



# Quality Measurement and Public Reporting on Hospital Performance

A Compendium of Existing Reporting Services

January 2009



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**Research Department**

**January 2009**

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**QUALITY MEASUREMENT AND PUBLIC REPORTING  
ON HOSPITAL PERFORMANCE:  
A COMPENDIUM OF EXISTING REPORTING SERVICES**

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## PREFACE

The Health Research and Educational Trust of New Jersey (HRET), a nonprofit affiliate of the New Jersey Hospital Association, is pleased to offer the result of its new study, *Quality Measurement and Public Reporting on Hospital Performance*. This study was conducted by our Research Department following a recommendation from the HRET board of trustees expressing a need for a review of major existing report cards and public reporting data services to help hospitals identify those that routinely report their process and outcomes data, learn their strengths and weaknesses and determine how to reliably use them for benchmarking.

To conduct the study, the Research Department investigated the existing services that publicly reported data on hospital performance, processes and care outcomes and collected information about each service and reporting body, including their sources of data, methodologies utilized to calculate rates and produce report cards, as well as the shortcomings and limitations.

In this report, a descriptive summary of a selection of existing report cards is presented. The report will be submitted to the NJHA and HRET boards and will serve as the first step to increasing awareness about the existing public reporting services that promote a culture of accountability and transparency in healthcare organizations.

We hope this information will help New Jersey hospitals identify major public reporting services that report their process and outcomes data, determine the strengths and weaknesses of these services, identify the ones that are considered reliable reports cards and establish processes to regularly monitor their reported data for benchmarking. The ultimate goal is to encourage hospitals to routinely make use of the publicly reported healthcare performance data, even if they are not perfect measurement systems, to benchmark their services, identify areas that need improvement in the quality and processes of care delivery, take necessary steps to improve the overall quality of care they provide and enhance patient safety. This will help them stay competitive in the current healthcare market and ensure that they render the highest standard of care to their patients.

If you have questions about this study and the report, please contact Dr. Firoozeh Vali, HRET's vice president of research, at (609) 275-4145.

A handwritten signature in black ink, appearing to read "Elizabeth A. Ryan".

Elizabeth A. Ryan, Esq.  
President and Chief Executive Officer

# **QUALITY MEASUREMENT AND PUBLIC REPORTING ON HOSPITAL PERFORMANCE: *A COMPENDIUM OF EXISTING REPORTING SERVICES***

## **I. INTRODUCTION**

Over the last few decades, as advances in research, technology and care have altered the delivery of healthcare services, there have been growing concerns regarding the quality of services delivered, how many services are provided and at what cost. In this new environment, numerous stakeholders, including payers, purchasers, patients and policymakers, have an intense interest in increasing the transparency, the efficiency and the quality of care provided. In an effort to achieve these goals, a number of initiatives, including public reporting of comparative information on healthcare quality indicators, have been introduced in recent years and become an accepted way of improving accountability and quality. The Agency for Healthcare Research and Quality (AHRQ) has recently identified more than 220 such healthcare reports available to the public.

Public reporting, as the name suggests, refers to any report that includes healthcare data made available to the public. According to the Institute of Medicine, “performance measures can serve as the foundation for public reporting programs intended to improve accountability among providers and to aid consumers in making informed choices.” Public disclosure of performance measures may contribute to advancing improvement via incremental changes in consumer, professional and managerial behavior. The transparency achieved through hospital quality measurement and public reporting of performance can accelerate the quality improvement process and create accountability for resource use.

There are ongoing debates on the concept of public reporting as part of healthcare organizations’ culture of accountability and transparency, as well as who should provide them and the type of meaningful and accurate information that should be available to patients for their healthcare decision making. Currently, public reporting of quality efforts are used for:

- National and regional tracking;
- Accreditation;
- Comparative clinical outcomes; and,
- Pay for performance.

The factors examined in public reports to measure and report the quality of care and evaluate a provider typically include one or more of the following types of information:

- Structural indicators: accreditation, certification and staffing ratios;
- Volume: number of procedures performed by a provider;
- Process: clinical quality indicators measured during the treatment process;
- Outcomes: risk-adjusted short term, intermediate and long term;
- Spending: cost of care provided, price or resources used to provide care;

- Efficiency/Value: combination of cost and quality metrics; and,
- Patient experience: patients' perception of the provider and care provided.

The public report cards reflecting the composite scoring of providers' ratings and rankings on these factors should be based on all patients or a statistically representative sample of patients of a practice. However, many current reports are limited in the population included or the type of information collected. They are sometimes representative of small populations characterized by a specific disease or condition, geographic area or single insurer data. In addition, they may represent only one aspect of care, such as cost, or focus on limited quality metrics.

Other obstacles and challenges to quality measurements and reporting include difficulty collecting certain type of surgical/clinical outcomes data from administrative data or billing systems; limited ability to collect accurate process and outcomes data, which may lead to inappropriate categorization of providers and adverse healthcare decisions by other stakeholders; and limited ability of many organizations to adjust for patient risk factors, which may lead to some providers avoiding certain procedures on the sickest patients.

These limitations and concerns have prompted some efforts to standardize the public reporting of healthcare data, including the development of principles to guide organizations involved in collecting and reporting of these data. These principles, such as those developed by the Ambulatory Quality Alliance, include the following:

- Standardized measures when available;
- Transparent measures, methods and performance targets;
- A contextual framework to accompany the report; and,
- Timely and ongoing evaluation of reports.

In addition, recent literature has underscored that the key to successful reporting of quality measures includes an organization's commitment to performance measurement and public reporting; reliable, accurate, valid and comprehensive quality measures; assurance that quality measurement does not burden organizations; and continuous evolution of data sources and measurement systems.

To this end, the National Quality Forum (NQF) is an example of a collaborative effort, including the input of providers and other stakeholders, to standardize healthcare quality measurement and reporting. All measures are considered for NQF endorsement as voluntary consensus standards. Agreement around the recommendations is developed through NQF's formal Consensus Development Process. All measure development involves the active participation of representatives from across the spectrum of healthcare stakeholders and is guided by a Steering Committee. Recently, the NQF endorsed guidelines for consumer-focused public reporting, which is a guide for Internet-based reports to help provide accurate and dependable information about the quality of healthcare. Appendix 1 provides a more detailed description of NQF efforts and an example of a set of indicators developed through this process.



## II. AVAILABLE PUBLIC REPORTING VEHICLES IN TODAY'S HEALTHCARE ENVIRONMENT

Despite the recent developments and accomplishments, public reports, available in many shapes and sizes, are still in their infancy and are rapidly developing and continually evolving. But it is important that the provider community continues educating itself on existing public reporting programs and services and uses them, even if they are not perfect measurement systems.

The major existing services in reporting of healthcare data, categorized by the type of organizations developing them, include:

- **Federal Government** (e.g., U.S. DHHS *Nursing Home Compare* and Hospital Quality Alliance *Hospital Compare*, which includes performance measures from Surgical Care Improvement Project, approved by the NQF and adopted by the Hospital Quality Alliance; and CMS Physician Quality Reporting Initiative, which allows providers to submit data similar to *Hospital Compare* and receive a 1.5 percent bonus payment but does not report provider-specific data);
- **State Governments** (e.g., series of efforts by the New Jersey Department of Health and Senior Services in healthcare data transparency, quality and outcomes of care initiatives – including reports and Web pages for healthcare consumers);
- **Business Groups and Purchaser Coalitions** (e.g., Leapfrog Group patient safety standards and reports of hospital quality and outcome measures - city, state and regional coalitions of purchasers that obtain information about the quality and cost of care, and some post them publicly);
- **Health Insurance Companies** (e.g. BC/BS of Louisiana – some insurance companies keep quality and cost information in password-protected sites and release only to enrollees, while others post their reports on publicly available Web pages);
- **Professional Organizations** (e.g. the Joint Commission, which provides free resources for healthcare providers, researchers and professionals interested in tracking hospital performance across the country on various healthcare quality measures);
- **Consumer-Oriented Organizations and Foundations** (e.g., the Commonwealth Fund, which publicly reports healthcare data with a focus on consumers. Some of these reports cover mainly surgical care with no specific information on quality or cost metrics);
- **Healthcare Trade Associations** (e.g., NJHA/HRET *Comparative Clinical Outcomes Report* - trade organizations and other membership-based associations publicly reporting data on quality measures);
- **For-profit Businesses** (e.g., Consumers' Checkbook and HealthGrades – which process healthcare utilization data, ranks healthcare facilities and physicians and makes them available to providers and consumers for a fee);



- **For-profit Companies, Free Reports** (e.g., About.com's *UCompare* – provided alongside healthcare information for consumers);
- **Regional Value Exchanges** (e.g., Hospital Quality Alliance and HHS – formal collaborations among healthcare stakeholders by geographic area with a multi-stakeholder approach and a regional focus on quality and cost improvement through public transparency. The Wisconsin Collaborative for Healthcare Quality and Massachusetts Health Quality Partners are examples of these collaborative efforts that make healthcare data, mostly limited to chronic disease management and primary care physicians, available on their Web sites).

