by program and their characteristics within these two domains of the integrated framework.

1. Cholesterol Management Measures

Eight cholesterol management measures were identified and are related to the measurement of patient cholesterol levels. There are specific areas of convergence and divergence within these measures. Purpose of measurement, data source, geographic level of program, use of NQF-endorsed measures, and unit of analysis show a fair amount of conformity between all measures. Specification of target population and setting of care for measurement show greater variation. Numerator and denominator represent a unique case where the overall concept for measurement is similar. However, there are differences in numerator specifications that would make a valid comparison between measures impossible. Therefore, to truly harmonize these measures, standardized numerator and denominator definitions are needed.

- ***Numerator and Denominator.*** Though the wording of the denominator specifications differs slightly, the populations specified are the similar across all the measures. The denominators are those who have a cardiovascular or heart condition. However, closer examination of numerator specifications reveals significant variation among the measures. For example, the numerator for two measures identifies those who received cholesterol testing, whereas most other measures' numerators identify those who have a specific testing value (i.e., LDL-C < 100mg/dL). One program also specifies two consecutive years of low LDL-C values.
- ***Purpose of Measurement.*** All eight measures were reported for accountability to stakeholders and aiding consumer choice.
- ***Data Source.*** Administrative claims data are used uniformly to develop these measures.
- ***Target Population.*** Five of the eight measures specified the ages 18 to 75 years old as the population for measurement, or adults and advanced age populations. The other three measures did not specify the age range of the target population.
- ***Geographic Level.*** Seven of the eight measures reported at the state geographic level. The remaining measure reported at the national level.
- ***NQF Endorsement.*** None of the programs used an NQF-endorsed measure. NQF-endorsed measures related to cholesterol control are specific to diabetes patients (NQF-endorsed measure #64) and the general population (NQF-endorsed measure #75). Other cholesterol control measures are related to use of lipid-lowering therapies (NQF-endorsed measures #74, #118, #618, #627, and #636).

- ***Unit of Analysis.*** All eight measures used a health plan as the unit of analysis.
- ***Setting of Care.*** Half of the measures specify hospital inpatient as the setting of care, and the other half specify clinician hospital as the setting.

2. Heart Failure Quality-of-Care Measures

Six measures address the quality of care for heart failure patients. These measures diverge in instrumental ways in definition, though the purposes, data sources, NQF endorsement, unit of analysis, and setting of care are the same. Similar to cholesterol management measures, differences in measurement description, numerator, and denominator make a valid comparison between measures difficult. Again, such a finding supports that, to truly harmonize measures, standardized numerator and denominator definitions are needed.

- ***Measure Description, Numerator, and Denominator.*** From the measure descriptions, it is difficult to ascertain the exact areas of convergence and divergence due to numerators and denominators not being clearly specified and provided through the public reporting. However, it is possible to identify general areas of divergence. For example, one measure combines the CMS measure with hospital charges to produce a type of efficiency measure, while another measure is the composite of two individual measures reported in CMS Hospital Compare. Still another numerator is simply the number of patients receiving all appropriate care for which they qualify, indicating that care provided may vary by patient. Only two of these measures explicitly described a numerator and denominator or phrased the description so that the numerator and denominator could be deduced.
- ***Purpose.*** All six measures were reported for accountability to stakeholders and aiding consumer choice.
- ***Data Source.*** Five of six measures used administrative claims data as a data sources, while one measure used electronic health records.
- ***Target Population.*** All measures did not specify the target population.
- ***Geographic Level.*** Five of the six measures reported at the state geographic level. The remaining measure reported at the national level.
- ***NQF Endorsement.*** None of the programs used an NQF-endorsed measure. NQF-endorsed measures related to heart failure are specific to diagnostic evaluation, discharge instructions, readmission, and mortality (NQF-endorsed measures #135, #136, #330, and #358), but none was related to heart failure quality of care.
- ***Unit of Analysis.*** All six measures used the facility as the unit of analysis.
- ***Setting of Care.*** All measures specified hospital inpatient as the setting of care.

IV. CONSIDERATIONS

Findings from the mapping and analysis of public reporting programs and their measures have several implications for public reporting overall and development of a community dashboard of standardized measures. In addition, several limitations should be considered in the interpretation of results.

A. Implications for the Field of Public Reporting

The implications for the field of public reporting center around coordination of public reporting efforts, use of a framework for understanding quality, and areas for development in public reporting. We describe the implications within each area below.

Coordination of Public Reporting Efforts. In developing the sample of program, more than 80 percent of programs eligible for the sample implemented public reporting in 2005 or later, indicating that since 2005 public reporting has grown. However, it is not known from our analysis if the expansion in the number of efforts has been coordinated. While cataloging programs, we noted that the number and types of measures reported vary considerably across individual programs and that reporting of measures along the same topic, such as cholesterol management and heart failure quality of care, also has a degree of variation. Such variation is expected, as programs vary in resources available for public reporting and report for different purposes and to various audiences. However, some standardization in reporting may be desirable for comparison between programs to aid in consumer choice, assessment of performance, and accountability. Utilization of NQF-endorsed measures by programs if available in program areas for measurement is one method for promotion of standardization. However, fewer than 30 percent of the measures reported among sampled programs were NQF endorsed, indicating that further collaboration with programs to adopt currently endorsed or develop newly endorsed measures may be beneficial.

Use of a Framework for Understanding Quality. Mapping and analysis of measures to NQF's integrated framework indicates that there is variation in the degree of convergence across framework domains. If a goal of public reporting is to enhance and broaden public understanding of quality, public reporting would ideally be convergent with all areas of the framework. Therefore, for areas within the NQF integrated framework where few programs are currently reporting and few measures are being reported, further investigation of barriers to reporting may be needed. These areas include population at risk phase of care; patient and family engagement, and palliative and end-of-life care priority areas; and access and structure measurement domains. These barriers may include lack of data availability, lack of program knowledge about the importance of reporting within a framework for understanding quality, or other issues. Diagnosing these barriers will help in developing strategies to overcome them. In assessing areas where barriers may exist, it will also be important to review areas where programs are converging with the framework, such as initial evaluation and management, and follow-up phases of care; care coordination priority area; and process, outcome, and cost measurement domains. As with assessment of barriers, factors that facilitate reporting within the framework will help develop strategies to support continued reporting in these areas and strategies that may be applied to areas within the framework where programs report less frequently.

Potential Areas for Development in Public Reporting. Disparities (racial/ethnic, socioeconomic, and other) arose as a potential area where there may be larger gaps in public reporting. However, it is hard to assess the additional types of analyses in which programs engage

after initial measurement. For example, programs may stratify measures by race, gender, or income, although this may not be explicitly stated in measure specifications or as a goal for measurement. Because disparities are a key issue in health care, further exploration is needed to understand use of public reporting to track disparities and inform interventions to decrease them. To a lesser extent, measures targeted to outpatient imaging, laboratory, and pharmacy were also not widely reported. This may be due to data availability or ease of obtaining such data.

B. Considerations for Development of a Standardized Community Dashboard

Although one of the main goals for the study was to assess current patterns in public reporting, another goal was to provide data to inform decision making around targeted public reporting efforts, such as the development of a standardized community dashboard. Such a dashboard would promote the use of similar measures across community programs. Thus, a relevant issue that the study addressed was the factors for consideration when measures are to be harmonized. The review of convergence and divergence within two specific domains of the integrated framework supports the notion that the harmonization of measures begins with standardized measurement specification. However, the extent to which harmonization in numerator, denominator, target population, data source, etc. is needed for comparability will depend on the purpose and uses for harmonization.

Several factors related to use and feasibility of public reporting require consideration in attempting harmonization. Some programs will want or need to preserve some variability in such measurement specifications for accountability in reaching specific program objectives and serving specific populations. In addition, other factors for consideration are the resources, data, and technical support available to community programs for the development of measures. For instance, current patterns show an emphasis on program reporting efforts in health care processes, outcomes, and costs, rather than patient and family engagement and health behaviors, indicating that there may be gaps in these areas. These gaps may indicate lack of data available to develop these measures, as these types of measures cannot be developed consistently from administrative data, which is most easily accessible to programs. An examination of the data sources that programs used showed that 70 percent of measures were developed using administrative data. This pattern in data source is consistent across programs in each geographic level; therefore, resources and capacity of programs at the community level to secure, process, and analyze needed data should also be considered in selecting measures for a standardized community dashboard.

C. Considerations in the Interpretation of Findings

In this section, we discuss several caveats that influence the interpretation of findings. These caveats are related to the representativeness of the sample, guidance for categorizing and cataloging programs and measures, focus of the study on the number and types of publicly reported measures, and availability and presentation of information on public reporting websites.

Representativeness of the Sample. The sample was selected to be representative of diversity of programs according to key informant input and project criteria for program selection, therefore, the sample may not be representative according to other standards. In addition, since the environmental scan was conducted, new public reporting programs may have been initiated; therefore, the sampling frame may have changed since we conducted the study. State programs also comprised a large number of the programs and, therefore, results may be largely driven by characteristics of these programs. However, the distribution of state programs was representative of the sample frame. Finally, we dropped three programs with 700 or more measures from the original

sample, as we did not want these programs to skew overall results. Despite these caveats about the sample, the study provides information on the general landscape of public reporting.

Guidance for Categorizing and Cataloging Programs and Measures. To make decisions regarding the categorization of programs and measures, we relied on definitions in the codebook, and guidance provided by NQF on interpretation of definitions. Final decisions were subject to team interpretation of definitions and guidance. However, several procedures were undertaken to ensure internal consistency of the data. Quality checks of every data field were conducted to ensure consistent interpretation of definitions and guidance. Training and standard procedures for communication were also implemented to ensure inter-coder reliability.

Focus of the Study on the Number and Types of Publicly Reported Measures. To develop a broad understanding of the public reporting landscape, the study was focused on assessing the number and types of measures being public reported. As a result, our study did not examine the quality of measures being reported; many measures may have been reported in a specific domain, but we did not assess or track the extent to which these measures were validated.

Availability and Presentation of Information on Public Reporting Websites. Information cataloged was limited to information available through the public reporting program's website. For example, a program may have numerator and denominator information internally, but not have it posted on its website. In this case, if we could not deduce numerator and denominator descriptions, we left the numerator and denominator fields in the database blank. In addition, how measures were cataloged was subject to how they were presented on the website.

V. CONCLUSION

As public reporting continues to grow, there will be considerable variation in reporting and measurement if current patterns persist. This variation in practice may well contribute to innovation in this evolving field. However, it also creates challenges to efforts to develop a coordinated, national approach quality and efficiency in healthcare. Continued assessment of potential areas for development and coordination of efforts will enhance the quality and usefulness of public reporting initiatives.

This study provides a basic overview of the public reporting landscape that can be used as a baseline for future investigations. It also illustrates a process for identifying areas where standardization and harmonization is possible or needed for a community dashboard or other public reporting coordination effort. NQF can use the database developed as part of the study as a tool to continue its review of public reporting; programs and measure scan continually be added to, and updated in, the database. The database can also support further analyses of convergence and divergence to aid NQF as a consensus-building body in setting goals and priorities in public reporting.

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APPENDIX A. SAMPLE SELECTION

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MEMORANDUM

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TO: NQF

FROM: Mathematica Policy Research **DATE:** 5/26/2010

SUBJECT: Sampling of Public Reporting Programs

This memo summarizes the approach for sampling public reporting programs that we will include in the environmental scan. We identified programs through a literature search and interviews with six key informants.[1] We will use this memo to discuss with NQF the selection of the final sample of 70 to 75 programs for the environmental scan.

I. SAMPLING FRAME

The literature search and key informants identified 332 potential programs for inclusion in the sampling frame. Of these programs, 162 met project criteria for inclusion, and 170 did not. We excluded:

- 34 programs that did not have websites for us to use to find public reports
- 86 programs that lacked evidence of public reporting as specified by our definition[2]
- 13 programs that made their reports available only to subscribers
- 37 programs that did not produce their own measures but provided links to other programs' reports through their websites

Table 1 lists programs included in and excluded from the sampling frame and reasons for exclusion.

[1] Key informants are not named to protect their confidentiality. These key informants are active in public reporting, and their knowledge encompasses a variety of perspectives, including providers, health plans, community organizations, and consumers.

[2] Public reports are defined as findings that compare measures of provider performance or track indicators of population health and are accessible to target audiences that may include consumers, providers, and other individuals or organizations. Excluded are reports that health plans make available only to their members, reports produced by organizations only for internal purposes, and reports made available only for a fee.

II. SAMPLING STRATEGY

We began by collecting information on programs involved in quality initiatives of interest to NQF, including Aligning Forces for Quality, the Better Quality Information for Medicare Beneficiaries Pilot Project, Charter Value Exchanges, the National Academy for State Health Policy, the National Association of Health Data Organizations, and Network for Regional Healthcare Improvement (NRHI). We also identified programs in the Agency for Healthcare Research and Quality's Report Card Compendium. Finally, we also added programs identified in our literature search, notably programs that participate in the National Business Coalition on Health.

As Figure 1 shows, the approach to sampling is a guided selection of programs using the following criteria: key informant recommendation, geographic representation, and mixture in stage of adoption of public reporting. The list below summarizes the number of programs by tier. Table 2 presents each of the 162 programs in the sampling frame by these criteria.[3]

- **Key informant recommendation:** The sample includes 85 eligible programs that were recommended by the key informants, were included in the Ambulatory Care Quality Alliance's (AQA) environmental scan, or are members of NRHI.[4]

- **Geographic representation:** The sample also includes 30 programs reporting nationally, 106 reporting at a state level, 9 reporting at a county level, 4 reporting at a community level, and 13 reporting at another regional level, such as a metropolitan statistical area.

- **Stage of adoption:** We identified 27 programs that produced a public report before 2005 as early adopters; the remaining 135 programs produced a public report in 2005 or later.

III. SAMPLE SELECTION

Of the 85 programs recommended by key informants, there is geographic representation (20 national, 52 state, 5 county, 2 community, and 6 other). Informants also recommended 17 early adopters and 68 late adopters. To aid in the selection process, we developed Table 3, which depicts the intersection between key informant recommendation (including AQA environmental scan and NHRI member programs), stage of adoption, and geographic level. Table 3 can be used for the prioritization of programs for inclusion. (For example, if there is a priority for including

[3] Because all 159 programs had recent public reporting as of 2008, this factor was not a criterion for selection.

[4] Key informants that we contacted for discussion were given a sample list of 61 programs as examples to choose from. Key informants also added to this list. Without inclusion of NRHI and AQA programs, key informants recommended 50 programs.

AF4Q programs, we can use Table 3 to assess the effect of their inclusion on the representativeness of the sample.)

The final sample included 72 programs, identified in Table 2 by bold italics. To arrive at this number, we first considered the 85 diverse programs recommended by key informants. Next, we included the one of two community-level programs that key informants did not recommend, given the relative paucity of such programs and NQF's interest in understanding reporting at these levels for the purposes of developing the community dashboard. This brought the sample to 86 programs.

To reduce the sample number to 70 to 75, we examined the 31 programs that were included in the AQA environmental scan and not recommended by an individual key informants; we retained in the sample the 11 programs that participated with AF4Q, NAHDO, or NASHP.[5] We also retained 6 additional programs that were included in the AQA environmental scan; these programs appear to offer a breadth of measures related to consumer ratings and costs and provider performance.[6] With this approach, we excluded 15 programs that were identified in the AQA scan. Our result at this point was a sample of 71 programs.[7] Finally, among the programs not recommended by key informants, we included Dartmouth Health Atlas and Pacificare as programs that offer substantial information that may be useful in a community dashboard.

After discussion with NQF, we added NCQA Physician Recognition Program (Medical Home) and Buyers HealthCare Action Group, bringing the sample to 75 programs. Key informants validated this list of selections. After the environmental scan, we removed three programs as outliers with 700 or more measures; these programs had mostly cost and utilization measures and included Florida Health Finder, Nevada Compare Care, and Revolution Health. Table 4 lists the final sample of 72 programs.

This memo was revised on 8/30/2010 to include additional information about the final sample.

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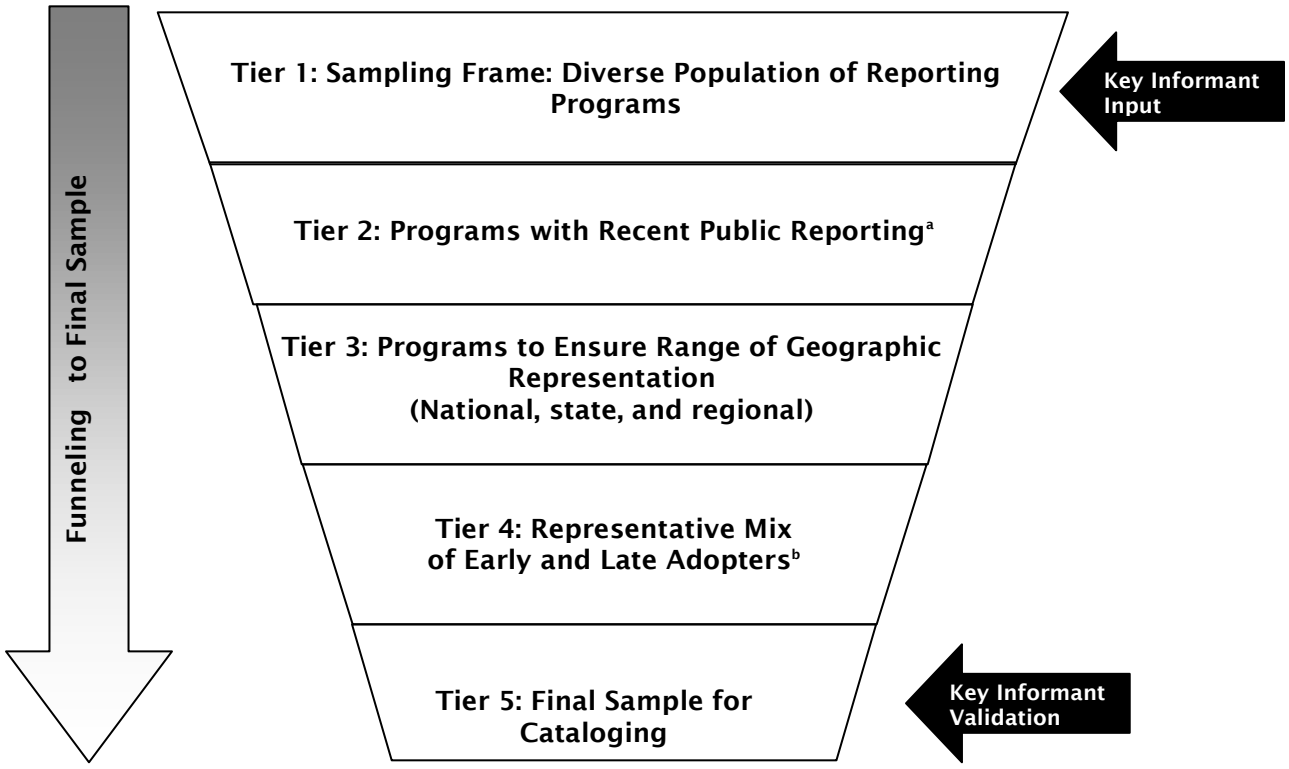
[5] Alliance for Health (Michigan); Greater Boston Quality Coalition (GBQC); Illinois Hospital Report Card; Nevada Compare Care; New Hampshire Purchasers Group on Health; New Jersey Department of Health and Senior Services; Ohio Hospital Compare; Oregon Department of Human Services; Rhode Island Department of Health; Texas Health Care Information Council; Vermont Department of Banking, Insurance, Securities, and Health Care Administration

[6] Dr. Score; Health Partners; My Health Care in Utah; Revolution Health; and United Health: Find a Physician

[7] Consumer Connection; Doctor Scorecard; HealthPartners; Indiana State Department of Health; Kentucky Office of Health Policy; MVP Physician Quality Report; My Doc Hub; My Health Experience; RateMDs; Society for Assisted Reproductive Technology (SART); Utah CheckPoint; VIMO: Search and Rate a Doctor; Vitals; Why Not the Best?; Wisconsin Office of the Commissioner of Insurance.

Figure 1. Sampling Approach



[a] Programs have publicly reported data as of January 1, 2008.
[b] Early adopters include those that publicly reported data before 2005. Late adopters issued their first public report in 2005 or later.

TABLE 1

SAMPLING FRAME (N=332)

	Sample Frame				
	Eligible for sample	No website	No evidence of public reporting	Subscriber only	No measures produced or repackaged (e.g., links to other websites)
TOTAL	162	34	86	13	37
Program Name					
1. ACHIEV		•			
2. AFL-CIO Employer Purchasing Coalition		•			
3. AGA Digestive Health Outcomes Registry				•	
4. AHRQ Healthcare Cost & Utilization Project (HCUP)	✓				
5. Alabama Quality Assurance Foundation					•
6. Albuquerque Coalition for Healthcare Quality					•
7. Alliance for Health (Michigan)	✓				
8. Alliance for Health Care Quality Improvement in Kansas		•			
9. Alliance for Improving Quality in Healthcare (California)		•			
10. American Academy of Family Physicians			•		
11. American Board of Internal Medicine			•		
12. American Board of Medical Specialties			•		
13. American College of Physicians			•		
14. American Heart Association	✓				
15. America's Top Docs			•		
16. Angie's List				•	
17. Arizona State University Center for Health Information & Research (CHIR)			•		
18. Arizona Value Exchange		•			
19. Arkansas Foundation for Medical Care					•
20. Better Health Greater Cleveland	✓				
21. Blanchard Valley Employer Data Project		•			
22. Blue Shield of California				•	
23. Book of Doctors			•		
24. Bridges to Excellence	✓				
25. Business Health Care Group					•
26. Businesses on Health		•			
27. Buyers Health Care Action Group	✓				
28. California Advocates for Nursing Home Reform Guide	✓				
29. California Cooperative Healthcare Reporting Initiative	✓				
30. California Department of Public Health	✓				
31. California HealthCare Foundation[a]	✓				
32. California Office of Patient Advocate	✓				
33. California Office of Statewide Health Planning and Development	✓				

Table 1.1

TABLE 1 (*continued*)

		Sample Frame				
		Eligible for sample	No website	No evidence of public reporting	Subscriber only	No measures produced or repackaged (e.g., links to other websites)
34.	California Quality Collaborative			•		
35.	Capital Area Health Alliance			•		
36.	CareEntrust			•		
37.	CarePathways				•	
38.	Carolinas Center for Medical Excellence			•		
39.	Cedar Rapids Healthcare Alliance			•		
40.	Center for Health Transformation			•		
41.	Central Indiana Alliance for Health (CIA4H)		•			
42.	Chiropractic Society of RI			•		
43.	ChoiceTrust			•		
44.	CIMRO of Nebraska[b]					•
45.	CiteHealth	✓				
46.	CMS Medicare Compare[c]	✓				
47.	Coalition on Health		•			
48.	Colorado Ambulatory Surgery Center Association			•		
49.	Colorado Business Group on Health	✓				
50.	Colorado Clinical Guidelines Collaborative			•		
51.	Colorado Health Institute	✓				
52.	Colorado Hospital Report Card	✓				
53.	Colorado: The Center for Improving Value in Health Care (CIVHC)			•		
54.	Community Health Alliance of Humboldt-Del Norte	✓				
55.	Connecticut Hospital Association	✓				
56.	Connecticut Hospital Performance Comparisons			•		
57.	Connecticut Insurance Department	✓				
58.	Consumer Connection	✓				
59.	Consumer-Purchaser Disclosure Project			•		
60.	Consumer's Checkbook[d]				•	
61.	Corporate Health Associates, Inc.			•		
62.	Dallas-Fort Worth Business Group on Health	✓				
63.	Dartmouth Atlas of Health Care	✓				
64.	Delmarva Foundation for Medical Care, Inc.					•
65.	DirectNet, LLC			•		
66.	DocInfo			•		
67.	Doctor Finder			•		
68.	Dr. Score	✓				
69.	Dr. Scorecard	✓				
70.	Economic Alliance for Michigan			•		

TABLE 1 (*continued*)

		Sample Frame				
		Eligible for sample	No website	No evidence of public reporting	Subscriber only	No measures produced or repackaged (e.g., links to other websites)
71.	eHealth Connecticut			•		
72.	Employer Health Care Alliance Cooperative		•			
73.	Employers Coalition for Healthcare Options, Inc. (ECHO)		•			
74.	Employers' Coalition on Health (Rockford)	✓				
75.	Employers Health (Ohio)	✓				
76.	Employers Health Coalition of Idaho, Inc.			•		
77.	Employers' Health Coalition (Arkansas)	✓				
78.	eQ Health Solutions					•
79.	Finger Lakes Health Systems Agency			•		
80.	Florida Health Care Coalition (FHCC)	✓				
81.	Florida Health Finder	✓				
82.	Florida Nursing Home Guide	✓				
83.	Focus on Hospitals	✓				
84.	Fond du Lac Area Businesses on Health			•		
85.	Foundation for Health Care Quality	✓				
86.	FrontPath Health Coalition	✓				
87.	Georgia Hospital Association	✓				
88.	Georgia Hospital Association Research and Education Foundation		•			
89.	Georgia Medical Care Foundation, Inc.					•
90.	Geriatric Care of Nevada		•			
91.	Greater Boston Quality Coalition (GBQC)	✓				
92.	Greater Milwaukee Business Foundation on Health, Inc.		•			
93.	Hanover Area Health Care Alliance, Inc.		•			
94.	Harvard Pilgrim Health Care/Harvard Pilgrim Health Care of New England	✓				
95.	Hawaii Business Health Council		•			
96.	Health Action Council of Northeastern Ohio					•
97.	Health Alliance (Indianapolis)		•			
98.	Health Benchmarks, Inc.			•		
99.	Health Care Association of Michigan			•		
100.	Health Care Choices					•
101.	Health Care Excel (Kentucky and Indiana)					•
102.	Health Grades	✓				
103.	Health Improvement Collaborative of Greater Cincinnati	✓				
104.	Health Innovations			•		
105.	Health Policy Corporation of Iowa					•
106.	Health Services Coalition (Las Vegas)		•			
107.	Health Watch USA					•

TABLE 1 (*continued*)

	Sample Frame				
	Eligible for sample	No website	No evidence of public reporting	Subscriber only	No measures produced or repackaged (e.g., links to other websites)
108. HealthBridge			•		
109. HealthCare 21 Business Coalition	✓				
110. Healthcare Blue Book			•		
111. Healthcare Quality Coalition of Colorado					•
112. HealthInsight	✓				
113. HealthPartners	✓				
114. HealthWeb of Maine			•		
115. Healthy Memphis Common Table	✓				
116. Healthy York County Coalition			•		
117. Heartland Healthcare Coalition					•
118. Highmark			•		
119. High-Value Health Care Project			•		
120. HMO Consumer Guide for 2009	✓				
121. Hospital Quality Performance Report	✓				
122. Houston Business Group on Health					•
123. Hudson Health Plan			•		
124. Humana			•		
125. Humphreys Diabetes Center, Inc.			•		
126. Illinois Hospital Report Card	✓				
127. Illinois Foundation for Quality Health Care (IFMC-IL)					•
128. Independent Health				•	
129. Indiana Employers Quality Health Alliance	✓				
130. Indiana Health Information Exchange			•		
131. Indiana State Department of Health	✓				
132. Information & Quality Healthcare					•
133. Inland Northwest Health Services				•	
134. Institute for Clinical Systems Improvement			•		
135. Institute for Healthcare Improvement			•		
136. Institute for Healthcare Quality		•			
137. Integrated Healthcare Association	✓				
138. Iowa Department of Human Services	✓				
139. Iowa Foundation for Medical Care					•
140. Iowa Health Buyers Alliance	✓				
141. Iowa Healthcare Collaborative	✓				
142. J.D. Power and Associates	✓				
143. Jewish Federation of Metropolitan Chicago	✓				
144. Kansas City Quality Improvement Consortium	✓				

TABLE 1 (*continued*)

	Sample Frame				
	Eligible for sample	No website	No evidence of public reporting	Subscriber only	No measures produced or repackaged (e.g., links to other websites)
145. Kansas Department of Aging					•
146. Kansas Foundation for Medical Care, Inc.					•
147. Kansas Health Policy Authority (KHPA)					•
148. Kentucky Office of Health Policy	✓				
149. Kentucky Hospital Association	✓				
150. Labor/Management Health Care Coalition of the Upper Midwest			•		
151. Lancaster County Business Group on Health	✓				
152. Leapfrog Group	✓				
153. Long Term Care Consumer Guide	✓				
154. Louisiana Health Care Alliance					•
155. Louisiana Health Care Quality Forum	✓				
156. Louisiana Health Finder	✓				
157. Louisiana Hospital Inform	✓				
158. Maine Aligning Forces for Quality					•
159. Maine Health Management Coalition	✓				
160. Maine QI Partnership		•			
161. Maine Quality Forum	✓				
162. Managed Care in North Carolina		•			
163. Maryland Department of Health and Mental Hygiene	✓				
164. Maryland Health Care Commission	✓				
165. Massachusetts Department of Health & Human Services	✓				
166. Massachusetts Division of Health Care Finance and Policy	✓				
167. Massachusetts Health Care Quality and Cost Council (HCQCC)	✓				
168. Massachusetts Health Quality Partners	✓				
169. MD Nationwide				•	
170. MEDgle			•		
171. Medi-Cal Managed Care Consumer Guide	✓				
172. Medical Board of California			•		
173. Member of the Family	✓				
174. Memphis Business Group on Health					•
175. MetaStar, Inc.					•
176. Michigan Department of Community Health	✓				
177. Michigan Health & Safety Coalition	✓				
178. Michigan Health Information Alliance	✓				
179. Michigan Peer Review Organization	✓				
180. Michigan Purchasers Health Alliance	✓				
181. Mid-America Coalition on Health Care	✓				

TABLE 1 (*continued*)