It should be noted that many data reports, such as those from health insurers, are developed and used strictly for internal quality improvement tracking purposes and are unavailable to the public. In addition, quality performance measures used by these data reports undergo continuous review by expert panels and are subject to changes following new evidence-based information and clinical research findings. For example, one of the acute myocardial infarction measures related to receipt of a beta-blocker within 24 hours after hospital arrival that was incorporated into the Joint Commission and Centers for Medicare and Medicaid Services (CMS) data reporting requirements in 2005 was reviewed in 2007 after concerns were raised about its contraindications. With the guidance of stakeholders including the National Quality Forum, the Hospital Quality Alliance, the American College of Cardiology and the American Heart Association, CMS and the Joint Commission announced the exclusion of this measure from their public reporting and data submission requirements effective April 1, 2009.

### **III. COMPENDIUM OF MAJOR PUBLIC REPORT CARDS ON HOSPITAL PERFORMANCE**

#### **A. The Compendium Purpose and Organization**

The following provides descriptive summaries of a selection of major report cards and public reporting services on healthcare. The information about these services, their scope and features were collected as part of an extensive study of the existing national and state-level public reporting bodies that publicly report data on hospital performance, processes and care outcomes.

The goal of this study was to compile all necessary information about the existing public reporting services to help New Jersey hospitals identify the major bodies/services that publicly report their process and outcomes data, determine the strengths and weaknesses of their reports, identify the most reliable report cards and establish processes to regularly monitor their reported data for benchmarking.

The following summaries of existing services are organized by type of organization as outlined in the previous section. These are just a sampling of the organizations releasing public reports. The summaries include: an overview of each program/service; the scope and performance targets; the measures reported; the sources of data and methodologies utilized for data collection, analysis and rate calculation; and the strengths and limitations of each service and the associated methodologies.

The best way to utilize these public reports is to integrate them into hospital quality improvement efforts. Specifically, hospitals can use them to: identify and target areas needing improvement in the quality of care provided or the process through which the care is delivered; benchmark their performance and outcomes compared to national and statewide rates, as well as rates for the various peer groups of hospitals; and use examples of especially good processes of care that can be used as a model to improve other processes.

## **B. Descriptive List of Major Services by the Type of Reporting Organization**

### **1. FEDERAL GOVERNMENT QUALITY REPORTING**

#### **Agency for Healthcare Research and Quality - *Quality Indicators***

##### **WHAT IS IT? WHAT MEASURES ARE REPORTED?**

The Agency for Healthcare Research and Quality (AHRQ) Quality Indicators (QI) are a family of measures that providers, policymakers and researchers can use with inpatient data to identify apparent variations in the quality of inpatient or outpatient care. These measures were prompted by requests for assistance from state-level data organizations and hospital associations with inpatient data collection systems. AHRQ developed a set of quality measures that required only the type of information found in routine hospital administrative data – diagnoses and major procedures, along with information on a patient’s age, gender, source of admission and discharge status.

These states are part of the Healthcare Cost and Utilization Project (HCUP), an ongoing federal–state–private sector collaboration to build uniform healthcare databases from administrative hospital-based data, as well as related software tools and products. HCUP databases bring together the data collection efforts of state data organizations, hospital associations, private data organizations and the federal government to create a national information resource of discharge-level healthcare data. All QI software and documentation is publicly available at no charge from the AHRQ QI Web site, [www.qualityindicators.ahrq.gov](http://www.qualityindicators.ahrq.gov).

AHRQ developed measures, called the HCUP Quality Indicators, to take advantage of a readily available data source – administrative data based on hospital claims – and quality measures that had been reported elsewhere, organized under four domains: Prevention Quality Indicators; Inpatient Quality Indicators; Patient Safety Indicators; and Pediatric Quality Indicators. The 33 HCUP QIs include measures for avoidable adverse outcomes, such as in-hospital mortality and complications of procedures; use of specific inpatient procedures thought to be overused, underused or misused; and ambulatory care sensitive conditions. The QIs specifically include:

- Prevention Quality Indicators (released in 2001) or ambulatory care sensitive conditions – identify hospital admissions that evidence suggests could have been avoided, at least in part, through high-quality outpatient care.
  - Diabetes, short-term complications
  - Perforated appendicitis
  - Diabetes, long-term complications
  - Chronic obstructive pulmonary disease
  - Hypertension
  - Congestive heart failure
  - Low birth weight

- Dehydration
  - Bacterial pneumonia
  - Urinary infections
  - Angina without procedure
  - Uncontrolled diabetes
  - Adult asthma
  - Lower extremity amputations among patients with diabetes.
- Inpatient Quality Indicators (released in 2002) reflect quality of care inside hospitals and include measures of utilization of procedures for which there are questions of overuse, underuse or misuse.

*Mortality Rates for Medical Conditions*

- Acute myocardial infarction (AMI)
- AMI, Without Transfer Cases
- Congestive heart failure
- Stroke
- Gastrointestinal hemorrhage
- Hip fracture
- Pneumonia

*Mortality Rates for Surgical Procedures*

- Esophageal resection
- Pancreatic resection
- Abdominal aortic aneurysm repair
- Coronary artery bypass graft
- Percutaneous transluminal coronary angioplasty
- Carotid endarterectomy
- Craniotomy
- Hip replacement

*Hospital-level Procedure Utilization Rates*

- Cesarean section delivery
- Primary Cesarean delivery
- Vaginal Birth After Cesarean (VBAC), Uncomplicated
- VBAC, All
- Laparoscopic cholecystectomy
- Incidental appendectomy in the elderly
- Bi-lateral cardiac catheterization

*Area-level Utilization Rates*

- Coronary artery bypass graft
- Percutaneous transluminal coronary angioplasty
- Hysterectomy
- Laminectomy or spinal fusion

*Volume of Procedures*

- Esophageal resection
- Pancreatic resection

- Abdominal aortic aneurysm repair
- Coronary artery bypass graft
- Percutaneous transluminal coronary angioplasty
- Carotid endarterectomy
- Patient Safety Indicators (released in 2003) reflect quality of care inside hospitals, by focusing on surgical complications and other iatrogenic events.

*Provider Level*

- Complications of anesthesia
- Death in low-mortality DRGs
- Decubitus ulcer
- Failure to rescue
- Foreign body left during procedure
- Iatrogenic pneumothorax
- Selected infections due to medical care
- Postoperative hip fracture
- Postoperative hemorrhage or hematoma
- Postoperative physiologic and metabolic derangements
- Postoperative respiratory failure
- Postoperative pulmonary embolism or deep vein thrombosis
- Postoperative sepsis
- Postoperative wound dehiscence
- Accidental puncture or laceration
- Transfusion reaction
- Birth trauma – injury to neonate
- Obstetric trauma – vaginal with instrument
- Obstetric trauma – vaginal without instrument
- Obstetric trauma – cesarean delivery.

*Area Level (modified to assess total incidence of adverse event within geographic areas)*

- Foreign body left during procedure
- Iatrogenic pneumothorax
- Selected infections due to medical care
- Postoperative wound dehiscence
- Accidental puncture or laceration
- Transfusion reaction
- Postoperative hemorrhage or hematoma.
- Pediatric Quality Indicators (released in 2006) reflect quality of care inside hospitals and identify potentially avoidable hospitalizations among children.

*Provider Level*

- Accidental puncture or laceration
- Decubitus ulcer
- Foreign body left during procedure
- Iatrogenic pneumothorax in neonates at risk
- Iatrogenic pneumothorax in non-neonates
- Pediatric heart surgery mortality
- Pediatric heart surgery volume

- Postoperative hemorrhage or hematoma
- Postoperative respiratory failure
- Postoperative sepsis
- Postoperative wound dehiscence
- Selected infections due to medical care
- Transfusion reaction

*Area Level*

- Asthma Admission Rate
- Diabetes Short-Term Complication Rate
- Gastroenteritis Admission Rate
- Perforated Appendix Admission Rate
- Urinary Tract Infection Admission Rate

Although administrative data cannot provide definitive measures of healthcare quality, they can be used to provide indicators of healthcare quality that can serve as the starting point for further investigation. The HCUP QIs have been used to assess potential quality-of-care problems and to delineate approaches for dealing with those problems. Hospitals with high rates of poor outcomes on the HCUP QIs have reviewed medical records to verify the presence of those outcomes and to investigate potential quality-of-care problems. For example, one hospital that detected high utilization rates for certain procedures refined patient selection criteria for these procedures to improve appropriate utilization.

The project took a multi-pronged approach to the identification, development and evaluation of QIs that included literature, clinician panels, expert coders and empirical analyses, including:

- Developing a conceptual framework and standardized definitions of commonly used terms;
- Evaluating the soundness of each indicator by using six areas of evidence: face validity (important aspect of quality and subject to provider or public health system control), precision (substantial amount of provider- or community-level variation that is attributable to random variation), minimum bias (little effect on the indicator of variations in patient disease severity and co-morbidities, or is it possible to apply risk-adjustment to remove these biases), construct validity (identifies true or actual quality of care problems), fosters real quality improvement, application (measure has been used effectively in practice);
- Searching literature to identify references relevant to potential indicators;
- Developing a candidate list of indicators by first reviewing the literature, then selecting a subset of indicators to undergo face validity testing by clinical panels using the RAND/UCLA Appropriateness Method; and,
- Conducting empirical analysis to explore the frequency and variation of the indicators, the potential bias, based on limited risk adjustment, and the relationship between indicators.

**WHEN DID THEY START?** In the early 1990s.

**FREQUENCY OF REPORT.** Each year since 2001, a new report has been released for a unique set of indicators.

## **METHODOLOGY**

### ***Sources of data***

The report uses discharge abstract data, specifically ICD-9-CM diagnosis and procedure codes, patient age, sex, diagnoses-related group (DRG) and date of procedure. AHRQ's Quality Indicators were applied to the HCUP hospital discharge data for several measures. The QIs rely solely on hospital inpatient administrative data and, for this reason, are screens for examining quality that may indicate the need for more in-depth studies.

### ***Risk adjustment / Statistical procedures to adjust data***

Identification of statistical issues included the following: age-gender adjustment for all indicators; severity/co-morbidity adjustment for the discharge-based indicators; and derivation of standard errors and appropriate hypothesis tests.

### ***Limitations***

Many important concerns cannot currently be monitored well using administrative data, such as adverse drug events, and using these data tends to favor specific types of indicators. For example, the Patient Safety Indicators contain a large proportion of surgical indicators, rather than medical or psychiatric, because medical complications are often difficult to distinguish from co-morbidities that are present on admission. In addition, medical populations tend to be more heterogeneous than surgical, especially elective surgical populations, making it difficult to account for case-mix. Panelists often expressed that indicators were more applicable to patient safety when limited to elective surgical admissions. However, the careful use of administrative data holds promise for screening to target further data collection and analysis. The ability to assess all patients at risk for a particular patient safety problem, along with the relative low cost, are particular strengths of these data sets.

Two broad areas of concern also hold true for these data sets, namely:

- Questions about the clinical accuracy of discharge-based diagnosis coding lead to concerns about the interpretation of reported diagnoses that may represent safety problems. Specifically:
  - Administrative data are unlikely to capture all cases of a complication, regardless of the preventability, without false positives and false negatives (sensitivity and specificity).
  - When the codes are accurate in defining an event, the clinical vagueness inherent in the description of the code itself (e.g., "hypotension"), may lead to a highly heterogeneous pool of clinical states represented by that code.
  - Incomplete reporting is an issue in the accuracy of any data source used for identifying patient safety problems, as medical providers might fear adverse consequences as a result of "full disclosure" in potentially public records such as discharge abstracts.



- The information about the ability of these data to distinguish adverse events in which no error occurred from true medical errors is limited. A number of factors, such as the heterogeneity of clinical conditions included in some codes, lack of information about event timing available in these data sets and limited clinical detail for risk adjustment, contribute to the difficulty in identifying complications that represent medical error or may be at least in some part preventable.

## **CMS-Hospital Quality Alliance - *Hospital Compare***

### **WHAT IS IT? WHAT MEASURES ARE REPORTED?**

The American Hospital Association (AHA), Federation of American Hospitals (FAH) and Association of American Medical Colleges (AAMC) launched the Hospital Quality Alliance (HQA), a national public-private collaboration to encourage hospitals to voluntarily collect and report hospital quality performance information.

This effort is intended to make important information about hospital performance accessible to the public and to inform and invigorate efforts to improve quality. The Centers for Medicare and Medicaid Services (CMS) and The Joint Commission participate in the HQA, along with the AHA, the FAH, the AAMC, the American Medical Association, the American Nurses Association, the National Association of Children's Hospitals and Related Organizations, American Association of Retired People, American Federation of Labor and Council of Industrial Organizations, the Consumer-Purchaser Disclosure Project, the Agency for Healthcare Research and Quality, the National Quality Forum, the Blue Cross and Blue Shield Association, the National Business Coalition on Health, General Electric and the U.S. Chamber of Commerce.

The CMS Hospital Compare Web site ([www.hospitalcompare.hhs.gov](http://www.hospitalcompare.hhs.gov)) reports quality information from U.S. hospitals on treatments for heart attack, heart failure, pneumonia and surgical care, including patients with Medicare and those who do not have Medicare. To increase hospital submission of this data, CMS offers hospitals monetary incentives as part of its quality improvement programs. Specifically, CMS links *Reporting Hospital Quality Data Annual Payment Update program* to the hospital Inpatient Prospective Payment System (IPPS). The hospitals that are subject to IPPS payment provisions must collect and submit quality data to receive their full IPPS annual payment update. IPPS hospitals that fail to report the required quality measures may receive an annual payment update that is reduced by 2.0 percentage points. There is no incentive payment for non-IPPS hospitals, such as Critical Access Hospitals, since they are not paid under the IPPS. These hospitals may voluntarily participate in CMS surveys on patient experience of care - Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS).

Consumers can use Hospital Compare to compare care of local hospitals to state and national averages. A general search of the Web site provides information on: Hospital Process of Care Measures; Hospital Outcome of Care Measures; and Survey of Patients' Hospital Experiences. The public can also search by a specific medical condition or surgical procedure, which provides information on: Hospital Process of Care Measures and Hospital Outcome of Care Measures, where applicable; Survey of Patients' Hospital Experiences and Medicare Payment and Volume.

Hospital Compare measures include:

- Acute myocardial infarction (AMI)/heart attack
  - Inpatient setting*
  - Aspirin at arrival
  - Aspirin at discharge

- Beta blocker at arrival \*
- Beta blocker at discharge
- Angiotensin converting enzyme (ACE) inhibitor or angiotensin receptor blocker (ARB) for left ventricular systolic dysfunction (LVSD)
- Smoking cessation advice/counseling
- Thrombolytic medication received within 30 minutes of arrival
- Percutaneous Coronary Intervention (PCI) received within 90 minutes of arrival
- 30-day mortality rate

*Outpatient setting*

- Aspirin at arrival for patients treated in the emergency department (ED) and then transferred
- Median time from arrival to fibrinolysis for patients treated in the ED and then transferred
- Fibrinolytic therapy received within 30 minutes of arrival for patients treated in the ED and then transferred
- Median time from arrival to electrocardiogram (ECG) for patients treated in the ED and then transferred
- Median time from ED arrival to transfer for PCI

■ Heart failure

*Inpatient setting*

- left ventricular systolic function evaluation
- ACE inhibitor or ARB for LVSD
- Discharge instructions received
- Smoking cessation advice/counseling
- 30-day mortality rate

■ Pneumonia

*Inpatient setting*

- Initial antibiotic(s) received within 6 hours of arrival
- Oxygenation assessment
- Pneumococcal vaccination
- Blood culture performed prior to administration of first antibiotic(s)
- Smoking cessation advice/counseling
- Received most appropriate antibiotic
- Influenza vaccination
- 30-day mortality rate

■ Surgical care improvement

*Inpatient setting*

- Prophylactic antibiotic(s) one hour before incision
- Prophylactic antibiotic(s) stopped within 24 hours after surgery
- Selection of antibiotic given to surgical patients
- Prophylaxis to prevent venous thromboembolism ordered
- Prophylaxis to prevent venous thromboembolism received
- Appropriate hair removal

- Cardiac surgery patients with controlled 6 a.m. postoperative serum glucose

*Outpatient setting*

- Timing of antibiotic prophylaxis
- Selection of prophylactic antibiotic – first or second generation cephalosporin

- Patient experience of care

*Inpatient setting* – Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey results using a standardized survey instrument and data collection methodology to measure patients’ perspectives on hospital care, on the following measures:

- Rating hospital overall (0 to 10)
- Recommending hospital to others (yes or no)
- Rating patient experience on seven domains (always, usually, sometimes, never):
  - Nurse communication (always, usually, sometimes, never)
  - Physician communication (always, usually, sometimes, never)
  - Staff responsiveness (always, usually, sometimes, never)
  - Pain management/control (always, usually, sometimes, never)
  - Communication about medications (always, usually, sometimes, never)
  - Cleanliness/quietness (yes or no)
  - Discharge information (yes or no)

- Pediatric asthma

*Inpatient setting*

- Use of relievers for inpatient asthma care
- Use of systemic corticosteroids for inpatient asthma care

**WHEN DID THEY START?** December 2002, with the Hospital Compare Web site kicking off in April 2005.

**FREQUENCY OF REPORT.** Available year round; data updated quarterly.

## **METHODOLOGY**

### ***Sources of data***

The data presented comes from hospitals that voluntarily submit these data from their medical records about the treatments their adult patients receive for specific conditions, including patients with Medicare and those who do not have Medicare. The clinical measures reported focus on heart attack, heart failure, pneumonia, asthma (children only) and surgical care improvement/surgical infection prevention. Each rate calculation is based on the hospital's relevant discharges.

The data collection approach is primarily retrospective. Secondary data analysis is completed using administrative and clinical data aggregated from patient records. Specifically, data sources for required data elements include administrative data, medical record documents and results of Consumer Assessment of Healthcare Providers and Systems (CAHPS) Hospital Surveys. Some hospitals may prefer to gather data concurrently by identifying patients in the population of interest. This approach provides opportunities for improvement at the point of care/service.

However, complete documentation includes the principal and other ICD-9-CM diagnosis and procedure codes, which require retrospective data entry.