	Sample Frame				
	Eligible for sample	No website	No evidence of public reporting	Subscriber only	No measures produced or repackaged (e.g., links to other websites)
182. Mid-Atlantic Business Group on Health	✓				
183. Middlesex Professional Services Foundation, Inc.			•		
184. Midwest Business Group on Health	✓				
185. Minnesota Community Measurement[e]	✓				
186. Minnesota Department of Health	✓				
187. Minnesota Health Care Value Exchange (HCVE)		•			
188. Minnesota Hospital Association[f]	✓				
189. Mississippi Report on Hospitals			•		
190. Missouri Consolidated Health Care Plan			•		
191. Missouri Department of Health and Senior Services			•		
192. Missouri Hospital Association				•	
193. Montana Association of Health Care Purchasers			•		
194. Montana Survey Inspection Results			•		
195. MVP Physician Quality Report	✓				
196. My Care Compare (GDAHC)[g]	✓				
197. My Doc Hub	✓				
198. My Health Care in Utah	✓				
199. My Health Care Options	✓				
200. My Health Experience	✓				
201. National Business Group on Health			•		
202. National Cardiovascular Data Registry				•	
203. NCQA Health Plan Report Card	✓				
204. NCQA Physician Recognition Program (Medical Home)	✓				
205. Nevada Compare Care	✓				
206. Nevada Health Care Association			•		
207. Nevada Health Care Coalition					•
208. Nevada Hospital Association	✓				
209. Nevada Partnership for Value-Driven Health Care	✓				
210. New Hampshire Health Cost	✓				
211. New Hampshire Purchasers Group on Health	✓				
212. New Jersey Department of Banking and Insurance	✓				
213. New Jersey Department of Health and Senior Services	✓				
214. New Jersey Health Care Quality Institute	✓				
215. New Mexico Health Policy Commission	✓				
216. New Mexico Hospital Association	✓				
217. New York Business Group on Health	✓				
218. New York Health Quality Initiative			•		

TABLE 1 (*continued*)

	Sample Frame				
	Eligible for sample	No website	No evidence of public reporting	Subscriber only	No measures produced or repackaged (e.g., links to other websites)
219. New York Quality Alliance			•		
220. New York State Department of Health[h]	✓				
221. New York State Health Accountability Foundation	✓				
222. New York State Insurance Department	✓				
223. New York State Value Exchange		•			
224. Niagara Health Quality Coalition	✓				
225. North Carolina Healthcare Information and Communications Alliance			•		
226. North Dakota Health Care Review, Inc.					•
227. North East Florida Regional Health Organization			•		
228. Northeast Health Care Quality Foundation	✓				
229. Norton Healthcare	✓				
230. Nursing Home Compliance History		•			
231. Office for Oregon Health Policy Research	✓				
232. Office of Personnel Management: Compare Health Plans	✓				
233. Ohio Hospital Compare	✓				
234. Ohio KePRO					•
235. Oklahoma Health Care Authority	✓				
236. Omaha Business Group		•			
237. Oregon Association of Hospitals and Health Systems	✓				
238. Oregon Coalition of Health Care Purchasers				•	
239. Oregon Department of Human Services	✓				
240. Oregon Division of Medical Assistance Programs	✓				
241. Oregon Health Care Quality Corporation	✓				
242. Oregon QI Partnership		•			
243. P2 Collaborative of Western New York, Inc.					•
244. Pacific Business Group on Health	✓				
245. Pacificare	✓				
246. Partnership for Health & Accountability	✓				
247. Partnership for New York City			•		
248. Patient Choice	✓				
249. Pennsylvania Department of Health	✓				
250. Pennsylvania Governor's Office of Health Care Reform (GOHCR)			•		
251. Pennsylvania Health Care Cost Containment Council (PHC4)	✓				
252. Pennsylvania Department of Public Welfare	✓				
253. Piedmont Health Coalition, Inc.			•		
254. Pittsburgh Business Group on Health	✓				

TABLE 1 (*continued*)

	Sample Frame				
	Eligible for sample	No website	No evidence of public reporting	Subscriber only	No measures produced or repackaged (e.g., links to other websites)
255. Pittsburgh Regional Health Initiative			•		
256. Premera's 2009 Quality Score Card	✓				
257. Provider Performance Profile	✓				
258. Puget Sound Health Alliance	✓				
259. Purchasing Corporation of Ohio		•			
260. Quality Check	✓				
261. Quality Counts (The Alliance)				•	
262. Quality Health Network		•			
263. Quality Insights of Pennsylvania					•
264. Quality Partners of Rhode Island	✓				
265. Quality Quest	✓				
266. RateMDs	✓				
267. Regional All Payer Healthcare Information Council (RAPHIC)			•		
268. Results Happen!			•		
269. Revolution Health	✓				
270. Rhode Island Business Group on Health			•		
271. Rhode Island Department of Health	✓				
272. Rhode Island Quality Institute (RIQI)			•		
273. Rochester Business Alliance			•		
274. Savannah Business Group on Health	✓				
275. Savannah Health Alliance					•
276. Scottsdale Healthcare	✓				
277. SEIU Nevada			•		
278. SeniorDECISION	✓				
279. Sioux Empire Health Care Coalition		•			
280. SNAP for Seniors	✓				
281. Society for Assisted Reproductive Technology (SART)[i]	✓				
282. South Carolina Business Coalition on Health	✓				
283. South Central PA	✓				
284. South Dakota Foundation for Medical Care					•
285. St. Louis Area Business Health Coalition					•
286. Taconic Health Information Network & Community (THINC) RHIO, Inc.			•		
287. Tennessee Hospital Quality Comparison	✓				
288. Texas Business Group on Health					•
289. Texas Coalition for Value Driven Care		•			
290. Texas Department of Aging & Disability Services	✓				
291. Texas Health Care Information Council	✓				

TABLE 1 (*continued*)

	Sample Frame				
	Eligible for sample	No website	No evidence of public reporting	Subscriber only	No measures produced or repackaged (e.g., links to other websites)
292. Texas Office of Public Insurance Counsel	✓				
293. Texas Tech Center for Health Innovation, Education and Research			•		
294. The Federation of State Medical Boards (FSMB)				•	
295. The Gilbert Guide			•		
296. TRICARE			•		
297. Tri-State Business Group on Health (Indiana)					•
298. Tri-State Health Care Coalition			•		
299. U.S. News & World Report[j]	✓				
300. UCompareHealthCare	✓				
301. United Health: Find A Physician	✓				
302. University of California at San Francisco Institute for Health Policy			•		
303. Utah Association of Health Underwriters			•		
304. Utah CheckPoint	✓				
305. Utah Partnership for Value-Driven Health Care			•		
306. Vermont Blueprint for Health (Blueprint)			•		
307. Vermont Department of Banking, Insurance, Securities, and Health Care Administration	✓				
308. VIMO: Search and Rate a Doctor	✓				
309. Virginia Health Provider Search			•		
310. Virginia Business Coalition on Health	✓				
311. Virginia Department of Health Professions			•		
312. Virginia Department of Medical Assistance Services	✓				
313. Virginia Health Care Alliance		•			
314. Virginia Health Information	✓				
315. Vitals	✓				
316. Washington State QI Partnership		•			
317. WebMD Physician Directory			•		
318. West Virginia Health Information Network			•		
319. Western North Carolina Health Coalition			•		
320. Who Says		•			
321. Why Not the Best?	✓				
322. Wichita Business Coalition on Health Care	✓				
323. Wisconsin Collaborative for Healthcare Quality, Inc.	✓				
324. Wisconsin Department of Employee Trust Funds	✓				
325. Wisconsin Department of Health Services					•
326. Wisconsin Health Information Organization			•		
327. Wisconsin Healthcare Value Exchange, Madison, Wis.		•			

TABLE 1 (*continued*)

	Sample Frame				
	Eligible for sample	No website	No evidence of public reporting	Subscriber only	No measures produced or repackaged (e.g., links to other websites)
328. Wisconsin Hospital Association[k]	✓				
329. Wisconsin Medical Society			•		
330. Wisconsin Office of the Commissioner of Insurance	✓				
331. WisconsinRx			•		
332. Wyoming Business Coalition on Health	✓				

[a] Includes CalHospitalCompare and CalQualityCompare.
[b] Reports will not be published after 2008.
[c] Includes: Hospital Compare, Home Health Compare, Nursing Home Compare, and Dialysis Compare.
[d] By subscription only. However, Consumer's Checkbook is working with three programs to incorporate patient rating of health plans. These three programs (Healthy Memphis, Colorado Business Group on Health, and Kansas City Quality Improvement Consortium) are eligible for our sample.
[e] Includes Minnesota Health Scores and the D5.
[f] Includes Minnesota Hospital Price Check and Minnesota Hospital Quality Report.
[g] Additional report available from My Care Compare sponsor GDAHC at http://www.afh.org/doc/FINAL%20EV8%20CONSUMERS%20GUIDE%2010-30-08.pdf
[h] Includes: Managed Care Regional Consumer Guides, Managed Care Plan Performance Report, Hospital Profiles, Nursing Home Profiles, and Physician Profiles.
[i] SART website advises consumers against using the data for comparison purposes.
[j] Includes: Best Hospitals, Best Nursing Homes, and Best Health Plans.
[k] Includes Wisconsin CheckPoint and Wisconsin PricePoint.

TABLE 2

PROGRAMS ELIGIBLE AND SELECTED FOR SAMPLE (N=162)

		Key Informant		Geographic Level					Adoption			Other Characteristics					
	Program Name	Recommended[a]		National	State	County	Community	Other	First report prior to 2005	First report 2005 and later		AF4Q	BQI	CVE	NASHP	NAHDO	NRHI
	TOTAL	85		30	106	9	4	13	27	135		13	4	16	2	18	16
1	AHRQ Healthcare Cost & Utilization Project (HCUP)			✓						✓							
2	***Alliance for Health (Michigan)***	✓				✓				✓		✓		✓			
3	American Heart Association				✓					✓							
4	***Better Health Greater Cleveland***	✓				✓				✓		✓					
5	***Bridges to Excellence***	✓			✓					✓							
6	***Buyers Health Care Action Group***				✓					✓							
7	***California Advocates for Nursing Home Reform Guide***	✓			✓					✓							
8	***California Office of Statewide Health Planning and Development***	✓			✓				✓							✓	
9	***California Cooperative Healthcare Reporting Initiative***	✓			✓				✓				✓				✓
10	California Department of Public Health				✓					✓							
11	***California HealthCare Foundation***	✓			✓				✓								
12	***California Office of Patient Advocate***	✓			✓					✓							
13	***CMS Medicare Compare***	✓		✓						✓							
14	CiteHealth			✓						✓							
15	***Colorado Business Group on Health***	✓			✓				✓					✓			
16	Colorado Health Institute				✓					✓							
17	***Colorado Hospital Report Card***	✓			✓					✓							

Table 2.1

TABLE 2 (*continued*)

	Program Name	Key Informant	Geographic Level					Adoption		Other Characteristics					
		Recommended[a]	National	State	County	Community	Other	First report prior to 2005	First report 2005 and later	AF4Q	BQI	CVE	NASHP	NAHDO	NRHI
18	***Community Health Alliance of Humboldt-Del Norte***	✔					✔		✔	✔					
19	Connecticut Hospital Association	✓		✓					✓						
20	Connecticut Insurance Department			✓					✓						
21	Consumer Connection	✓	✓						✓						
22	Dallas-Fort Worth Business Group on Health				✓				✓						
23	***Dartmouth Atlas of Health Care***		✔					✔							
24	***Dr. Score***	✔	✔						✔						
25	Dr. Scorecard	✓	✓						✓						
26	Employers' Coalition on Health (Rockford)				✓				✓						
27	Employers Health (Ohio)		✓						✓						
28	Employers' Health Coalition (Arkansas)			✓					✓						
29	Florida Health Care Coalition (FHCC)			✓					✓						
30	Florida Health Finder	✓		✓					✓					✓	
31	***Florida Nursing Home Guide***	✔		✔					✔						
32	Focus on Hospitals			✓					✓						
33	Foundation for Health Care Quality			✓					✓						
34	FrontPath Health Coalition				✓				✓						
35	Georgia Hospital Association			✓					✓						
36	***Greater Boston Quality Coalition (GBQC)***	✔		✔					✔	✔					
37	***Harvard Pilgrim Health Care/Harvard Pilgrim Health Care of New England***	✔					✔		✔						
38	***Health Grades***	✔	✔						✔						

Table 2.2

TABLE 2 (*continued*)

	Program Name	Key Informant	Geographic Level					Adoption		Other Characteristics					
		Recommended[a]	National	State	County	Community	Other	First report prior to 2005	First report 2005 and later	AF4Q	BQI	CVE	NASHP	NAHDO	NRHI
39	***Health Improvement Collaborative of Greater Cincinnati***	✔					✔	✔		✔		✔			✔
40	HealthCare 21 Business Coalition			✓					✓						
41	***HealthInsight***	✔	✔						✔						✔
42	***HealthPartners***	✔		✔					✔						
43	***Healthy Memphis Common Table***	✔				✔			✔	✔		✔			✔
44	HMO Consumer Guide for 2009			✓					✓						
45	Hospital Quality Performance Report			✓				✓							
46	***Illinois Hospital Report Card***	✔		✔					✔					✔	
47	Indiana Employers Quality Health Alliance			✓					✓						
48	Indiana State Department of Health	✓		✓					✓						
49	***Integrated Healthcare Association***	✔		✔					✔						✔
50	Iowa Department of Human Services			✓					✓						
51	Iowa Health Buyer's Alliance			✓					✓						
52	***Iowa Healthcare Collaborative***	✔		✔				✔							✔
53	J.D. Power and Associates			✓					✓						
54	Jewish Federation of Metropolitan Chicago					✓			✓						
55	***Kansas City Quality Improvement Consortium***	✔				✔			✔	✔		✔			
56	Kentucky Hospital Association			✓					✓						
57	Kentucky Office of Health Policy	✓		✓					✓						
58	Lancaster County Business Group on Health				✓				✓						
59	***Leapfrog Group***	✔	✔						✔						

Table 2.3

TABLE 2 (*continued*)

	Program Name	Key Informant	Geographic Level					Adoption		Other Characteristics					
		Recommended[a]	National	State	County	Community	Other	First report prior to 2005	First report 2005 and later	AF4Q	BQI	CVE	NASHP	NAHDO	NRHI
60	***Long Term Care Consumer Guide***	✔		✔					✔						
61	***Louisiana Health Care Quality Forum***	✔		✔					✔			✔			✔
62	Louisiana Health Finder			✓					✓						
63	Louisiana Hospital Inform			✓					✓						
64	***Maine Health Management Coalition***	✔		✔					✔			✔			✔
65	***Maine Quality Forum***	✔		✔					✔					✔	
66	Maryland Department of Health and Mental Hygiene			✓				✓							
67	***Maryland Health Care Commission***	✔		✔					✔					✔	
68	Massachusetts Department of Health & Human Services	✓		✓					✓					✓	
69	Massachusetts Division of Health Care Finance and Policy			✓					✓						
70	***Massachusetts Health Care Quality and Cost Council (HCQCC)***	✔		✔					✔				✔		
71	***Massachusetts Health Quality Partners***	✔		✔					✔		✔	✔			✔
72	Medi-Cal Managed Care Consumer Guide			✓					✓						
73	Member of the Family		✓						✓						
74	Michigan Department of Community Health			✓					✓						
75	***Michigan Health & Safety Coalition***	✔		✔					✔						
76	Michigan Health Information Alliance			✓					✓			✓			
77	Michigan Peer Review Organization			✓					✓						
78	Michigan Purchasers Health Alliance			✓					✓						
79	Mid-America Coalition on Health Care						✓		✓						

TABLE 2 (*continued*)

	Program Name	Key Informant	Geographic Level					Adoption		Other Characteristics					
		Recommended[a]	National	State	County	Community	Other	First report prior to 2005	First report 2005 and later	AF4Q	BQI	CVE	NASHP	NAHDO	NRHI
80	Mid-Atlantic Business Group on Health						✓		✓						
81	Midwest Business Group on Health						✓		✓						
82	***Minnesota Community Measurement***	✓		✓				✓		✓	✓				✓
83	Minnesota Department of Health			✓				✓							
84	Minnesota Hospital Association			✓					✓						
85	MVP Physician Quality Reports	✓	✓						✓						
86	***My Care Compare (GDAHC)***	✓			✓				✓	✓		✓			✓
87	My Doc Hub	✓	✓						✓						
88	***My Health Care in Utah***	✓		✓				✓						✓	
89	My Health Care Options			✓					✓						
90	My Health Experience	✓	✓						✓						
91	NCQA Health Plan Report Card		✓					✓							
92	***NCQA Physician Recognition Program (Medical Home)***	✓	✓						✓						
93	Nevada Compare Care	✓		✓					✓					✓	
94	Nevada Hospital Association			✓					✓						
95	Nevada Partnership for Value-Driven Health Care			✓					✓			✓			
96	***New Hampshire Health Cost***	✓		✓					✓					✓	
97	***New Hampshire Purchasers Group on Health***	✓		✓					✓					✓	
98	New Jersey Department of Banking and Insurance			✓					✓						
99	***New Jersey Department of Health and Senior Services***	✓		✓				✓						✓	
100	New Jersey Health Care Quality Institute			✓					✓						

TABLE 2 (*continued*)

	Program Name	Key Informant	Geographic Level					Adoption		Other Characteristics					
		Recommended[a]	National	State	County	Community	Other	First report prior to 2005	First report 2005 and later	AF4Q	BQI	CVE	NASHP	NAHDO	NRHI
101	New Mexico Health Policy Commission			✓				✓							
102	***New Mexico Hospital Association***	✓		✓					✓						
103	New York Business Group on Health			✓					✓						
104	***New York State Department of Health***	✓		✓				✓						✓	
105	New York State Health Accountability Foundation			✓					✓						
106	New York State Insurance Department			✓					✓						
107	Niagara Health Quality Coalition			✓					✓						
108	Northeast Health Care Quality Foundation						✓		✓						
109	***Norton Healthcare***	✓					✓	✓							
110	Office for Oregon Health Policy Research			✓					✓						
111	Office of Personnel Management: Compare Health Plans		✓						✓						
112	***Ohio Hospital Compare***	✓		✓					✓				✓		
113	***Oklahoma Health Care Authority***	✓		✓					✓						
114	Oregon Association of Hospitals and Health Systems			✓					✓						
115	***Oregon Department of Human Services***	✓		✓				✓						✓	
116	Oregon Division of Medical Assistance Programs			✓				✓							
117	***Oregon Health Care Quality Corporation***	✓		✓					✓	✓		✓			✓
118	***Pacificare***			✓					✓						
119	***Pacific Business Group on Health***	✓					✓		✓			✓			
120	Partnership for Health & Accountability			✓					✓						
121	Patient Choice			✓				✓							

TABLE 2 (*continued*)

	Program Name	Key Informant	Geographic Level					Adoption		Other Characteristics					
		Recommended[a]	National	State	County	Community	Other	First report prior to 2005	First report 2005 and later	AF4Q	BQI	CVE	NASHP	NAHDO	NRHI
122	***Pennsylvania Department of Health***	✔		✔					✔						
123	Pennsylvania Department of Public Welfare			✓					✓						
124	***Pennsylvania Health Care Cost Containment Council (PHC4)***	✔		✔				✔						✔	
125	***Pittsburgh Business Group on Health***						✔		✔						
126	***Premera's 2009 Quality Score Card***	✔		✔				✔							
127	Provider Performance Profile						✓		✓						
128	***Puget Sound Health Alliance***	✔			✔				✔	✔		✔			✔
129	***Quality Check***		✔						✔						
130	Quality Partners of Rhode Island			✓				✓							
131	***Quality Quest***	✔		✔					✔						✔
132	RateMDs	✓	✓						✓						
133	Revolution Health	✓	✓						✓						
134	***Rhode Island Department of Health***	✔		✔				✔						✔	
135	***Savannah Business Group on Health***	✔			✔				✔						
136	Scottsdale Healthcare						✓		✓						
137	SeniorDECISION		✓						✓						
138	SNAP for Seniors		✓						✓						
139	Society for Assisted Reproductive Technology (SART)	✓	✓						✓						
140	South Carolina Business Coalition on Health			✓					✓						
141	***South Central PA***	✔					✔		✔	✔		✔			✔
142	Tennessee Hospital Quality Comparison			✓					✓						
143	***Texas Department of Aging & Disability Services***	✔		✔					✔						

TABLE 2 (*continued*)

	Program Name	Key Informant	Geographic Level					Adoption		Other Characteristics					
		Recommended[a]	National	State	County	Community	Other	First report prior to 2005	First report 2005 and later	AF4Q	BQI	CVE	NASHP	NAHDO	NRHI
144	***Texas Health Care Information Council***	✓		✓				✓						✓	
145	Texas Office of Public Insurance Counsel			✓				✓							
146	***U.S. News & World Report***	✓	✓						✓						
147	***UCompareHealthCare***	✓	✓						✓						
148	***United Health: Find a Physician***	✓	✓						✓						
149	Utah CheckPoint	✓		✓					✓						
150	***Vermont Department of Banking, Insurance, Securities, and Health Care Administration***	✓		✓					✓					✓	
151	VIMO: Search and Rate a Doctor	✓	✓						✓						
152	Virginia Business Coalition on Health			✓					✓						
153	Virginia Department of Medical Assistance Services			✓					✓						
154	***Virginia Health Information***	✓		✓					✓					✓	
155	Vitals	✓	✓						✓						
156	Why Not the Best?	✓	✓					✓							
157	***Wichita Business Coalition on Health Care***					✓			✓						
158	***Wisconsin Collaborative for Healthcare Quality, Inc.***	✓		✓					✓	✓	✓	✓			✓
159	Wisconsin Department of Employee Trust Funds			✓					✓						
160	***Wisconsin Hospital Association***	✓		✓					✓						
161	Wisconsin Office of the Commissioner of Insurance	✓		✓					✓						
162	Wyoming Business Coalition on Health			✓					✓						

[a] Includes programs from the Ambulatory Care Quality Alliance's environmental scan and NRHI members list.

Programs in bold italics were recommended for inclusion in the final sample.

TABLE 2 (*continued*)

AF4Q = Aligning Forces for Quality.
BQI = Better Quality Information for Medicare Beneficiaries Pilot Project.
CVE = Charter Value Exchanges.
NASHP = National Academy for State Health Policy partner.
NAHDO = National Association of Health Data Organizations.
NRHI = Network for Regional Healthcare Improvement.

TABLE 3

KEY INFORMANT RECOMMENDED PROGRAMS

Program[a]	A	B[b]	C	D	E[c]	F	AQA[d]	NRHI[e]
Alliance for Health (Michigan)							✓	
Better Health Greater Cleveland		✓		✓	✓		✓	
Bridges to Excellence					✓		✓	
California Advocates for Nursing Home Reform Guide		✓						
California Cooperative Healthcare Reporting Initiative					✓		✓	✓
California HealthCare Foundation		✓			✓			
California Office of Patient Advocate		✓					✓	
CMS Medicare Compare		✓			✓			
Colorado Business Group on Health		✓		✓			✓	
Colorado Hospital Association/Report Card						✓	✓	
Community Health Alliance of Humboldt-Del Norte		✓			✓		✓	
Connecticut Hospital Association							✓	
Consumer Connection							✓	
Doctor Scorecard							✓	
Dr. Score							✓	
Florida Health Finder						✓	✓	
Florida Nursing Home Guide (Agency for Health Care Administration)		✓					✓	
Greater Boston Quality Coalition (GBQC)							✓	
Harvard Pilgrim Health Care/Harvard Pilgrim Health Care of New England					✓			
Health Grades	✓						✓	
Health Improvement Collaborative of Greater Cincinnati					✓		✓	✓
HealthInsight							✓	✓
HealthPartners							✓	
Healthy Memphis Common Table		✓		✓	✓		✓	✓
Illinois Hospital Report Card							✓	
Indiana State Department of Health							✓	
Integrated Healthcare Association					✓		✓	✓
Iowa Healthcare Collaborative								✓
Kansas City Quality Improvement Consortium		✓			✓		✓	
Kentucky Office of Health Policy							✓	
Leapfrog					✓		✓	
Long Term Care Consumer Guide (Ohio Department of Aging)		✓						
Louisiana Health Care Quality Forum								✓
Louisiana Health Care Review (eQ Health Solutions)						NR		
Maine Health Management Coalition		✓					✓	✓
Maine Quality Forum						✓	✓	
Maryland Health Care Commission		✓					✓	

Table 3.1

Program[a]	A	B[b]	C	D	E[c]	F	AQA[d]	NRHI[e]
Massachusetts Department of Health & Human Services		✓					✓	
Massachusetts Health Care Quality and Cost Council (HCQCC)						✓		
Massachusetts Health Quality Partners		✓			✓			✓
Michigan Health & Safety Coalition				✓				
Minnesota Community Measurement		✓		✓	✓		✓	✓
MVP Physician Quality Report							✓	
My Care Compare (GDAHC)		✓			✓		✓	✓
My Doc Hub							✓	
My Health Care in Utah							✓	
My Health Experience							✓	
Nevada Compare Care							✓	
New Hampshire Health Cost						✓	✓	
New Hampshire Purchasers Group on Health							✓	
New Jersey Department of Health and Senior Services							✓	
New Mexico Hospital Association						✓		
New York State Department of Health		✓					✓	
Norton Healthcare					✓	✓		
Ohio Hospital Compare							✓	
Oklahoma Health Care Authority		✓						
Oregon Department of Human Services							✓	
Oregon Health Care Quality Corporation		✓	✓		✓		✓	✓
Pacific Business Group on Health	✓			✓	✓	✓	✓	
Pennsylvania Health Care Cost Containment Council (PHC4)		✓	✓		✓	✓	✓	
Pennsylvania Department of Health		✓						
Premera's 2009 Quality Score Card		✓						
Puget Sound Health Alliance		✓		✓	✓		✓	✓
Quality Quest								✓
RateMDs							✓	
Revolution Health							✓	
Rhode Island Department of Health							✓	
Savannah Business Group on Health					✓			
Society for Assisted Reproductive Technology (SART)							✓	
South Central Pennsylvania		✓		✓			✓	✓
Texas Department of Aging & Disability Services		✓						
Texas Health Care Information Council							✓	
UCompareHealthCare		✓					✓	
U.S. News & World Report		✓						
United Health Find a Physician							✓	
Utah CheckPoint							✓	
Vermont Department of Banking, Insurance, Securities, and Health Care Administration							✓	

Table 3.2

Program[a]	A	B[b]	C	D	E[c]	F	AQA[d]	NRHI[e]
VIMO: Search and Rate a Doctor							✓	
Virginia Health Information		✓				✓	✓	
Vitals							✓	
Why Not the Best?							✓	
Wisconsin Collaborative for Healthcare Quality, Inc.		✓		✓	✓		✓	✓
Wisconsin Office of the Commissioner of Insurance							✓	
Wisconsin Hospital Association				✓			✓	

NR = actively not recommended.

NRHI = Network for Regional Healthcare Improvement.

AQA = Ambulatory Care Quality Alliance.

[a] Several programs recommended by key informants show no evidence of public reporting. This table excludes such programs. Recommended programs that fall into this category include: AGA Digestive Health Outcomes Registry, Albuquerque Coalition for Healthcare Quality, American Academy of Family Physicians, American Board of Internal Medicine, American Board of Medical Specialties. American College of Physicians, America's Top Docs, Angie's List, Blue Shield of California, Book of Doctors, Central Indiana Alliance for Health (CIA4H), California Office of Statewide Health Planning and Development, California Quality Collaborative, ChoiceTrust, Connecticut Hospital Performance Comparisons, Consumer-Purchaser Disclosure Project, Consumer's Checkbook, DocInfo, Doctor Finder, Healthcare Blue Book, HealthWeb of Maine, Highmark, High-Value Health Care Project, Hudson Health Plan, Humana, Independent Health, Indiana Health Information Exchange, Institute for Clinical Systems Improvement, Finger Lakes Health Systems Agency, Maine Aligning Forces, Managed Care in North Carolina , MD Nationwide, MEDgle, Medical Board of California, Mississippi Report on Hospitals (2005), Missouri Department of Health and Senior Services, Missouri Hospital Association, Montana Survey Inspection Results, National Cardiovascular Data Registry, NCQA Recognized Physician Directory, New York Quality Alliance, P2 Collaborative of Western New York, Pennsylvania Governor's Office of Health Care Reform (GOHCR), Pittsburgh Regional Health Initiative, Quality Counts (The Alliance), Regional All Payer Healthcare Information Council (RAPHIC), Rhode Island Quality Institute, Texas Business Group on Health, The Federation of State Medical Boards (FSMB), Utah Partnership for Value-Driven Health Care, Vermont Blueprint for Health, Virginia Department of Health Professions , Virginia Health Provider Search, WebMD, Who Says, Wisconsin Department of Health Services, and Wisconsin Healthcare Value Exchange.

[b] However, we included programs that received an A or B grade on Carol Cronin's Informed Patient Institute website, as recommended by the key informant.

[c] The key informant recommended all of the Aligning Forces for Quality programs but singled out several on the list, which we marked as R. She also recommended all of the NASHP partner programs but strongly recommended several of them, which we marked as R.

[d] Programs included in AQA's environmental scan.

[e] Members of NRHI.