Data is submitted to the QIO Clinical Data Warehouse either directly, using the CMS Abstraction and Reporting Tool (CART) at [www.QnetExchange.org](http://www.QnetExchange.org), or through a vendor. ORYX vendors and CART data submissions include auditing processes and edit checks, which assess whether data submitted is consistent with defined parameters for sample size, outliers and missing data. CMS intends to validate data submitted to the Warehouse for the HQA initiative. The validation process provides assurance that the hospital, or its designated agent, can accurately abstract medical records and accurately submit data to the QIO Clinical Data Warehouse.

Rates are calculated for individual hospitals, and national and state averages are calculated for comparison and benchmarking.

***Risk adjustment / Statistical procedures to adjust data***

CMS does a “patient-mix” adjustment and specifies the following in the modeling of HCAHPS data for reporting: age; education attainment; self-reported health; service line; emergency department admission; percentile response order; language other than English; and age by service line interaction.

***Limitations***

Although data submission to Hospital Compare is subject to auditing procedures and edit checks, only a random sample of five medical records across all topics from each quarter of data submitted are selected for each hospital for review, regardless of the number of cases submitted. This small sample size may be insufficient for validation of the data. In addition, due to the nature of data collection processes on Hospital Compare, some concerns have been reported on its data consistency and accuracy, as reported rates vary based on how the hospital had submitted the data. A rate may be based on the total number of cases treated by a hospital, or may be based on a random sample of the treated cases for a facility with a large caseload.

Furthermore, Hospital Compare reports only acute care and critical access hospital data; long-term acute and acute rehabilitation hospitals are not eligible to report data. However, unlike acute care hospitals, critical access hospitals do not receive any financial incentive to report data. They, therefore, have the option to submit data for any or all of the measures and can elect to withhold the data from display on Hospital Compare. This may create additional inconsistency in the collected data and reported rates. Variation may also exist in the assignment of ICD-9 CM codes; therefore coding practices may require additional evaluation to ensure consistency.

Furthermore, please note the HCAHPS is a relatively new survey and hospitals across the U.S. are not yet completely on board with all data collection requirements and therefore may not have achieved very high scores across all of the questions. The HCAHPS data collected in 2009 and 2010 may reflect hospital experience of patients more objectively and accurately.

## **U.S. Department of Health and Human Services Measure Inventory**

### **WHAT IS IT? WHAT MEASURES ARE REPORTED?**

The U.S. Department of Health and Human Services (HHS) Measure Inventory tool provides the public an inventory of the measures that are currently used for reporting, payment or quality improvement by the Divisions in HHS. This inventory includes a comprehensive list of numerous quality measures used by the Department. The inventory, posted in a single location, is intended to help providers, patients, clinicians and others navigate the growing list of report cards and other quality measures.

The inventory is available at the National Quality Measures Clearinghouse, a Web site of the Agency for Healthcare Research and Quality designed as a public repository of evidence-based quality measures and measure sets. Ten different HHS agencies provide data reports to the effort, including: Administration on Aging, AHRQ, Centers for Disease Control and Prevention, Centers for Medicare and Medicaid Services, Health Resources and Services Administration, Indian Health Service, Office of Public Health and Science, National Institutes of Health, Substance Abuse and Mental Health Services Administration and Office of the National Coordinator for Health Information Technology.

The measures can be sorted by agency or operating division, condition, setting or measure domain and can be downloaded in their entirety.

**WHEN DID THEY START?** November 2008.

Please check AHRQ Web site at [www.qualitymeasures.ahrq.gov](http://www.qualitymeasures.ahrq.gov) for quality measures inventory and see Appendix 4 for a comprehensive list of quality measures from agencies and divisions that provide data reports relevant to hospitals. The list of measures and divisions that are not directly related to hospital performance were excluded from this appendix.

## 2. STATE GOVERNMENT QUALITY REPORTING

### New Jersey Department of Health and Senior Services

#### *Health Care Quality Assessment – Hospital Performance Report*

##### **WHAT IS IT? WHAT MEASURES ARE REPORTED?**

*The New Jersey Hospital Performance Report* was created to provide hospital quality information to patients, their families and healthcare professionals. The information is designed to help consumers choose a hospital and make other decisions about their healthcare. The report includes four overall scores for how each hospital treats patients diagnosed with heart attack, pneumonia or heart failure and patients having surgery. Scores for individual measures are also provided.

The score for each measure reflects the percentage of eligible patients who received the correct treatment. Patients who should not receive the treatments due to their specific conditions are excluded from the measures.

The Report provides information on 23 measures within four categories – acute myocardial infarction (AMI or heart attack), pneumonia, heart failure and surgical care improvement (SCIP) – and include:

- Acute myocardial infarction (AMI)
  - Aspirin at arrival
  - Aspirin prescribed at discharge
  - Beta blocker at arrival \*
  - Beta blocker prescribed at discharge
  - ACEI/ARB for LVSD
  - Smoking cessation advice
  - PCI received within 90 minutes of hospital arrival
- Pneumonia
  - Oxygenation assessment
  - Pneumococcal vaccination
  - Initial antibiotic received within 6 hours of arrival
  - Initial antibiotic selection for PN immunocompetent ICU patient
  - Initial antibiotic selection for PN immunocompetent non-ICU patient
  - Blood cultures in emergency department
  - Smoking cessation advice
  - Influenza vaccination
- Surgical care improvement
  - Preventive antibiotic started
  - Appropriate antibiotic received
  - Preventive antibiotic stopped



- Venous thromboembolism (VTE) prophylaxis ordered
- VTE prophylaxis received
- Heart failure
  - LSV assessment
  - ACEI/ARB for LVSD
  - Discharge instructions
  - Smoking cessation advice

These measures were originally identified by the Joint Commission and the Centers for Medicare and Medicaid Services for reporting hospital quality.

**WHEN DID THEY START?** 2004 (earliest available online).

**FREQUENCY OF REPORT.** Annually.

## **METHODOLOGY**

### ***Sources of data***

All New Jersey general acute care hospitals and one specialized heart hospital are required to submit data on these measures to the Department through their Joint Commission vendors on a quarterly basis. Hospitals collect the basic information for each record by abstracting data from patient medical records and administrative databases. The data are transmitted to Joint Commission vendors, who process the data according to algorithms established by the Joint Commission to produce scores for each measure. Joint Commission vendors then transmit both the individual patient files and the hospital-level information to the Department. The Department summarizes the quarterly data and provides a summary report to each hospital for review. The Department also provides each hospital with a summary report for the full 12 months for review.

The rate for each quality measure represents the proportion of times that the hospital provided the appropriate care. The overall AMI, pneumonia, SCIP and heart failure scores for each hospital are summary measures of how frequently the hospital provided recommended care based on seven AMI measures, seven pneumonia measures, four SCIP measures and four heart failure measures, respectively.

### ***Risk adjustment / Statistical procedures to adjust data***

Each rate was calculated following methodology used by the Joint Commission. Each measure included only those patients who were eligible for that treatment or test. For example, patients with contraindications for aspirin were excluded from the aspirin at arrival and aspirin prescribed at discharge measures.

### ***Limitations***

See the description of the Joint Commission reporting, included under Professional Organizations section (page 28), for the limitations associated with the methodology utilized to collect and report these data. Because of the inclusion of new measures or changes in measure definitions, overall scores are not necessarily comparable to the overall scores from previous years. Caution should also be applied so that process measures are compared with process

measures and not with outcomes measures. In addition, analysis of the data should incorporate the proper distribution of the data and relevant statistical procedures. Using the wrong distribution will yield incorrect inferences about a hospital's level of care.

**New Jersey Department of Health and Senior Services**  
***Health Care Quality Assessment – Cardiac Surgery in New Jersey***

**WHAT IS IT? WHAT MEASURES ARE REPORTED?**

This report is developed by the DHSS' Office of Quality Assessment for patients and families of patients facing the possibility of coronary artery bypass graft (CABG) surgery. It provides mortality rates for the 17 New Jersey hospitals that perform cardiac surgery and the physicians performing this common cardiac surgical procedure. All data are risk-adjusted to give extra credit to hospitals and surgeons treating sicker patients. As part of the Department's continued effort to provide information to consumers, this report also includes – for the first time – information on hospital length of stay. The report provides risk-adjusted length of initial hospital stay for CABG surgery patients, by hospital and by eligible surgeon. Each year the findings are published in a cardiac surgery consumer report, which is available both in print and on the Web.

An important goal of this analysis is to give hospitals data they can use in assessing quality of care related to bypass surgery. There is strong evidence, from the handful of states with similar reports, that this information encourages hospitals to examine their procedures and make changes that can improve quality of care and, ultimately, save lives. Another goal of the report is to give patients and physicians information to use in discussing questions and issues related to bypass surgery.

**WHEN DID THEY START?** 1994.

**FREQUENCY OF REPORT.** Annually.

**METHODOLOGY**

***Sources of data***

New Jersey's 17 cardiac surgery hospitals are required to report data on each patient undergoing open heart surgery. Hospitals report demographic data on patients -- such as age, sex and zip code – as well as information on insurance coverage, name of hospital and surgeon. They also provide information on medical history and risk factors known to affect a patient's chance of surviving the operation. The DHSS uses this data to create risk-adjusted mortality rates for each hospital and surgeon performing CABG, one common type of open heart surgery.