Table 4.1

TABLE 4

FINAL SAMPLE OF PROGRAMS (N=72)

		Key Informant	Geographic Level					Adoption		Other Characteristics					
	Program Name	Recommended[a]	National	State	County	Community	Other	First report before 2005	First report 2005 or later	AF4Q	BQI	CVE	NASHP	NAHDO	NRHI
	TOTAL	66	11	46	5	3	7	17	55	13	4	14	2	15	16
1	Alliance for Health (Michigan)	✓			✓				✓	✓		✓			
2	Better Health Greater Cleveland	✓			✓				✓	✓					
3	Bridges to Excellence	✓		✓					✓						
4	Buyers Health Care Action Group			✓					✓						
5	California Advocates for Nursing Home Reform Guide	✓		✓					✓						
6	California Office of Statewide Health Planning and Development	✓		✓				✓						✓	
7	California Cooperative Healthcare Reporting Initiative	✓		✓				✓			✓				✓
8	California HealthCare Foundation	✓		✓				✓							
9	California Office of Patient Advocate	✓		✓					✓						
10	CMS Medicare Compare	✓	✓						✓						
11	Colorado Business Group on Health	✓		✓				✓				✓			
12	Colorado Hospital Report Card	✓		✓					✓						
13	Community Health Alliance of Humboldt-Del Norte	✓					✓		✓	✓					
14	Dartmouth Atlas of Health Care		✓					✓							
15	Dr. Score	✓	✓						✓						
16	Florida Nursing Home Guide	✓		✓					✓						
17	Greater Boston Quality Coalition (GBQC)	✓		✓					✓	✓					

TABLE 4 (*continued*)

	Program Name	Key Informant	Geographic Level					Adoption		Other Characteristics					
		Recommended[a]	National	State	County	Community	Other	First report before 2005	First report 2005 or later	AF4Q	BQI	CVE	NASHP	NAHDO	NRHI
18	Harvard Pilgrim Health Care/Harvard Pilgrim Health Care of New England	✓					✓		✓						
19	Health Grades	✓	✓						✓						
20	Health Improvement Collaborative of Greater Cincinnati	✓					✓	✓		✓		✓			✓
21	HealthInsight	✓	✓						✓						✓
22	HealthPartners	✓		✓					✓						
23	Healthy Memphis Common Table	✓				✓			✓	✓		✓			✓
24	Illinois Hospital Report Card	✓		✓					✓					✓	
25	Integrated Healthcare Association	✓		✓					✓						✓
26	Iowa Healthcare Collaborative	✓		✓				✓							✓
27	Kansas City Quality Improvement Consortium	✓				✓			✓	✓		✓			
28	Leapfrog Group	✓	✓						✓						
29	Long Term Care Consumer Guide	✓		✓					✓						
30	Louisiana Health Care Quality Forum	✓		✓					✓			✓			✓
31	Maine Health Management Coalition	✓		✓					✓			✓			✓
32	Maine Quality Forum	✓		✓					✓					✓	
33	Maryland Health Care Commission	✓		✓					✓					✓	
34	Massachusetts Health Care Quality and Cost Council (HCQCC)	✓		✓					✓				✓		
35	Massachusetts Health Quality Partners	✓		✓					✓		✓	✓			✓
36	Michigan Health & Safety Coalition	✓		✓					✓						
37	Minnesota Community Measurement	✓		✓				✓		✓	✓				✓
38	My Care Compare (GDAHC)	✓			✓				✓	✓		✓			✓

Table 2.2

TABLE 4 (*continued*)

	Program Name	Key Informant	Geographic Level					Adoption		Other Characteristics					
		Recommended[a]	National	State	County	Community	Other	First report before 2005	First report 2005 or later	AF4Q	BQI	CVE	NASHP	NAHDO	NRHI
39	My Health Care in Utah	✓		✓				✓						✓	
40	NCQA Physician Recognition Program (Medical Home)	✓	✓						✓						
41	New Hampshire Health Cost	✓		✓					✓					✓	
42	New Hampshire Purchasers Group on Health	✓		✓					✓					✓	
43	New Jersey Department of Health and Senior Services	✓		✓				✓						✓	
44	New Mexico Hospital Association	✓		✓					✓						
45	New York State Department of Health	✓		✓				✓						✓	
46	Norton Healthcare	✓					✓	✓							
47	Ohio Hospital Compare	✓		✓					✓				✓		
48	Oklahoma Health Care Authority	✓		✓					✓						
49	Oregon Department of Human Services	✓		✓				✓						✓	
50	Oregon Health Care Quality Corporation	✓		✓					✓	✓		✓			✓
51	Pacificare			✓					✓						
52	Pacific Business Group on Health	✓					✓		✓			✓			
53	Pennsylvania Department of Health	✓		✓					✓						
54	Pennsylvania Health Care Cost Containment Council (PHC4)	✓		✓				✓						✓	
55	Pittsburgh Business Group on Health						✓		✓						
56	Premera's 2009 Quality Score Card	✓		✓				✓							
57	Puget Sound Health Alliance	✓			✓				✓	✓		✓			✓
58	Quality Check		✓						✓						
59	Quality Quest	✓		✓					✓						✓
60	Rhode Island Department of Health	✓		✓				✓						✓	

TABLE 4 (*continued*)

	Program Name	Key Informant	Geographic Level					Adoption		Other Characteristics					
		Recommended[a]	National	State	County	Community	Other	First report before 2005	First report 2005 or later	AF4Q	BQI	CVE	NASHP	NAHDO	NRHI
61	Savannah Business Group on Health	✓			✓				✓						
62	South Central PA	✓					✓		✓	✓		✓			✓
63	Texas Department of Aging & Disability Services	✓		✓					✓						
64	Texas Health Care Information Council	✓		✓				✓						✓	
65	U.S. News & World Report	✓	✓						✓						
66	UCompareHealthCare	✓	✓						✓						
67	United Health: Find a Physician	✓	✓						✓						
68	Vermont Department of Banking, Insurance, Securities, and Health Care Administration	✓		✓					✓					✓	
69	Virginia Health Information	✓		✓					✓					✓	
70	Wichita Business Coalition on Health Care					✓			✓						
71	Wisconsin Collaborative for Healthcare Quality, Inc.	✓		✓					✓	✓	✓	✓			✓
72	Wisconsin Hospital Association	✓		✓					✓						

[a] Includes programs from the Ambulatory Care Quality Alliance's environmental scan and NRHI members list.

AF4Q = Aligning Forces for Quality.
BQI = Better Quality Information for Medicare Beneficiaries Pilot Project.
CVE = Charter Value Exchanges.
NASHP = National Academy for State Health Policy partner.
NAHDO = National Association of Health Data Organizations.
NRHI = Network for Regional Healthcare Improvement.

APPENDIX B. CODEBOOK

NQF ENVIRONMENTAL SCAN OF PUBLIC REPORTING PROGRAM AND ANALYSIS

CODEBOOK

PRODUCED BY MATHEMATICA POLICY RESEARCH

AUGUST 23, 2010

Table of Contents:

Database element	**Contact Address**
Description	The physical address of the public reporting program's primary contact person.
Database level	Program
Allow multiple values	No

Value	[Text field]

Database element	**Contact Email**
Description	The email address of the public reporting program's primary contact person.
Database level	Program
Allow multiple values	No

Value	[Text field]

Database element	**Contact Name**
Description	The public reporting program's primary contact person.
Database level	Program
Allow multiple values	No

Value	[Text field]

Database element	**Contact Phone**
Description	The phone number of the public reporting program's primary contact person.
Database level	Program
Allow multiple values	No

Value	[10-digit phone number]

Database element	**Contact Title**
Description	The title of the public reporting program's primary contact person.
Database level	Program
Allow multiple values	No

Value	[Text field]

Database element	**Early Adopter**
Description	Program has reports dating prior to 2005.
Database level	Program
Allow multiple values	No
Values	
Yes	
No	

Database element	**Evidence of Public Reporting**
Description	Program has public report; report does not have to be available through the program's website. Reports compare measures of provider performance or track indicators of population health and are accessible to target audiences that may include consumers, providers, and other individuals or organizations. Excluded are reports that health plans make available only to their members, reports produced by organizations only for internal purposes, and reports made available only for a fee.
Database level	Program
Allow multiple values	No
Values	
Yes	
No	

Database element	**Include in Final Sample**
Description	Program included in the final analytic sample.
Database level	Program
Allow multiple values	No
Values	
Yes	
No	

Database element	**Key Informant Recommended**
Description	Program recommended by a key informant as an important program to include in the analytic sample.
Database level	Program
Allow multiple values	No
Values	
Yes	
No	

Database element	**Program Description**
Description	Brief description of the public reporting program.
Database level	Program
Allow multiple values	No

Value	[Text field]

Database element	**Program Name**
Description	The formal name of the public reporting program.
Database level	Program
Allow multiple values	No

Value	[Text field]

Database element	**Program Notes**
Description	General notes about the program.
Database level	Program
Allow multiple values	No

Value	[Text field]

Database element	**Program Website**
Description	The web address (URL) of the public reporting program.
Database level	Program
Allow multiple values	No

Value	[Text field]

Database element	**Sample Eligibility**
Description	At least one report produced as of January 1, 2008.
Database level	Program
Allow multiple values	No
Values	
Yes	
No	

Database element	**Sponsor**
Description	Sponsor/organization supporting or providing resources for the public reporting.
Database level	Program
Allow multiple values	No

Value	[Text field]

Database element	**Audience**
Description	The set of users that the report targets.
Database level	Program
Allow multiple values	Yes
Values	
Consumers	Patient, employee, or general public who try to access and use health services
Payers	Public (Medicare, Medicaid, S-CHIP, state) or private (commercial) insurer who reimburses providers for care
Policymakers and/or regulators	Federal, state, or local policymakers, including insurance regulators who oversee and influence health system and practice
Providers and management	Both institutional providers of health care services (health plans, HMOs, hospitals, nursing homes) and clinicians (physicians, nurse practitioners, nurses, physician assistants)
Purchasers and/or benefit design managers	Entities, including employers and states, that contract with health plans to provide health care benefits and services
Not specified	Audience not specified

Database element	Availability of Information
Description	Describes whether reports are available to the general public, subscribers, or a combination of both.
Database level	Program
Allow multiple values	No
Values	
General public	Reports are available to the public at no cost
General public and subscribers	Limited data are freely available to the public; additional data are limited to subscribers (health plan members, subscribers)
Subscribers only	Data are available only to subscribers (to health plan members or via subscription); final sample would not include these data

Database element	**Geographic Area (Program)**
Description	Level of health care delivery or health status addressed at the program level.
Database level	Program
Allow multiple values	Yes
Values	
National	Program is reported at the national level; denominator includes individuals across a single national entity (for example, United States)
State	Program is reported at a state level for one or more states
County	Program is reported at a county level for one or more counties within a state
Community	Program is reported at a community level; community is defined as one or more cities or a portion thereof (such as a neighborhood) within a state
Other region (MSA, HSA, HRR)	Program is reported at a geographic level—not national, state, county, or community (for example, Northeast, HSA, HRR)

Database element	**Payer Type**
Description	Indicates whether a program applies to persons covered by a public or private payer. (For programs that use "all payer" language, select Commercial, Medicare, and Medicaid.)
Database level	Program
Allow multiple values	Yes
Values	
Commercial	Indicates whether a program applies only to persons covered by commercial insurance (individual or multiple)
Medicare	Indicates whether a program applies only to persons covered by Medicare
Medicaid	Indicates whether a program applies only to persons covered by Medicaid
Other payer	Indicates whether a program applies only to persons covered by other insurance sources (e.g., state employees, VA, TRICARE)

Database element	**Publication Mode**
Description	Identifies whether reports are available on a website or in an electronic or paper format.
Database level	Program
Allow multiple values	Yes
Values	
Electronic - downloadable	Reported information can be downloaded from a website in a common file format (e.g., PDF, .doc, .xls, CSV) for storage or printing
Electronic - web only	Reported information is viewable only in a web browser. The web page may be printed, but a file cannot be downloaded
Print	Reported information is available only in hard copy
Combination	Multiple report formats are available, including on a website, in a PDF format, or in a hard copy

Database element	**Type of Organization**
Description	Type of organization that is publicly reporting (publishing) the report.
Database level	Program
Allow multiple values	Yes
Values	
Federal government	Federal agency (e.g., CMS, TRICARE)
State government	State agency (e.g., Department of Health)
Commercial health plan	HMO, PPO, or other health insurer
Employer business group	Employer coalition (may include other stakeholders)
Specialty society	State or local chapter of a physician group
Hospital association	State or local chapter of a hospital association
Provider group	One or more providers within the community/region
Multi-stakeholders	Coalition of group of organizations or entities
Consumer/advocacy group	Organizations with primary mission to promote and protect the interests of consumers
Academic institution	Educational institution that grants degrees and whose faculty members conduct research; often identified by .edu at the end of the institution's web address
Other organization	Other organization performing the public reporting

Database element	**Composite Measure**
Description	A measure that is the combination of two or more separate measures.
Database level	Program/measure
Allow multiple values	No
Values	
Yes	
No	

Database element	**Measure Denominator**
Description	The lower part of a fraction used to calculate a rate, proportion, or ratio. A statement that depicts the primary or overall population of interest that the measure is evaluating.
Database level	Program/measure
Allow multiple values	No

Value	[Text field]

Database element	Measure Description
Description	Provides detailed description of the measure; includes information about the specific measure that is reported by a program.
Database level	Program/measure
Allow multiple values	No
Value	[Text field]

Database element	**Measure Numerator**
Description	The upper portion of a fraction used to calculate a rate, proportion, or ratio. The numerator depicts the portion of the denominator population that satisfies the condition of the performance measure to be an indicator event.
Database level	Program/measure
Allow multiple values	No

Value	[Text field]

Database element	**NQF Endorsement**
Description	Measure has received time-limited or full endorsement.
Database level	Program/measure
Allow multiple values	No
Values	
NQF endorsed	Measure and its wording are exactly the same as the NQF-endorsed measure
Program defined/not endorsed	Measure and its wording are vastly different from the NQF-endorsed measures or address only a portion of the NQF definition

Database element	**NQF Number for Endorsed Measures**
Description	NQF's unique identifier for endorsed measures.
Database level	Program/measure
Allow multiple values	No

Value	[Numeric field]

Database element	**Repackaged Measure**
Description	The program reports a measure that has already been produced and reported by another program; the measure may be repackaged to the program's specific geographic level or population of focus.
Database level	Program/measure
Allow multiple values	No
Values	
Yes	
No	

Database element	Data Source
Description	The primary source documents used for data collection (for example, billing or administrative data, personnel files, agency logs).
Database level	Program/measure
Allow multiple values	Yes
Values	
Administrative - claims	Data resulting from administering health care delivery, enrolling members into health insurance plans, and reimbursing for services
Clinically enriched administrative: lab	Administrative data merged with laboratory results
Clinically enriched administrative: pharmacy	Administrative data merged with prescription-drug claims
Survey: clinician	Data collected from surveys of physicians or other health care providers
Medical records: electronic	Data based on a repository of electronically maintained information about an individual's health care and corresponding clinical information management tools that provide alerts and reminders, linkages with external health knowledge sources, and tools for data analysis; typically maintained by provider or payer (e.g., VA)
Survey: facility	Data based on a survey of a given facility or setting of care (e.g., dialysis, nursing home)
Medical records: hybrid	Data based on methods that rely on a combination of administrative and abstracted medical chart data
Medical records: paper	Data abstracted manually from a medical chart
Survey: patient	Data based on a patient's responses to a computerized, pencil-and-paper, or verbal survey (facility not specified); for example, a survey of functional status (clinician/facility not focus of survey)
Personal health record	Data based on a patient-generated electronic tool that offers a comprehensive view of personal health information, including information from doctors (diagnoses and test results), pharmacies, and insurance companies, that allows patients to access, use, share, and coordinate their personal health information
Public vital statistics	Data from the National Vital Statistics Systems (NVSS), including data collected at a county or state level that is reported to NVSS
Registry	Data obtained from repositories of patient-specific data maintained by sources such as medical specialty societies, disease-specific associations, government agencies, and manufacturers; unlike EHRs, registries are more often used for population-based analyses
Other data source	Data based on other data sources not elsewhere specified

Database element	Disparities
Description	Measures reported by race/ethnicity or socioeconomic status; address equity issues in treatment or access not fully explained by the differences in health status or preferences of the groups.
Database level	Program/measure
Allow multiple values	Yes
Values	
Race/ethnicity	Measures that address differences based on race or ethnicity or the stratification of measures based on race or ethnicity
Socioeconomic status	Measures that address differences based on socioeconomic status (defined by income, education, or occupation) or the stratification of measures based on socioeconomic status
Other	Other disparities

Database element	**Geographic Area (Measure)**
Description	Level of health care delivery or health status addressed at the measure level.
Database level	Program/measure
Allow multiple values	Yes
Values	
National	Measure is reported at the national level; denominator includes individuals across a single national entity (e.g., United States)
State	Measure is reported at a state level for one or more states
County	Measure is reported at a county level for one or more counties within a state
Community	Measure is reported at a community level; community is defined as one or more cities or a portion thereof (such as a neighborhood) within a state
Other region (MSA, HSA, HRR)	Measure is reported at a geographic level—not national, state, county, or community (e.g., Northeast, HSA, HRR)

Database element	Purpose
Description	The purpose of the public reporting.
Database level	Program/measure
Allow multiple values	Yes
Values	
Accountability: accreditation and certification	Reporting is required by a certifying or accrediting organization, such as JCAHO
Accountability: payment incentive	Reported measures are used to calculate payment incentives, such as in pay-for-performance or value-based purchasing
Accountability: public reporting	Reporting is to demonstrate accountability to one or more groups of stakeholders
Consumer choice	Reporting is intended to support consumer choices
Quality improvement	Measure supports quality-improvement activities
Other	Purpose of reporting is not otherwise specified

Database element	**Setting of Care**
Description	Setting in which care occurs.
Database level	Program/measure
Allow multiple values	Yes
Values	
Ambulance	Services or care administered in a land vehicle specifically designed, equipped, and staffed for saving life and transporting the sick or injured
Clinician office	Services or care administered in an ambulatory setting staffed by physicians or other health care providers
ESRD - dialysis	Services or care administered in a unit (hospital-based or freestanding) that is approved to furnish dialysis services directly to ESRD patients
Home health	Services or care provided in an organization that administers home care services, such as skilled nursing care, physical therapy, occupational therapy, speech therapy, and personal care by home health aides
Hospice	Services related to the provision of care to terminally ill patients and their families; includes physical care and counseling
Hospital/acute care facility: inpatient	A nonpsychiatric facility that primarily provides diagnostic, therapeutic (surgical and nonsurgical), and rehabilitation services by or under the supervision of physicians, to patients admitted for a variety of medical conditions
Post-acute/LTC facility: nursing home/skilled nursing	Services or care administered in a facility that primarily provides skilled nursing care and related services for the rehabilitation of injured, disabled, or sick persons, or on a regular basis, health-related care services above the level of custodial care to other than mentally retarded individuals
Post-acute/LTC facility: rehabilitation	Services or care administered in a facility that provides a variety of services, including physicians' services, physical therapy, social or psychological services, and outpatient rehabilitation on an inpatient or outpatient basis
Post-acute/LTC facility: other post acute	Services or care administered in a post-acute/ LTC facility, not otherwise specified
Hospital/acute care facility: outpatient clinic	Services or care administered in a medical or surgical facility that does not include an overnight hospital stay
Hospital/acute care facility: outpatient emergency department	Services or care administered in a department within a health care facility that is intended to provide rapid treatment to victims of sudden injury or illness
Hospital/acute care facility: outpatient imaging	Services or care administered in a hospital or freestanding facility that provides X-ray or other imaging services on an outpatient basis
Hospital/acute care facility: outpatient laboratory	Services or care provided in a laboratory certified to perform diagnostic and/or clinical tests, either independently or in a facility
Hospital/acute care facility: outpatient pharmacy	Services related to a pharmacy that provides take-home prescribed medications to patients

Hospital/acute care facility: outpatient surgery/ambulatory surgery center	Services related to surgery provided in a hospital-based or freestanding facility that does not require a hospital admission
Hospital/acute care facility: outpatient other	Services related to medical or surgical care that does not include an overnight hospital stay; not otherwise specified
Other setting	Services or care administered in a setting of care not otherwise specified

Database element	Target Population
Description	Population, clients, or subjects intended to be measured or served by the program, by age.
Database level	Program/measure
Allow multiple values	Yes
Values	
Child/adolescent (under 18)	Measures that target individuals age 17 and under
Adult	Measures that target individuals between the ages of 18 and 64
Advanced age (over 65)	Measures that target individuals over age 65
Unspecified	Population not specified

Database element	Unit of Analysis for Reporting
Description	Level at which measurement occurs and the denominator is reported.
Database level	Program/measure
Allow multiple values	Yes
Values	
Clinician: group practice	Measure reported at the level of a group practice, defined as two or more physicians or other providers who practice together, either at a single geographic location or at multiple locations
Clinician: individual	Measure reported at the level of individual health care providers, such as physicians, nurse practitioners, nurses, and physician assistants
Facility	Measure reported at the level of a health care facility, such as a hospital, nursing home, or dialysis center
Health plan	Measure reported at the level of a health plan, defined as an organization that acts as insurer for an enrolled population
Integrated delivery system	Measure reported at the level of an integrated delivery system, defined as an entity that usually includes a hospital, a large medical group, and an insurance vehicle such as an HMO or PPO; typically, all provider revenues flow through the organization

Database element	Conditions
Description	List of OPUS conditions
Database level	Program/measure
Allow multiple values	Yes

Values

Cancer: bladder

Cancer: breast

Cancer: colorectal

Cancer: endometrial

Cancer: esophageal

Cancer: gynecologic

Cancer: hematologic

Cancer: liver

Cancer: lung

Cancer: melanoma

Cancer: other cancer (specify)

Cancer: pancreatic

Cancer: prostate

Cardiovascular: acute myocardial infarction

Cardiovascular: atrial fibrillation

Cardiovascular: congestive heart failure

Cardiovascular: hypertension

Cardiovascular: ischemic heart disease/coronary artery disease

Cardiovascular: other cardiovascular (specify)

Cardiovascular: percutaneous coronary intervention

Child health: other child health (specify)

Child health: perinatal

Diabetes: diabetes

Gastrointestinal: appendicitis

Gastrointestinal: bleeding

Gastrointestinal: cirrhosis

Gastrointestinal: gallbladder disease

Gastrointestinal: gastroenteritis

Gastrointestinal: gastro-esophageal reflux disease (GERD)/peptic ulcer

Gastrointestinal: other gastrointestinal disease (specify)

Gastrointestinal: polyps

Genito-urinary: gynecological

Genito-urinary: incontinence

Genito-urinary: male genito-urinary

Genito-urinary: pregnancy

Head, eyes, ears, nose, throat: cataract

Head, eyes, ears, nose, throat: dental

Head, eyes, ears, nose, throat: ear infection

Head, eyes, ears, nose, throat: glaucoma

Head, eyes, ears, nose, throat: headache: migraine

Head, eyes, ears, nose, throat: headache: other headache

Head, eyes, ears, nose, throat: hearing

Head, eyes, ears, nose, throat: other HEENT (specify)

Head, eyes, ears, nose, throat: pharyngitis

Infectious disease: hepatitis

Infectious disease: other infectious disease (specify)

Infectious disease: sexually transmitted: human immunodeficiency virus (HIV)

Infectious disease: sexually transmitted: other sexually transmitted (specify)

Infectious disease: tuberculosis

Mental health: depression: major

Mental health: depression: other depression (specify)

Mental health: domestic violence

Mental health: other mental health (specify)

Mental health: serious mental illness

Mental health: substance use/abuse (e.g., alcohol, illicit drugs, other)

Musculoskeletal: arthritis: osteo

Musculoskeletal: arthritis: rheumatoid

Musculoskeletal: hip/pelvic fracture

Musculoskeletal: joint surgery

Musculoskeletal: low back pain

Musculoskeletal: osteoporosis

Musculoskeletal: other musculoskeletal

Neurologic: dementia/delirium: Alzheimer's disease

Neurologic: dementia/delirium: other dementia/delirium

Neurologic: other neurologic (specify)

Neurologic: stroke

Neurologic: transient ischemic attack (TIA)

Not applicable: not applicable

Other condition: other condition (specify):

Preventive: immunization

Preventive: malnutrition

Preventive: obesity

Preventive: other preventive (specify)

Preventive: physical activity

Preventive: screening

Preventive: tobacco use

Preventive: weight screening

Pulmonary: chronic obstructive pulmonary disease

Pulmonary: other pulmonary (specify)

Renal: chronic kidney disease

Renal: end stage renal disease

Renal: other renal (specify)

Safety: health care associated infections

Safety: other safety (specify)

Safety: venous thromboembolism/pulmonary embolism

Surgical: breast surgery

Surgical: cardiac

Surgical: general

Surgical: genito-urinary

Surgical: neurosurgery

Surgical: neurosurgery and orthopedics

Surgical: orthopedic surgery

Surgical: other surgical (specify)

Surgical: otolaryngology

Surgical: perioperative

Surgical: safe practices

Surgical: thoracic

Surgical: urology

Surgical: vascular

Database element	**First Published Report Date**
Description	Date the program's first report was published. Reports compare measures of provider performance or track indicators of population health and are accessible to target audiences that may include consumers, providers, and other individuals or organizations. Excluded are reports that health plans make available only to their members, reports produced by organizations only for internal purposes, and reports made available only for a fee.
Database level	Program
Allow multiple values	No

Value	[Text field]

Database element	**Frequency of Reports**
Description	Indicates how frequently reports are updated during a year. Reports compare measures of provider performance or track indicators of population health and are accessible to target audiences that may include consumers, providers, and other individuals or organizations. Excluded are reports that health plans make available only to their members, reports produced by organizations only for internal purposes, and reports made available only for a fee.
Database level	Program
Allow multiple values	No
Values	
Quarterly	Reports are issued four times a year
Semi-annually	Reports are issued twice a year
Monthly	Reports are issued monthly
Yearly	Reports are issued once a year
Other	Reports are issued at other time intervals [Text field]

Database element	**Most Recent Report Date**
Description	Date of the program's most recent report. Reports compare measures of provider performance or track indicators of population health and are accessible to target audiences that may include consumers, providers, and other individuals or organizations. Excluded are reports that health plans make available only to their members, reports produced by organizations only for internal purposes, and reports made available only for a fee.
Database level	Program
Allow multiple values	No

Value	[Date field]

Database element	**Report Link**
Description	A link to an electronic version of the report, if available.
Database level	Program
Allow multiple values	No

Value	[Text field]

Database element	**Report Name**
Description	The title of the program's publicly available reports.
Database level	Program
Allow multiple values	No

Value	[Text field]

Database element	**Measure Title**
Description	Provides general information about the measure. The information contained in the title is independent of the programs that report the measure.
Database level	Measure
Allow multiple values	No

Value	[Text field]

Database element	**Measurement Domain: Access**
Description	Measures that assess a patient's attainment of timely and needed health care.
Database level	Measure
Allow multiple values	No
Values	
Access	Measures that assess the ability to obtain needed health care services in a timely manner

Database element	**Measurement Domain: Cost**
Description	Measures of the health care spending, including total resource use and unit price, by payer or consumer, for a health care service or group of health care services associated with a specified patient population, time period, and units of clinical and financial (e.g., payer) accountability.
Database level	Measure
Allow multiple values	No
Values	
Episode	Measures that may be applied across the course of an episode of illness
Per capita	Annual spending on health care per person
Service: medication prescribing	Measure tied to rate of use, overuse, or misuse of medications
Service: emergency department visits	Measure tied to use of the emergency department
Service: hospital length of stay	Measures related to length of stay, such as in an inpatient facility
Service: hospital readmission	Measures related to N-day readmissions
Service: imaging	Measures related to the use of outpatient imaging
Service: procedure utilization	Measures related to the of provision or cost of specific medical procedures
Service: other	Cost of a service not mentioned above
Other cost/resource use	Measures related to cost or resource that are not specified elsewhere

Database element	Measurement Domain: Outcome
Description	Measures that assess care outcomes.
Database level	Measure
Allow multiple values	No
Values	
Health status: functional status	Measures that report patient ability to perform activities of daily living (e.g., bathing, toileting, dressing, eating) or instrumental activities of daily living (e.g., medication management, shopping, food preparation)
Health status: health related quality of life	Measures related to patient self-perception of quality of life; usually based on patient survey
Health status: morbidity	Intermediate outcome measures that describe level of health/disease
Intermediate outcomes	Leading or indirect indicators of end outcomes that measure the effects of an intervention that leads to a health outcome
Mortality	All mortality measures, including disease-specific or all-cause, reported for a specific time period
Patient experience	Measures that use feedback from patients and their families about their experience with care, (e.g., CAHPS or other patient surveys)
Readmission	Measures related to N-day readmissions
Safety outcomes	Measures assessing outcomes of poor safety practices and/or of safety practices meant to reduce harm (e.g., medication administration errors)
Other outcome	Other outcome measures not specified elsewhere

Database element	**Measurement Domain: Process**
Description	Measures that assess a health care service provided to, or on behalf of, a patient. Process measures are often used to assess adherence to recommendations for clinical practice based on evidence or consensus.
Database level	Measure
Allow multiple values	No
Values	
Care coordination	Measures assessing relationship and communication between providers and patients, including plan of care development and follow-up, follow-up for tests, referrals, etc.; availability of patient information to necessary caregivers/patient/family members; information systems to support coordination (e.g., registries); health data exchange among providers; and care-transition issues, such as medical reconciliation, communication between providers, and other factors
Clinical care processes	Measures assessing adherence to processes of care (e.g., aspirin at arrival, foot exam for diabetics)
Healthy lifestyle behaviors	Measures associated with any activity undertaken by an individual, regardless of actual or perceived health status, to promote, protect, or maintain health, whether or not such behavior is objectively effective toward that end
Patient and family engagement	Measures assessing involvement of patient and family in decision-making regarding care
Prevention services	Measures related to health care services that prevent disease or its consequences; include primary, secondary, and tertiary prevention
Safety practices	Measures whose primary purpose is to prevent harm while participating in the health care system
Other process	Other process measures not elsewhere specified

Database element	**Measurement Domain: Structure**
Description	Measures that focus on features of a health care organization or clinician relevant to its capacity to provide health care.
Database level	Measure
Allow multiple values	No
Values	
Healthcare infrastructure – workforce	Measures related to the composition and characteristics of the health care workforce; can include staffing and accreditation measures
HIT utilization	Measures related to the use of HIT—a global term that encompasses electronic and personal health records and indicates the use of computers, software programs, electronic devices, and the Internet to store, retrieve, update and transmit information about patients' health
Management	Measures related to the presence or absence of certain management features
Service availability	Measures related to the availability of specific services to the patient or family
Room and bed availability	Measures related to the presence or number of certain types of rooms or beds at a facility
Other	Other structure measures not elsewhere specified

Database element	**National Priorities**
Description	Priorities collectively and individually address four major challenges—eliminating harm, eradicating disparities, reducing disease burden, and eliminating waste.
Database level	Measure
Allow multiple values	Yes
Values	
Care coordination	Measures related to whether patients and clinicians have access to and consider all required information on a patient's preference, conditions, and treatments to ensure that the patient receives appropriate health care services. Such measures capture whether a health care system guides patients and families through their health care experience while respecting patient choice; clearly communicates medication information and options; offers physical and psychological support; and encourages strong relationships between patients and the healthcare professionals accountable for their care. Care coordination can influence rates of 30-day readmission and preventable emergency department visits.
Overuse	Measures related to a process of care when the potential for harm exceeds the potential for benefit. Such measures reflect health care that promotes better health and more affordable care by continually and safely reducing the burden of unscientific, inappropriate, and excessive care, including tests, drugs, maternity care interventions (e.g., cesarean sections), procedures, visits, hospital stays, non-palliative services at end of life, consultations, preventable emergency department visits and hospitalizations, and harmful preventive services with no benefit.
Palliative and end-of-life care	Measures that address the needs of patients with life-limiting illnesses for support and assistance to prevent and treat pain, ensure continuity of care, inform decisions, and address spiritual needs. These measures capture health care that promises dignity, comfort, companionship, and spiritual support to patients and families facing advanced illness or dying, in synch with all of the resources that community, friends, and family can provide at the end of life. Those with life-limiting illnesses will receive high-quality palliative care and hospice services.