The department's Open Heart Surgery Registry contains this patient-level data from 1994 to the present. In 2004, for example, the DHSS collected data on the 6,177 patients who had bypass surgery with no other major surgery during the same admission. This is the most recent year for which a complete, audited data set is available.

***Risk adjustment / Statistical procedures to adjust data***

All data have been “risk-adjusted,” which means that data were adjusted to take into account the patient’s health condition before surgery. This risk-adjustment allows for fair comparisons among hospitals and surgeons treating diverse patient populations.

***Limitations***

Surgeon-specific data are limited in most current public reports, mainly because detailed data about the care process and patient outcomes are difficult to collect from administrative data and billing systems. Most meaningful surgical data reflect the system in which care is delivered. Although this service has somewhat overcome this limitation through an additional separate patient-level data collection mechanism, it still does not have access to all detailed surgical data on each patient. In addition, the process for comprehensive cleanup and editing of collected data is very long and takes about two years. As a result, the reported data are relatively old.

In general and similar to other studies nationally and in other states, hospitals and surgeons that perform bypass surgery more frequently have lower patient mortality rates. New Jersey’s data also confirm this trend.

As an effort to reduce disparities in cardiac care, this report includes provision of cardiac services by minority populations. However, these data are limited, as they only cover African American/Black populations, while during recent years significant disparities have also been documented for other minority groups and specifically the Hispanic populations.

Given all these limitations, the users of the report should be cautioned that the data presented is not recommended to be used as the sole factor in making choices about hospitals.

### 3. BUSINESS GROUPS ON HEALTH AND PURCHASER COALITIONS

#### The Leapfrog Group

##### WHAT IS IT? WHAT MEASURES ARE REPORTED ON?

The Leapfrog Group is a consortium of Fortune 500 companies and other large private and public healthcare purchasers aimed at supporting informed healthcare decisions by those who use and pay for healthcare; and promoting high-value healthcare through incentives and rewards. Leapfrog is supported by the Business Roundtable, The Robert Wood Johnson Foundation, Leapfrog members and others. Leapfrog works to achieve its mission by publishing the results of its Hospital Survey, which assesses more than 1,300 hospitals' efforts to improve the safety, quality and efficiency of their care. The group also helps employer members either directly or through their health plans to provide incentives and rewards to best performing hospitals; and collaborates with other organizations to improve healthcare.

The Leapfrog Hospital Survey was designed to encourage transparency and easy access to healthcare information. Endorsed by the National Quality Forum, the survey rates hospitals across the country on a range of quality and safety practices, focusing in four critical areas:

- *Computer Physician Order Entry* - prescriptions and other physician orders are entered into computers and linked to medication error prevention software. The software is properly tested.
- *Evidence-Based Hospital Referral* – hospital sustains a good track record in performing high-risk deliveries and seven complex high-risk procedures, including coronary artery bypass graft, percutaneous coronary intervention, abdominal aortic aneurysm repair, aortic valve replacement, pancreatic resection, esophagectomy and bariatric surgery.
- *ICU Physician Staffing* – Specialists in the hospital intensive care units hold appropriate qualifications.
- *Leapfrog Safe Practices Score* - hospital implements 13 safety practices and policies established by the National Quality Forum to reduce harm and errors. The 13 safe practices include:
  - Creating and Sustaining a Culture of Safety (including leadership structures and systems, culture measurement for performance, teamwork training and skill building, and identification and mitigation of risks and hazards)
  - Informed Consent
  - Life-sustaining Treatment
  - Nursing Workforce
  - Communication of Critical Information
  - Labeling of Diagnostic Studies
  - Discharge Systems
  - Medication Reconciliation
  - Prevention of Aspiration and Ventilator-associated Pneumonia

- Central Venous Catheter-related Bloodstream Infection Prevention
- Hand Hygiene
- DVT/VTE Prevention
- Anticoagulation Therapy

Beginning in 2008, Leapfrog required hospitals to report their performance on process and resource utilization measures for acute myocardial infarction (AMI) and pneumonia and rates of two hospital-acquired conditions. Leapfrog ratings are posted on the Web site and are free to the public to aid them in their decisions about where to receive care.

Leapfrog uses the survey responses not only to educate and inform members about quality performance of their providers, but also as the primary data collection tool for the Leapfrog Hospital Rewards Program. This program measures hospital performance on a national scale to recognize and reward providers that have demonstrated excellence and maintained a record of high quality care. The Rewards Program focuses on several key clinical areas and care delivery components in the Hospital Survey for quality and resource utilization measures:

- Quality indicators show the extent to which hospital care matches evidence-based guidelines and achieves the desired outcomes.
- Resource Utilization indicators show the hospital's average length of stay, adjusted for risk and readmission rate, for selected clinical areas and procedures.
- Efficiency is denoted by a hospital's Quality score and Resource Utilization score. The efficiency score represents the intersection of Quality and Resource Utilization and is used to determine a hospital's reward level (*attainment category* – reserved for hospitals considered “top performers,” and *improvement category* – for hospitals that have not attained top-tier performance).

**WHEN DID THEY START?** The Leapfrog Group was founded in November 2000. The group began collecting data via the Leapfrog Hospital Survey in June 2001 and launched its Hospital Rewards Program in 2005.

**FREQUENCY OF REPORT.** Annually.

## METHODOLOGY

### *Sources of data*

Leapfrog provides reports on hospital performance data collected through the Leapfrog Hospital Survey. This survey includes four quality and safety practices that are proven to reduce preventable medical mistakes and are endorsed by the National Quality Forum. The Hospital Survey is a self-administered online instrument offered to designated regions around the country, referred to as “regional roll-out” areas, with special focus on acute-care facilities. These regions include: Alabama; Indiana; Northeast Ohio; Atlanta, Ga.; Iowa; Raleigh/Durham/Chapel Hill, N.C.; California; Kansas City, Mo.; St. Louis, Mo.; Central Florida; Maine; Savannah, Ga.; Cincinnati, Ohio; Massachusetts; Seattle, Wash.; Colorado; Memphis, Tenn.; Southeast Ohio; Columbus, Ohio; Metro New York City; Toledo, Ohio; Dallas-Fort Worth, Texas; Michigan; upstate South Carolina; Washington, DC/Baltimore; Minnesota; Virginia; East/Mid-Tennessee;

Nevada; western North Carolina; Greater Wash.; New Jersey; Western Oregon; Illinois; New York state; Wichita, Kan.; and Wisconsin. Other hospitals nationwide are also welcome to participate.

***Risk adjustment / Statistical procedures to adjust data***

The Leapfrog Hospital Survey data is risk-adjusted to account for patient comorbidities and patient demographics that cause systematic variation in the length of stay for that specific procedure or condition. Leapfrog uses risk-adjustment models to adjust length of stay developed by the Center for Health Systems Research and Analysis at the University of Wisconsin.

***Limitations***

The data is collected through hospital surveys and therefore is subject to all limitations of surveys as a means of data collection. The scoring algorithms to determine the hospital score on Leapfrog's four areas of focus for quality and safety practices, resource utilization and overall efficiency scores (fully meets standards, substantial progress, some progress, willing to report or declined to respond) are mainly based on self-reported responses to corresponding questions that may vary based on who completes the survey. Additional criteria may be needed for different hospital units that complete each section of the survey to ensure consistency and uniformity of responses across all units and hospitals around the country.



## **4. HEALTH INSURANCE COMPANIES**

### **Blue Cross Blue Shield Association**

#### **WHAT IS IT? WHAT MEASURES ARE REPORTED ON?**

The Blue Cross and Blue Shield Association (BCBSA) is a national federation of 39 independent, community-based and locally operated Blue Cross and Blue Shield companies. BCBSA has a series of quality improvement programs that encourage research on best practice models, change incentives to improve quality of care and promote health and wellness.

#### **Blue Distinction**

Blue Distinction is a national program that designates and awards best practice models as a way to help consumers find quality specialty care on a consistent basis, while enabling and encouraging healthcare professionals to improve the overall quality and delivery of care nationwide. At the core of the Blue Distinction effort are the Blue Distinction Centers for Specialty Care. These centers are comprised of hospitals and medical facilities that have demonstrated expertise in delivering quality healthcare in the areas of bariatric surgery, cardiac care, complex and rare cancers and transplants. The designation is based on objective, evidence-based thresholds for clinical quality, developed in collaboration with expert physicians and medical organizations. This recognition provides credible means of identifying hospitals that meet their individual healthcare needs for select procedures and conditions.

Selection is based on the following criteria categories:

- Patient Results (or Patient Outcomes)
  - Complication rates
  - Readmission rates
  - Mortality rates
- Treatment Expertise
  - Physician credentials
  - Dedicated team focused on providing the particular area of specialty care
  - Length of time a facility has performed a procedure
- Procedure Volume
  - Number of times a particular procedure has been completed
- Structure
  - Type of services provided (ER, diagnostic testing abilities)
  - Supporting departments (radiology, nutrition, social services, rehabilitation, etc.)
  - Use of clinical registry data systems
- Process
  - Use of evidence-based care (e.g. use of beta blockers or aspirin for cardiac patients, which typically results in better outcomes)
  - Systematic follow-up of patient results after procedures
  - Quality improvement processes

To date BCBSA has successfully identified more than 800 centers across the nation that meet the criteria – 416 cardiac centers, 236 bariatric surgery centers, 82 transplant centers and 90 complex and rare cancers centers. BCBSA recently launched its Blue Distinction Center Finder, a consumer-friendly tool for searching recognized specialty centers by geographical location.