Patient and family engagement	Measures that address whether patients and their families take an active role in their health care, from understanding their conditions and available treatments, to seeking information for making decisions based the performance of health care providers. Such measures capture whether care provided honors the wishes of each patient and family, offering them voice, control, choice, self-care skills, and total transparency; adapts readily to individual and family circumstances; and comprehends cultures, languages, and social backgrounds. These measures assess whether patients are asked for feedback on their experience with care, have access to tools and support systems enabling them to navigate and manage their care, and have access to information and assistance that enable them to make informed decisions.
Population health	Measures that promote disease prevention and health in a specific population and extend beyond medical treatment by targeting risk factors, such as tobacco, drug, and alcohol use; diet and sedentary lifestyles; and environmental factors. Such measures capture whether communities foster health and wellness, and they reflect national, state, and local systems of care that are fully invested in the prevention of disease, injury, and disability. These measures reflect whether communities and systems are reliable, effective, and proactive in helping people reduce the risk and burden of disease.
Safety	Measures that relate to actual or potential bodily harm in a health care setting. These measures seek to capture the reduction in the risk of injury from care, aiming for "zero" harm, disability, and death wherever and whenever possible. These measures include preventable and premature mortality rates and 30-day mortality rates following hospitalization for select conditions (acute myocardial infarction, heart failure, and pneumonia). They also focus on continually reducing and seeking to eliminate all health care associated infections and serious adverse events. This reduction produces a system that can promise reliable care, guaranteeing that every patient receives the benefits of care based solidly in science. High performance indicates that health care leaders and professionals are intolerant of defects or errors in care and constantly seek improvement, regardless of their current levels of safety and reliability.
Measure not classified	Measure does not address one of the National Priorities.

Database element	**Phase of Care**
Description	The three phases are considered foundational to any assessment of efficiency regardless of the type of health problem—acute, chronic, or a combination of both.
Database level	Measure
Allow multiple values	Yes
Values	
Population at risk	The phase before the onset of clinical symptoms and the initial evaluation and management phase. This phase focuses on health promotion and primary and/or secondary prevention.
Initial evaluation and management	The phase that begins at the onset of clinical illness and includes an initial assessment of an informed patient's preferences with regard to the available treatment options and, if warranted, palliative care.
Follow-up care	This phase should focus on seamless care coordination, targeting care transitions and medication reconciliation, particularly during handoffs between providers and across different settings; strongly incorporates initiation of appropriate secondary prevention.
Not classified	Phase of care is not classified.

APPENDIX C. DECISION RULES

Database Variable	Decision Rule
Condition	For any measure related to primary prevention, also select preventive condition (e.g., for breast-cancer screening, select two conditions: "Cancer: Breast" and "Preventive: Screening")
Condition	Mark postpartum care as "Preventive: Other Preventive (Specify)."
Condition	Mark childhood vaccination measures as "Preventive: Immunization."
Condition	For composite measures related to care for a given condition and including individual measures to support health of that condition, select the main condition (e.g., "Pneumonia" for a pneumonia composite measure that includes rate of smoking and influenza vaccination).
Condition	For complication measures in which the complication is unknown, use the condition "Admitting".
Contact	If no contact is listed, select the most senior staff listed or use a general organizational contact.
Data Source	A measure may have different data sources.
Data Source	If the measure is complaint-related (e.g., allegations filed with an agency), mark the data source "Administrative."
Disparity	Measures reported by aid category (SSI and non SSI) are "Socioeconomic."
First Published Report Date	If a report gives only a year (e.g., since 2002), enter date as January 1 of that year (e.g., 1/1/2002)
Geographic Area	Mark a section of a state as "Other." Mark a state plus a section of another state as "State." Mark three states together as "State." (For example, mark Northeast Illinois as "Other;" Southern Washington and Oregon as "State;" and tristate area as "State").
Geographic Area (Measure)	Select the geographic reporting level that matches the level of reporting program on the program elements tab, unless otherwise indicated.
Measure Description	For five-star/aggregate ratings, describe the rating scheme used to develop the aggregate rating.
Measure Domain: Access	Overuse measures (procedure NOT provided) should be measurement domain "Access."
Measure Domain: Access	Timely care/ease of getting care should be measurement domain "Access."
Measure Domain: Cost	Esophageal, pancreatic resection, and cesarean section measures are "Procedure Utilization."
Measure Domain: Outcome	Mark measures related to eating, mobility, toileting, rehabilitation, impaired cognition, reduced physical function, and similar factors as "Outcome: Functional Status."
Measure Domain: Outcome	Diabetes control and management measures are "Intermediate Outcome."
Measure Domain: Outcome	Blood pressure control after surgery, complication, and pressure ulcer related measures are "Safety."
Measure Domain: Process	The domain for smoking cessation advice for heart-attack/failure patients could be considered both "Process: Clinical Care Processes" and "Process: Prevention Services." Because you cannot select both, mark "Process: Prevention Services."
Measure Domain: Structure	Measures related to employee satisfaction, number of beds, fire-safety inspection, and smoking cessation are "Structure: Other."
Measure Domain: Structure	Classify measures related to board certification as "Structure: Other."

Database Variable	Decision Rule
Measure Domain: Structure	Measures regarding hours, number of physicians, staff turnover, and board certification are "Healthcare Infrastructure: Workforce."
Measure Domain: Structure	The measurement domain for whether nursing homes allow alcohol or smoking is "Structure: Other."
National Priority	Childhood immunizations (receipt of seven recommended immunizations by the age of 2) should be marked as "Population Health."
National Priority	Primary and secondary prevention measures and patient education measures are "Population Health."
National Priority	Readmission, ambulatory-care hospitalization, and rating of procedure outcome measures are "Care Coordination."
National Priority	Measures related to mortality and survival are "Safety."
National Priority	Measures related to cost, number of patients, number of provider hours, number of beds, and severity of illness are generally "Not Classified." However, severity-related measures may be classified depending on the condition (e.g., bed sores may be classified as "Safety").
National Priority	Measures related to volume, utilization of procedure, and length of stay are generally "Overuse."
National Priority	Measures related to health and building inspection are "Safety."
National Priority	Measures related to generic prescription, antibiotic prescription, and cesarean section are "Overuse."
National Priority	Patient satisfaction and patient communication with providers are "Patient and Family Engagement."
National Priority	Nursing home and residential facility and services offered are "Palliative and End-of-Life Care." However, measurement of staff retention, hours, and certification at these facilities is "Not Classified."
NQF Endorsement	If part of the language of a measure is similar to an NQF-endorsed measure but does not match each part of an NQF description, do not consider it an NQF-endorsed measure.
Payer Type	If language states "all payer," select "Commercial, Medicare, and Medicaid." If language is unclear, leave blank.
Phase of Care	Measures related to mortality, cost, volume of procedure, and severity are generally "Not Classified." However, measures related to volume and severity may be classified depending on the condition. (For example, bed sores may be classified as "Initial Evaluation and Management" and "Follow-up Care").
Phase of Care	Primary and secondary prevention measures are "Population at Risk."
Phase of Care	Provider action to prevent infection (e.g., handwashing) are "Population at Risk."
Phase of Care	Diagnostic procedure measures to identify disease are "Population at Risk" and "Initial Evaluation and Management."
Phase of Care	Measures related to average length of stay, communication with providers, cleanliness and quiet, pain control, patient recommendation or rating of hospital/provider, and use of restraint are "Initial Evaluation and Management" and "Follow-up Care."
Phase of Care	For readmission measures and preventable hospitalization, phase of care is "Follow-up Care."

Database Variable	Decision Rule
Phase of Care	ICU and other health care related infections are “Initial Evaluation and Management.”
Purpose	Default to "Accountability: Public Reporting." Often, both "Accountability: Public Reporting" and "Consumer Choice" will be selected.
Purpose	If a program is reporting data because of a state mandate, select “Public Reporting,” “Consumer Choice,” or both, and select “Other” to reflect that reporting is in response to a new law.
Report Link	Capture links to main public reporting tools only and include only most recent version of a report in a series of reports. Exclude small-scale papers and memos.
Setting of Care	If a program reports at the medical group level, setting of care should be marked as “Clinician Office.”
Setting of Care	Patients generally receive prenatal and postpartum care in a clinician office. Default to “Clinician Office” for these measures, unless otherwise indicated.
Setting of Care	Setting of care for ambulatory care visit is “Clinician Office.”
Setting of Care	Residential care facilities are “Post-acute/LTC Facility: Nursing Homes/Skilled Nursing.”
Target Population	If population is Medicare, do not assume advanced age. Indicate "Not Specified" unless a target population is otherwise made clear.
Unit of Analysis	A facility refers to a hospital, nursing home, or dialysis center--not a clinician office or a physician group practice. For physician measures, if an individual or group of physicians is not specified for a measure, select both “Clinician: Individual Practice” and “Clinician: Group Practice.”
Unit of Analysis for Reporting	If a program reports at the medical group level, mark unit of analysis as “Clinician: Group Practice.”

APPENDIX D. SUPPLEMENTAL TABLES

Table D.1. Domains Captured by Programs at Community, County, State, National, and Other Geographic Levels (Number, Mean, and Range)

	National				State				County				Community				Other			
	Program	Measure			Program	Measure			Program	Measure			Program	Measure			Program	Measure		
	N	N	Mean	Range	N	N	Mean	Range	N	N	Mean	Range	N	N	Mean	Range	N	N	Mean	Range
All Programs	11	623	57	3-118	46	2579	56	4-201	5	229	46	1-72	3	256	85	11-132	7	567	81	12-261
Purpose for Reporting																				
Accountability: Accreditation/certification	1	80	80	N.A.	1	11	11	N.A.	1	1	1	N.A.	0	0	N.A.	N.A.	0	0	N.A.	N.A.
Accountability: Payment incentive	1	1	1	N.A.	1	12	12	N.A.	0	0	N.A.	N.A.	0	0	N.A.	N.A.	0	0	N.A.	N.A.
Accountability: Public reporting	11	454	41	1-112	41	2383	58	5-200	5	218	44	1-70	3	241	80	11-117	7	559	80	12-256
Consumer choice	11	514	47	3-114	42	2409	57	4-201	4	222	56	19-70	3	256	85	11-132	6	445	74	12-174
Quality improvement	2	4	2	N.A.	14	136	10	1-88	3	7	2	1-4	2	3	2	1-2	3	6	2	2-2
Other	2	101	71	1-140	4	201	54	12-75	0	0	N.A.	N.A.	0	0	N.A.	N.A.	0	0	1	N.A.
Phase of Care																				
Population at risk	7	48	7	1-26	32	351	11	1-43	4	33	8	5-11	2	11	6	3-8	6	51	9	3-14
Initial evaluation and management	11	245	22	1-52	44	1025	23	1-119	3	100	33	30-37	3	64	21	10-34	5	180	36	1-101
Follow-up care	11	295	27	1-66	44	1247	28	1-120	4	123	31	14-39	3	78	26	11-38	7	247	35	2-119
Not classified	8	197	25	2-66	37	600	16	1-85	4	23	6	1-10	2	143	72	71-72	5	171	34	1-73
Measurement Domain																				
Access	8	34	4	1-23	21	49	2	1-7	3	6	2	1-4	2	3	1.5	1-2	5	8	2	1-4
Cost and utilization	7	101	14	1-41	39	663	17	1-117	5	41	8	1-18	2	151	76	73-78	6	161	27	5-73
Structure	8	67	8	1-42	21	154	7	1-51	3	20	7	1-13	0	0	N.A.	N.A.	2	11	6	4-7
Process	10	211	21	2-61	37	1014	27	2-88	4	137	35	15-46	3	76	25	8-39	7	235	34	5-109
Outcome	10	243	24	3-69	42	876	21	1-95	4	52	13	3-18	3	45	15	3-27	6	204	34	5-128
National Priority Area																				
Patient and family engagement	10	63	6	1-17	31	287	9	1-76	3	34	11	9-13	3	27	9	4-14	5	45	9	1-14
Population health	7	50	7	1-22	30	393	13	1-51	4	42	11	8-14	2	16	8	6-10	6	68	11	5-16
Safety	8	149	19	1-68	33	378	11	1-43	4	17	4	2-6	2	8	4	4-4	4	108	27	4-90
Care coordination	9	172	19	1-45	38	793	21	1-63	4	112	28	6-40	3	69	23	6-38	6	215	36	5-115
Palliative and end-of-life care	4	46	12	1-22	7	139	20	4-55	0	0	N.A.	N.A.	0	0	N.A.	N.A.	0	0	N.A.	N.A.
Overuse	3	36	12	8-20	32	323	10	1-57	2	24	12	9-15	1	2	2	N.A.	5	32	6	1-19
Measure not classified	9	116	13	1-43	34	327	10	1-51	3	4	1	1-2	3	138	46	1-69	4	102	26	1-68
Condition																				
Cancer	3	7	2	1-3	20	68	3	2-6	3	10	3	3-4	2	4	2	2-2	4	20	5	1-13
Cardiovascular	9	86	10	1-23	35	363	10	1-31	4	58	15	9-19	3	48	16	4-22	5	99	20	5-40
Child health	4	13	3	2-4	23	102	4	1-19	3	9	3	1-6	1	3	3	N.A.	2	37	19	5-32
Diabetes	4	23	6	1-15	24	150	6	1-18	4	23	6	4-11	2	11	6	3-8	6	63	11	3-33
Gastrointestinal	3	17	6	1-12	10	24	2	1-7	1	1	1	N.A.	2	7	4	3-4	2	6	3	3-3
Genito-urinary	6	28	5	1-16	28	109	4	1-22	0	0	N.A.	N.A.	2	6	3	3-3	2	11	6	3-8
Head, eyes, ears, nose, throat	2	7	4	2-5	12	21	2	1-5	1	2	2	N.A.	1	1	1	N.A.	0	0	N.A.	N.A.
Infectious disease	2	2	1	N.A.	13	25	2	1-4	1	1	1	N.A.	0	0	N.A.	N.A.	2	3	2	1-2
Mental health	3	15	5	1-13	22	101	5	1-14	2	5	3	2-3	1	2	2	N.A.	1	1	1	N.A.
Musculoskeletal	5	22	4	3-7	27	77	3	1-15	2	3	2	1-2	2	37	19	18-19	3	21	7	1-18
Neurologic	5	8	2	1-3	21	53	3	1-10	1	1	1	N.A.	0	0	N.A.	N.A.	2	14	7	2-12
Preventive	7	48	7	1-22	30	377	13	2-45	4	54	14	9-16	2	16	8	4-6	7	77	11	3-17
Pulmonary	8	60	8	1-14	32	216	7	1-25	4	31	8	1-14	3	32	11	3-17	4	66	17	9-34
Renal	5	16	3	1-8	10	22	2	1-5	0	0	N.A.	N.A.	0	0	N.A.	N.A.	1	1	1	N.A.
Safety	3	22	7	1-15	22	142	6	1-27	0	0	N.A.	N.A.	0	0	N.A.	N.A.	2	40	20	2-38
Surgical	7	99	14	1-26	29	330	11	1-44	3	30	10	8-12	3	101	34	3-50	4	150	38	6-84
Other condition	5	35	7	3-17	16	67	4	1-11	1	1	1	N.A.	0	0	N.A.	N.A.	1	2	2	N.A.
Not applicable	11	195	18	1-52	41	756	18	1-131	4	54	14	1-21	3	30	10	5-16	4	57	14	10-19
Target Population																				
Child/adolescent	3	19	6	1-16	26	253	10	1-41	3	15	5	3-8	1	4	4	N.A.	4	51	13	1-44
Adult	5	71	14	4-36	34	551	16	1-68	3	48	16	13-21	3	20	7	3-12	5	166	33	1-106
Advanced aged	6	187	31	1-67	37	608	16	1-84	3	52	17	9-22	3	82	27	5-70	5	174	35	1-110
Unspecified	11	409	37	3-70	43	1646	38	1-162	5	151	30	1-54	3	166	53	6-119	7	333	48	12-101