BCBSA also developed the Blue Distinction Hospital Measurement and Improvement Program, designed to encourage the use of publicly available hospital performance data. This program was formed in partnership with participating Blue plans as a way to provide quality performance reports to hospitals and employers nationwide. Through this program the BCBSA integrates 27 hospital performance criteria from two public sources: clinical measures focusing on heart attacks, heart failure, pneumonia and surgical infection prevention from the Centers for Medicare and Medicaid Services (CMS) and patient safety indicator measures from the Agency for Healthcare Research and Quality (AHRQ). As part of this program, BCBSA contracted with WebMD Quality Services (formerly HealthShare Technology) to develop a flexible and user-friendly Web application integrating these measures for participating plans on a quarterly basis for use with their network hospitals and plans' accounts. The performance data provided through this program are not intended for use with consumers at this time.

#### Horizon Blue Cross Blue Shield of New Jersey Hospital Recognition Program

In addition to BCBSA's national efforts, state independent branches of Blue Cross Blue Shield have also developed their own programs for improving the quality of care and patient outcomes. Horizon's Hospitals Recognition Program is New Jersey's quality improvement program, designed for hospitals participating in the Horizon BCBSNJ network as a way to acknowledge best practices in the areas of patient safety, clinical outcomes and patient satisfaction. Through this program, hospitals in New Jersey with both high quality and safe patient outcomes may receive financial and public recognition from Horizon BCBSNJ on an annual basis. Hospitals can choose to participate in this program through one of two options: the Leapfrog Hospital Rewards Program (LHRP) or the Horizon Program Option.

In general, the Horizon BCBSNJ Hospital Recognition Program uses nationally recognized data sets for patient safety and clinical outcomes. Patient safety criteria are based on The Joint Commission national patient safety goals and the Institute for Healthcare Improvement's (IHI) 5 Million Lives Campaign. Clinical criteria are dependent on the option for submission. If submitting through the Horizon Program Option, data is based on the Centers for Medicare and Medicaid Services' process measures for heart attack, heart failure, community-acquired pneumonia and the prevention of surgical-site infections. If submitting through Leapfrog, data is based on their Hospital Rewards Program surveys and include process measures for coronary artery bypass graft, percutaneous coronary intervention, acute myocardial infarction, community-acquired pneumonia and deliveries/newborn care. The program also evaluates hospitals on patient satisfaction and administrative measures. Patient satisfaction is based on survey tools used by hospitals to comply with TJC measurement criteria. For each reporting period, participating hospitals receive detailed reports of their performance scores.

**WHEN DID THEY START?** The Blue Distinction Hospital Measurement and Improvement Program was launched in 2005, and the Blue Distinction Centers for Specialty Care began

recognizing hospitals as of 2006. In 2007, Horizon Blue Cross Blue Shield of New Jersey inaugurated its Hospital Recognition Program in New Jersey.

**FREQUENCY OF REPORT.** The Blue Distinction Hospital Measurement and Improvement Program reports are updated and provided to hospitals on a quarterly basis. The Horizon BCBSNJ Hospital Recognition Program report on hospital performance data annually.

## **METHODOLOGY**

### ***Sources of data***

To designate Blue Distinction centers, data is collected through the Blue Distinction Centers detailed clinical request for information (RFI) survey that examines structure, process and outcome measures for each type of targeted service. Facilities earning the Blue Distinction designation must reapply on a regular basis (typically every 18-36 months.)

The Blue Distinction Hospital Measurement and Improvement Program integrates 27 hospital performance criteria from two public sources: clinical measures focusing on heart attacks, heart failure, pneumonia and surgical infection prevention from the Centers for Medicare and Medicaid Services and patient safety indicator measures from the Agency for Healthcare Research and Quality.

Horizon BCBSNJ collects and evaluates data for its Hospital Recognition Program through two options, the Leapfrog Hospital Rewards Program and the Horizon Program Option. If submitting through LHRP, data is collected through a combination of the Leapfrog Hospital Quality and Safety Survey and the TJC ORYX Survey. Additional data for the LHRP “resource-use” measure are collected through UB-92 (recently updated to UB-04) forms. Hospitals performing at the top 25 percent for quality and resource-use measures will receive recognition. If submitting through the Horizon Program Option, patient safety and clinical data are collected through TJC, CMS, the New Jersey Infection Prevention Partnership, as well as hospitals that release IHI 5 Million Lives Campaign data and reports on internal patient satisfaction surveys. Hospitals’ performance on clinical indicators is compared against New Jersey and national averages. Hospitals performing above average receive recognition. Data is collected semi-annually, and hospital scores are based on two quarters of data.

### ***Risk adjustment / Statistical procedures to adjust data***

For risk adjustment information about Horizon’s BCBSNJ Hospital Recognition Program please see the description of Leapfrog reporting, included under Business Groups and Purchaser Coalitions section (page 22).

### ***Limitations***

The data on 27 process and patient safety indicators obtained from the CMS and AHRQ programs or those obtained from Leapfrog have the same limitations as the original data sources. These limitations have been described under the corresponding type of organization for each of these services.

## 5. PROFESSIONAL ORGANIZATIONS

### **The Joint Commission – *Improving America’s Hospitals: The Joint Commission’s Annual Report on Quality and Safety***

#### **WHAT IS IT? WHAT MEASURES ARE REPORTED?**

The Joint Commission has been working closely with clinicians, healthcare providers, hospital associations, performance measurement experts and healthcare consumers across the nation to identify the quality measures. This collaborative process has identified measures that reflect the best “evidence-based” treatments for heart attack, heart failure, pneumonia and surgical care patients. These measures are the product of The Joint Commission’s Hospital Core Measure Initiative that sought to create a set of standard national measures that would permit comparisons across organizations. Subsequently, The Joint Commission collaborated with other organizations, including the Centers for Medicare and Medicaid Services and the National Quality Forum (NQF), to align these measures with other measurement efforts to ease data collection efforts by hospitals and to ensure that the measure data were gathered and calculated in a consistent way in all organizations. These measures also are used for the Hospital Quality Alliance (HQA) initiative.

This report presents reliable information on how America’s accredited hospitals performed against evidence-based quality measures relating to the care of heart attack, heart failure, pneumonia and surgical patients. These measures include:

- Heart attack care composite
  - Providing aspirin at arrival
  - Prescribing aspirin at discharge
  - Prescribing ACE inhibitor/ARB at discharge
  - Providing smoking cessation advice
  - Prescribing a beta blocker at discharge
  - Prescribing a beta blocker at arrival \*
  - Providing fibrinolytic
- Heart failure care composite
  - Providing discharge instructions
  - Providing left ventricular function assessment
  - Providing smoking cessation advice
  - Prescribing ACE inhibitor/ARB at discharge
- Pneumonia care composite
  - Measuring oxygen in the bloodstream
  - Providing pneumococcal screening and vaccination
  - Taking a blood test before giving antibiotics
  - Taking a blood test before giving antibiotics in ICU

- Taking a blood test before giving antibiotics in ED
- Providing smoking cessation advice

Most of the measures of heart attack, heart failure and pneumonia care included in this report have been tracked since 2001, while the surgical care measures have been tracked since 2004. This report also includes performance results regarding compliance with the National Patient Safety Goals (NPSGs), portrays NPSG performance trends for the latest available years, identifies the top standards compliance issues and presents information about sentinel events. Sentinel events are preventable adverse events that result in serious injury or death. The report also includes a section that describes how to compare local hospital performance to national and state performance benchmarks at the Joint Commission's Quality Check Web site ([www.qualitycheck.org](http://www.qualitycheck.org)).

Quality Check data includes national rates, state rates and hospital rates at the measure level. Data can be analyzed in many ways. Comparisons can be made from the hospital to national/state level. Comparisons between hospitals can be made. Hospitals with known similar characteristics can have their rates combined and compared to various benchmarks, either provided by the Joint Commission data download or to an outside credible source. Valid comparisons must be consistent using the same measures.

**WHEN DID THEY START?** In 1994, The Joint Commission first published organization-specific Performance Reports. In 1996, Quality Check®, a directory of Joint Commission-accredited organizations and performance reports, became available on the Web site. In 2004, Quality Reports replaced Performance Reports, although historical Performance Reports are still available. In 2007, organizations not accredited by The Joint Commission were added to the Quality Check Web site. Most recently in April 2008, Quality Reports® for Joint Commission-certified disease-specific care programs and certified healthcare staffing firms were made available on Quality Check.

**FREQUENCY OF REPORT.** Annually.

## **METHODOLOGY**

### ***Sources of data***

The Joint Commission requires most hospitals to select three measure sets. Hospitals choose sets best reflecting their patient population and report on all the applicable measures in each of the sets they choose. Hospitals submit monthly data on all measures of performance within specific sets they choose to third-party vendors, which compile and provide data to The Joint Commission each quarter.

For each of the three measure sets tracked annually (heart attack care, heart failure care and pneumonia care), a composite measure is created. A composite measure is calculated by adding or “rolling up” the number of times recommended care was provided over all the process measures in the given measure set and dividing this sum by the total number of opportunities for providing this recommended care, determined by summing up all of the process measure populations for this same set of measures. The composite measure shows the percentage of the time that recommended care was provided.

Composite performance measures are useful in integrating performance measure information in an easily understood format that gives a summary assessment of performance for a given area of care in a single rate. The three composite measures in this report are based on combining all of the process rate-based measures in the measure set. For a performance measure, each patient identified as falling in the measure population can be considered an opportunity to provide recommended care.

***Risk adjustment / Statistical procedures to adjust data***

This report only includes data about patients considered “eligible” for one of the evidence-based treatments or measures. This information describes the kinds of patients whose results are excluded from this report’s data. Not every patient gets – or should get – a treatment. Often, patients have healthcare conditions or factors that influence the effectiveness of treatments, or whether or not a provider orders a particular treatment. Also, a patient may choose to refuse treatment or not follow the instructions of his or her care plan.

***Limitations***

Proper care needs to be taken into consideration when analyzing Quality Check data. Analysis of the data should incorporate the proper distribution of the data and relevant statistical procedures. Using the wrong distribution will yield incorrect inferences about a hospital’s level of care. Another source of error is to use different measures in making comparisons from one hospital to another. Caution should be applied so that process measures are compared with process measures and not with outcomes measures.

## 6. CONSUMER-ORIENTED ORGANIZATIONS AND FOUNDATIONS

### The Commonwealth Fund - *Why Not the Best?*

#### WHAT IS IT? WHAT MEASURES ARE REPORTED ON?

WhyNotTheBest.org is a free online resource for healthcare providers, researchers and professionals interested in tracking performance of hospitals across the country on various measures of healthcare quality. This site was created by the Commonwealth Fund and offers its audience the opportunity to conduct side-by-side comparisons of more than 4,500 hospitals nationwide, track performance over time against numerous benchmarks and download case studies and tools used by the nation's top performing hospitals to improve the delivery of healthcare and increase patient satisfaction. WhyNotTheBest.org uses performance data reported publicly on the Centers for Medicare and Medicaid Services Web site, Hospital Compare. This performance data is stratified by a number of hospitals characteristics, including type of facility (safety net hospitals, teaching hospitals and academic health centers), region, ownership and size (number of beds) and measures performance against top performers, state and national averages.

This online resource reports on summary performance scores for 24 Hospital Quality Alliance measures that identify how often hospitals delivered recommended care processes for the following conditions: heart attack, heart failure, pneumonia and surgical care improvement. In addition, the site also reports on summary scores for 10 measures from the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS). These measures include:

- Heart Attack Care
  - Heart attack patients given aspirin at arrival
  - Heart attack patients given aspirin at discharge
  - Heart attack patients given ACE inhibitor or ARB for left ventricular systolic dysfunction (LVSD)
  - Heart attack patients given smoking cessation advice/counseling
  - Heart attack patients given beta blocker at discharge
  - Heart attack patients given beta blocker at arrival \*
  - Heart attack patients given fibrinolytic medication within 30 minutes of arrival
  - Heart attack patients given PCI within 90 minutes of arrival
- Pneumonia Care
  - Pneumonia patients given oxygenation assessment
  - Pneumonia patients assessed and given pneumococcal vaccination
  - Pneumonia patients whose initial emergency room blood culture was performed prior to the administration of the first hospital dose of antibiotics
  - Pneumonia patients given smoking cessation advice/counseling
  - Pneumonia patients given initial antibiotics within 4 hours after arrival
  - Pneumonia patients given initial antibiotics within 6 hours after arrival
  - Pneumonia patients given the most appropriate initial antibiotics
  - Pneumonia patients assessed and given influenza vaccination



- Heart Failure Care
  - Heart failure patients given discharge instructions
  - Heart failure patients given an evaluation of left ventricular systolic (LVS) function
  - Heart failure patients given ACE inhibitor or ARB for left ventricular systolic dysfunction
  - Heart failure patients given smoking cessation advice/counseling
- Surgical Care Improvement
  - Surgery patients who received preventative antibiotics one hour before incision
  - Surgery patients who received the appropriate preventative antibiotics for their surgery
  - Surgery patients whose preventive antibiotics are stopped within 24 hours after surgery
  - Surgery patients whose doctors ordered treatments to prevent blood clots (venous thromboembolism) for certain types of surgeries
  - Surgery patients who received treatment to prevent blood clots within 24 hours before or after selected surgeries to prevent blood clots
- Hospital Patient Satisfaction (HCAHPS)

WhyNotTheBest.org uses top performing hospitals as a benchmark for comparing the performance of other hospitals nationwide. Top performers are identified as hospitals obtaining a high summary score on their reported data for all measures and ranking on the top 1 percent of performers. These hospitals must have recorded data on at least 30 patients for each of the four conditions. In addition, they must have achieved a composite score of 9 or 10 on the HCAHPS survey question of overall hospital care. The site uses the results of the following question as a measure of patients' overall satisfaction: *"Using any number from 0 to 10, where 0 is the worst hospital possible and 10 is the best hospital possible, what number would you use to rate this hospital during your stay?"* The site also includes other benchmarks including the top 10 percent, top 25 percent, middle 50 percent, and bottom 25 percent hospital performers.

**WHEN DID THEY START?** December 11, 2008.

**FREQUENCY OF REPORT.** Quarterly (updated four times a year).

## **METHODOLOGY**

### ***Sources of data***

WhyNotTheBest.org uses performance data reported on the Centers for Medicare and Medicaid Services Web site, Hospital Compare. Hospital Compare includes information about 4,500 hospitals nationwide on different process-of-care measures. Specifically, WhyNotTheBest.org reports on summary scores of 24 Hospitals Quality Alliance measures and 10 measures from HCAHPS, a survey that asks a random sample of recently discharged patients about important aspects of their hospital experience. To create summary scores for each condition, the site uses a methodology prescribed by the Joint Commission. The summary score was based on the number of times a hospital performed the appropriate action across all measures for that condition, divided by the number of opportunities the hospital had to provide appropriate care for that

condition. Summary scores are not calculated if a hospital did not report on all the measures for each condition and did not have at least 30 patients for at least one of the measures for each condition. The site does not apply any exclusion criteria to create performance rankings based on HCAHPS data. All hospitals are included in these calculations.

***Risk adjustment / Statistical procedures to adjust data***

This online resource does not use any process to weigh scores or risk-adjust its reported measures, since reports are of process measures versus outcome measures. Higher-occurring cases contribute more weight to the calculation of the mean for that measure.

***Limitations***

The data on process and patient safety indicators and patient satisfaction measures have been obtained from the CMS' HOA and the HCAHPS programs. The same limitations are, therefore, applied to the data reported from these sources by the Commonwealth Fund. These limitations have been described under the corresponding type of organization for each of these services. Please note the HCAHPS is a relatively new survey and hospitals across the United States are not yet completely on board with all data collection requirements and therefore may not have achieved very high scores across all of the questions. The HCAHPS data collected in 2009 and 2010 may reflect hospital experience of patients more objectively and accurately.

## **7. HEALTHCARE TRADE ASSOCIATIONS**

### **New Jersey Hospital Association / Heath Research and Educational Trust of New Jersey *Comparative Clinical Outcomes Report***

#### **WHAT IS IT? WHAT MEASURES ARE REPORTED?**

The *Comparative Clinical Outcomes Report* was developed by the Health Research and Educational Trust of New Jersey (HRET), a nonprofit affiliate of NJHA, as a performance improvement tool to assist New Jersey hospitals in identifying opportunities to improve the quality of care rendered to their communities, as well as helping them in overall outcome measures reporting and statewide benchmarking. Specifically, hospitals can use this report to: identify and target areas needing improvement in the quality of care provided or the process through which the care is delivered; benchmark their performance and outcomes compared to statewide rates, as well as rates for the various peer groups of hospitals; use examples of especially good processes of care as a model to improve other processes; and highlight areas needing improvement in coding procedures and development of consistent coding and documentation guidelines.

This report provides hospital process and outcomes rates on the following topics:

- Primary Cesarean Sections
- Vaginal Births After Cesarean Section (VBACs)
- Myocardial Infarction (MI) Mortality
- Heart Failure Mortality
- Pneumonia Mortality
- Postoperative Infections for Surgical Inpatients

The topics are selected from a variety of sources, including the National Hospital Quality Measures (NHQM) – the Centers for Medicare and Medicaid Services (CMS) and The Joint Commission (TJC's) required surgical infection prevention measures, the Agency for Healthcare Research and Quality (AHRQ's) Inpatient Quality Indicators and Patient Safety Indicators and the QuadraMed performance measures.

The report provides data only for NJHA member acute care hospitals and includes actual rates on each topic for three to five years of data, as well as risk-adjusted predicted rates for the most current year. This allows examination of rate variation across time for each hospital as well as across hospitals at each point in time.

The report is distributed to hospital CEOs and directors of quality. NJHA/HRET's Boards of Trustees also have approved plans for public reporting of N.J. hospitals' performance data. Starting 2007, NJHA hosted a Web site for this purpose with initial posting of hospital data on measures reported through CCOR. Other indicators will be added as identified and needed.