	National				State				County				Community				Other			
	Program	Measure			Program	Measure			Program	Measure			Program	Measure			Program	Measure		
	N	N	Mean	Range	N	N	Mean	Range	N	N	Mean	Range	N	N	Mean	Range	N	N	Mean	Range
All Programs	11	623	57	3-118	46	2579	56	4-201	5	229	46	1-72	3	256	85	11-132	7	567	81	12-261
Disparities																				
Race/ethnicity	1	46	46	N.A.	2	14	7	4-10	1	1	1	N.A.	0	0	N.A.	N.A.	0	0	N.A.	N.A.
Socioeconomic	0	0	N.A.	N.A.	2	6	3	1-5	1	1	1	N.A.	0	0	N.A.	N.A.	0	0	N.A.	N.A.
Other	1	40	40	N.A.	2	69	35	28-41	0	0	N.A.	N.A.	0	0	N.A.	N.A.	1	1	1	N.A.
Unit of Analysis																				
Clinician: Group practice	3	4	1	1-2	17	350	21	1-88	3	46	15	4-21	0	0	N.A.	N.A.	4	51	13	6-18
Clinician: Individual practice	3	38	13	3-30	5	40	8	5-10	0	0	N.A.	N.A.	1	6	6	N.A.	0	0	N.A.	N.A.
Facility	8	518	65	6-110	36	1637	45	4-177	4	174	44	19-64	3	250	83	11-126	7	495	71	2-237
Health plan	2	58	29	1-57	12	583	49	1-125	3	24	8	1-18	0	0	N.A.	N.A.	3	41	14	5-19
Setting of Care																				
Clinician office	5	93	19	2-53	24	783	33	1-91	4	75	19	16-21	2	25	13	4-21	7	80	11	2-19
ESRD	2	5	3	2-3	1	1	1	N.A.	0	0	N.A.	N.A.	0	0	N.A.	N.A.	0	0	N.A.	N.A.
Home health	2	12	6	1-11	6	59	10	1-40	0	0	N.A.	N.A.	0	0	N.A.	N.A.	0	0	N.A.	N.A.
Hospice	1	2	2	N.A.	2	53	27	1-52	0	0	N.A.	N.A.	0	0	N.A.	N.A.	0	0	N.A.	N.A.
Hospital (inpatient)	8	465	58	5-107	32	1248	39	1-141	3	141	47	44-49	3	230	77	11-110	7	450	64	2-235
Hospital (outpatient)	0	0	N.A.	N.A.	8	87	11	1-35	1	21	21	N.A.	0	0	N.A.	N.A.	1	4	4	N.A.
Hospital (outpatient ED)	0	0	N.A.	N.A.	5	12	2	1-5	0	0			0	0	N.A.	N.A.	1	3	3	N.A.
Hospital (outpatient imaging)	0	0	N.A.	N.A.	3	36	12	1-20	1	1	1	N.A.	0	0	N.A.	N.A.	0	0	N.A.	N.A.
Hospital (outpatient laboratory)	0	0	N.A.	N.A.	0	0	N.A.	N.A.	1	1	1	N.A.	0	0	N.A.	N.A.	0	0	N.A.	N.A.
Hospital (outpatient pharmacy)	0	0	N.A.	N.A.	0	0	N.A.	N.A.	1	1	1	N.A.	0	0	N.A.	N.A.	1	1	1	N.A.
Hospital (outpatient surgery)	0	0	N.A.	N.A.	5	33	7	1-22	0	0	N.A.	N.A.	0	0	N.A.	N.A.	2	3	2	1-2
Hospital (outpatient other)	0	0	N.A.	N.A.	1	1	1	N.A.	0	0	N.A.	N.A.	0	0	N.A.	N.A.	0	0	N.A.	N.A.
PAC/SNF/NF	7	46	7	1-23	12	351	29	1-150	0	0	N.A.	N.A.	0	0	N.A.	N.A.	0	0	N.A.	N.A.
PAC/rehabilitation	0	0	N.A.	N.A.	4	19	5	2-7	0	0	N.A.	N.A.	0	0	N.A.	N.A.	0	0	N.A.	N.A.
PAC/other	0	0	N.A.	N.A.	5	30	5	N.A.	1	5	N.A.	N.A.	0	0	N.A.	N.A.	2	28	N.A.	N.A.
Other setting	0	0	N.A.	N.A.	1	5	6	2-13	0	0	5	N.A.	0	0	N.A.	N.A.	0	0	14	9-19
NQF Endorsement																				
NQF	7	170	24	1-59	37	678	18	1-57	4	109	27	2-40	3	70	23	5-37	5	214	43	1-94
Program defined/not endorsed	11	453	41	3-102	46	1901	41	4-153	5	120	24	1-44	3	186	62	6-104	7	353	50	12-167
Data Source																				
Administrative-claims	8	412	52	1-100	41	1751	43	1-163	3	135	45	37-54	3	226	75	6-116	6	449	75	2-212
Clinically enriched administrative (lab)	0	0	N.A.	N.A.	1	2	2	N.A.	0	0	N.A.	N.A.	0	0	N.A.	N.A.	1	4	4	N.A.
Clinically enriched administrative (pharmacy)	0	0	N.A.	N.A.	1	8	8	N.A.	0	0	N.A.	N.A.	0	0	N.A.	N.A.	0	0	N.A.	N.A.
Medical records (electronic)	0	0	N.A.	N.A.	7	139	20	2-59	0	0	N.A.	N.A.	0	0	N.A.	N.A.	2	27	14	12-15
Medical records (paper)	0	0	N.A.	N.A.	2	9	5	1-8	0	0	N.A.	N.A.	0	0	N.A.	N.A.	0	0	N.A.	N.A.
Public vital statistics	0	0	N.A.	N.A.	3	15	5	1-8	0	0	N.A.	N.A.	0	0	N.A.	N.A.	0	0	N.A.	N.A.
Registry	1	2	2	N.A.	5	45	9	1-28	0	0	N.A.	N.A.	0	0	N.A.	N.A.	1	12	12	N.A.
Survey (clinician)	2	36	18	6-30	5	29	6	1-10	1	18	18	N.A.	0	0	N.A.	N.A.	0	0	N.A.	N.A.
Survey (facility)	5	91	18	2-45	18	265	15	1-55	2	17	9	6-11	0	0	N.A.	N.A.	2	5	3	1-4
Survey (patient)	7	70	10	2-23	28	339	12	2-66	4	32	8	1-12	3	30	10	5-16	5	47	9	4-15
Other data source	4	5	1	1-2	10	141	14	1-50	4	27	7	1-16	0	0	N.A.	N.A.	2	20	10	7-13

Note: Mean and range are calculated among programs that reported measures in the specific category. Programs that did not report any measures in the category were not included in the calculations.

Hospital categories include acute care facilities.

ED = emergency department

N.A. = not applicable; since there is only 1 program in the category, range is not applicable.

To simplify the table, the following categories were deleted because no programs reported them: setting of care—ambulance; unit of analysis—integrated delivery system; payer type—other; data source—medical records (hybrid); data source—personal health record.

[a] Represents the total number of measures, not the number of unique measures reported. A unique measure is defined as having the same measure description, measurement domain, national priority, and phase of care.

Table D.2. Comparison of Eight Cholesterol-Management Measures

	Measure 1	Measure 2	Measure 3	Measure 4	Measure 5	Measure 6	Measure 7	Measure 8
Program Name	California Cooperative Healthcare Reporting Initiative	California Office of Patient Advocate	Colorado Business Group on Health	Maryland Health Care Commission	New York State Department of Health	Texas Health Care Information Council	U.S. News & World Report	Virginia Health Information
Measure Description	The percentage of patients with known heart disease who have their cholesterol levels under control at LDL-C level <100mg/dL	Percentage of members with a LDL cholesterol level of less than 100 among those who had a heart attack, heart surgery, or have cardiovascular disease	Percentage of members with heart conditions ages 18-75 whose LDL cholesterol level is controlled at < 100 mg/dL	Percentage of adult members 18-75 years of age who had their cholesterol level test and had a hospitalization for a cardiovascular condition and diagnosis of a certain cardiovascular condition in 2007	Percentage of patients with known heart disease who have their cholesterol levels under control at LDL-C level <100mg/dL	Percentage of members ages 18 through 75 years who had an LDL-C screening during the measurement year and the year prior, after discharge for an acute cardiovascular event	Percentage of patients ages 18-75 with known heart disease who have their cholesterol levels under control at LDL-C level <100mg/dL	Percentage of patients ages 18-75 with known heart disease who have their cholesterol levels under control at LDL-C level <100mg/dL
Numerator	Number of patients who have their cholesterol levels under 100mg/dL	Number of members with LDL cholesterol level of less than 100 mg/dL	Number of members whose LDL cholesterol level is controlled at < 100 mg/dL	Number of members who had cholesterol levels tested in 2008.	Number of patients who have their cholesterol levels under 100mg/dL	Number of members who had an LDL-C screening during the measurement year and the year prior	Number of patients who have their cholesterol levels under 100mg/dL	Number of patients who have their cholesterol levels under 100mg/dL
Denominator	Number of patients with known heart disease	Number of members who had a heart attack, heart surgery, or have cardiovascular disease	Number of members with a heart condition ages 18-75	Number of members 18-75 years of age who had a hospitalization for a cardiovascular condition and diagnosis of a certain cardiovascular condition in 2007	Number of patients with known heart disease	Number of members ages 18 through 75 years who were discharged for an acute cardiovascular event	Number of patients with known heart disease ages 18-75	Number of patients with known heart disease aged 18-75

	Measure 1	Measure 2	Measure 3	Measure 4	Measure 5	Measure 6	Measure 7	Measure 8
Purpose	Public reporting, consumer choice	Public reporting, consumer choice	Public reporting, consumer choice	Public reporting, consumer choice	Public reporting, consumer choice	Public reporting, consumer choice, other	Public reporting, consumer choice	Public reporting, consumer choice
Data Source	Administrative - claims	Administrative - claims	Administrative - claims	Administrative - claims	Administrative - claims	Administrative - claims	Administrative - claims	Administrative - claims
Target Population	Unspecified	Unspecified	Adult, advanced age (over 65)	Adult, advanced age (over 65)	Unspecified	Adult, advanced age (over 65)	Adult, advanced age (over 65)	Adult, advanced age (over 65)
Geographic Level	State	State	State	State	State	State	National	State
NQF Endorsement	Program defined/not endorsed	Program defined/not endorsed	Program defined/not endorsed	Program defined/not endorsed	Program defined/not endorsed	Program defined/not endorsed	Program defined/not endorsed	Program defined/not endorsed
Unit of Analysis	Health plan	Health plan, group practice	Health plan	Health plan	Health plan	Health plan	Health plan	Health plan
Setting of Care	Inpatient	Clinician office	Clinician office	Clinician office	Inpatient	Clinician office	Inpatient	Inpatient

Table D.3. Comparison of Six Heart-Failure Quality-of-Care Measures

	Measure 1	Measure 2	Measure 3	Measure 4	Measure 5	Measure 6
Program Name	HealthInsight	Massachusetts Health Care Quality and Cost Council (HCQCC)	Ohio Hospital Compare	Rhode Island Department of Health	Wisconsin Collaborative for Healthcare Quality, Inc.	Wisconsin Collaborative for Healthcare Quality, Inc.
Measure Description	Percentage of patients receiving recommended care for selected heart-failure procedures, as defined by CMS Hospital Compare program (assessment of left ventricular function; ACEI or ARB for left ventricular systolic dysfunction; discharge instructions; smoking cessation advice/counseling)	Assessment of whether hospital provides recommended care for heart-failure patients, including discharge instructions, LVS evaluation, ACEI or ARB use, smoking cessation advice	Score based on the number of heart-failure patients receiving all of the appropriate care they qualify for; a higher score is better	Composite measure based on two individual indicators as reported on the CMS Hospital Compare on heart-failure quality of care	Heart failure quality of care (CMS composite) vs. hospital charges	Heart-failure length of stay (risk-adjusted) vs. quality of care (CMS composite)
Numerator	Number of eligible cases receiving recommended care		Number of heart-failure patients that receive all of the appropriate care they qualify for	Numerators of individual indicators are summed to determine the composite numerator		
Denominator	Number of eligible cases		Number of heart-failure patients	Denominators of individual indicators are summed to determine the composite denominator		
Purpose	Public reporting, consumer choice	Public reporting, consumer choice	Public reporting, consumer choice, other	Public reporting, consumer choice	Public reporting, consumer choice	Public reporting, consumer choice

	Measure 1	Measure 2	Measure 3	Measure 4	Measure 5	Measure 6
Data Source	Administrative - claims	Administrative - claims	Electronic health records	Administrative - claims	Administrative - claims	Administrative - claims
Target Population	Unspecified	Unspecified	Unspecified	Unspecified	Unspecified	Unspecified
Geographic Level	National	State	State	State	State	State
NQF Endorsement	Program defined/not endorsed	Program defined/not endorsed	Program defined/not endorsed	Program defined/not endorsed	Program defined/not endorsed	Program defined/not endorsed
Unit of Analysis	Facility	Facility	Facility	Facility	Facility	Facility
Setting of Care	Inpatient	Inpatient	Inpatient	Inpatient	Inpatient	Inpatient

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