**WHEN DID THEY START?** Following recommendations from NJHA's Data Task Force of the Committee on Managed Care in 1994, NJHA convened a group with representatives from member hospitals to begin work on the production of a report card. The report card concept turned into a performance improvement tool, *Hospital Performance Research Initiative: Clinical Outcomes Reports*, produced by HRET in April of 1995 and was initially provided in confidential format.

**FREQUENCY OF REPORT.** Annually.

## **METHODOLOGY**

### ***Sources of data***

The data presented in this report are derived from the UB-92 data collected by the New Jersey Discharge Data Collection System (NJDDCS), which contains all patient demographics and clinical and financial/billing information uniformly collected by all N.J. acute care hospitals on all inpatient discharges and sent to the New Jersey Department of Health Senior Services (NJDHSS).

To meaningfully analyze the data for patients treated in N.J. hospitals, HRET utilizes a subset of data available from the *QuanTIM Performance Measurement System* (formerly marketed as *CORE Plus*), a clinical outcome evaluation system developed jointly by QuadraMed and NJHA. The *QuanTIM Performance Measurement System* meets all current and future criteria for inclusion on the list of measurement systems acceptable to meet ORYX requirements of TJC. *QuanTIM Performance Measurement System* is committed to developing and embedding core measures for ORYX once they are identified.

### ***Risk adjustment / Statistical procedures to adjust data***

Statistical risk-adjustment is used to account and control for situations that different patients with the same diagnosis may have additional conditions or characteristics that impact how they respond to treatment. Using risk-adjustment methods, mostly a stepwise logistic regression procedure, analysts can more accurately compare patient outcomes. To maximize the consistency of data reported with existing nationally reported data, TJC's risk-adjustment models were used for two indicators: MI Mortality and VBAC. These models are updated as TJC updates its models.

### ***Limitations***

It should be emphasized that the rates must be interpreted with caution, particularly in comparative analyses, due to the sensitivity of the data to coding variations within and between hospitals as well as the possibility of some methodological flaws. The methodology used to define clinical study topics is updated constantly and routinely improved based on changes in clinical technology and practice.

## 8. FOR-PROFIT BUSINESSES

### **HealthGrades: *Hospital Quality in America Study***

#### **WHAT IS IT? WHAT MEASURES ARE REPORTED?**

HealthGrades is a healthcare ratings organization, providing ratings and profiles of hospitals, nursing homes and physicians to consumers, corporations, health plans and hospitals. HealthGrades has studied and measured the quality of care at the nation's 5,000 plus hospitals and published the results of its annual research on the Web to assist consumers in choosing a hospital. The *Ninth Annual HealthGrades Hospital Quality in America Study* objective is to identify, quantify and report trends in the quality of more than 5,000 hospitals nationwide.

HealthGrades uses a two-part study: The first analyzed more than 41 million Medicare discharges from every U.S. hospital from 2005 through 2007 associated with 27 diagnoses and procedures by using a star rating system that can be easily interpreted by users. The diagnoses and procedures covered by this study include:

- Bowel obstruction
- Chronic obstructive pulmonary disease
- Coronary bypass surgery
- Coronary interventional procedures (angioplasty/stent)
- Diabetic acidosis and coma
- Gastrointestinal bleed
- Gastrointestinal surgeries and procedures
- Heart attack (acute myocardial infarction)
- Heart failure
- Pancreatitis
- Pneumonia
- Pulmonary embolism
- Resection/replacement abdominal aorta
- Respiratory failure
- Sepsis
- Stroke
- Valve replacement surgery

The second part of the study assessed quality differences between 1-, 3- and 5-star rated hospitals by analyzing the in-hospital mortality rates for more than 11 million Medicare discharges associated with 17 diagnoses and procedures. The study also evaluated the performance of individual states and regions across eight service areas: cardiac surgery, coronary interventional procedures, critical care, gastrointestinal services, heart attack treatment, heart failure, pulmonary care and stroke care. State and regional performance was benchmarked against the national average and against the best-performing hospitals.

**WHEN DID THEY START? 1998.**

**FREQUENCY OF REPORT.** Annually.

## **METHODOLOGY**

### ***Sources of data***

Ideal measures will demonstrate a strong link to outcomes; provide actionable information; target those populations at high risk for poor quality of care; allow for patient exceptions that do not reflect differences in quality; include adequate risk adjustment; and be feasible to implement.

HealthGrades analyzes patient outcomes data for virtually every hospital in the country using initial data purchased from the Centers for Medicare and Medicaid Services. The Medicare data (MedPAR file) from CMS contains the inpatient records for Medicare patients and analyzed inpatient data provided by 17 states that provide all-payer data (Arizona, California, Florida, Iowa, Massachusetts, Maryland, Maine, New Jersey, Nevada, Oregon, Pennsylvania, Texas, Utah, Virginia, Washington and Wisconsin). Specifically:

- MedPAR includes virtually every hospital in the country with the exception of military and Veteran Administration hospitals;
- Hospitals were required by law to submit complete and accurate information with substantial penalties for those that report inaccurate or incomplete data; and,
- The Medicare population represented a majority of the patients for almost all of the clinical categories studied.

Data excludes a limited number of cases because they were inappropriate for inclusion in the database or miscoded. Patient records were excluded for the following reasons:

- Under the age of 65;
- Left the hospital against medical advice or who were transferred to another acute care hospital;
- Discharged alive with a length-of-stay that is inconsistent with the reasons for admission;
- Still in the hospital when the Medicare claim was filed; and,
- Invalid gender.

### ***Risk adjustment / Statistical procedures to adjust data***

The risk-adjustment methodology considers important differences in patient demographic and clinical characteristics. The risk adjustment methodology used by HealthGrades defines risk factors as those clinical and demographic variables that influence patient outcomes in significant and systematic ways. Risk factors may include age, gender, source of admission, specific procedure performed and co-morbid conditions such as hypertension, chronic renal failure, heart failure and diabetes.

Developing the HealthGrades ratings involved four steps for each cohort (e.g., coronary bypass surgery) and quality measure (e.g., in-hospital mortality).

- First, the predicted value (predicted number of deaths or complications at each hospital) was obtained using logistic regression models discussed in the next section.

- Second, the predicted value was compared with the actual, or observed, value (actual number of deaths or complications at each hospital). Any hospital that did not have at least 30 cases across three years of data was removed, and any hospital that did not have at least five cases in the most current year was removed.
- Third, a test was conducted to determine whether the difference between the predicted and actual values was statistically significant. This test was performed to make sure that differences were very unlikely to be caused by chance alone.
- Fourth, a star rating was assigned based on the outcome of the statistical test.

### ***Limitations***

The models are limited by the following factors:

- Cases may have been coded incorrectly or incompletely by the hospital.
- The models can only account for risk factors that are coded into the billing data - if a particular risk factor was not coded into the billing data, such as a patient's socioeconomic status and health behavior, then it was not accounted for with these models.
- Although HealthGrades has taken steps to carefully compile these data using its methodology, no techniques are infallible, and therefore some information may be missing, outdated or incorrect.

Please note that a high ranking for a particular hospital is not a recommendation or endorsement by HealthGrades of a particular hospital; it means that the data associated with a particular hospital has met the foregoing qualifications. Only individual patients can decide whether a particular hospital is suited for their unique needs.

Also note that if more than one hospital reported to CMS under a single provider ID, HealthGrades analyzed patient outcome data for those hospitals as a single unit. Throughout this document, therefore, “hospital” refers to one hospital or a group of hospitals reporting under a single provider ID.

# **APPENDICES**



## APPENDIX 1.

**Table 1: Major Public Reporting Systems in Healthcare, by Measures Reported**  
**PROCESS MEASURES**

INDICATOR	REPORTING SYSTEM *						
	AHRQ	CMS–HQA	NJDHS–HCQA	Horizon BCBS	Joint Comm	CMWF	NJHA/HRET
<b>Acute myocardial infarction (AMI) - Inpatient</b>							
Aspirin at arrival		✓	✓	✓	✓	✓	
Aspirin at discharge		✓	✓	✓	✓	✓	
Beta blocker at arrival **		✓	✓	✓	✓	✓	
Beta blocker at discharge		✓	✓		✓	✓	
ACE inhibitor or ARB for LVSD		✓	✓	✓	✓	✓	
Thrombolytic med. received within 30 minutes of arrival		✓		✓	✓	✓	
PCI received within 90 minutes of arrival		✓	✓	✓		✓	
Smoking cessation advice/counseling		✓	✓	✓	✓	✓	
<b>Acute myocardial infarction (AMI) - Outpatient (Patients treated in ED, then transferred)</b>							
Aspirin at arrival		✓					
Median time from arrival to fibrinolysis		✓					
Fibrinolytic therapy received within 30 minutes of arrival		✓					
Median time from arrival to ECG		✓					
Median time from ED arrival to transfer for PCI		✓					
<b>Heart failure - Inpatient</b>							
Left ventricular systolic function evaluation		✓	✓	✓	✓	✓	
ACE inhibitor or ARB for LVSD		✓	✓	✓	✓	✓	
Discharge instructions received		✓	✓	✓	✓	✓	
Smoking cessation advice/counseling		✓	✓	✓	✓	✓	
<b>Pneumonia - Inpatient</b>							
Oxygenation assessment		✓	✓	✓	✓	✓	
Pneumococcal vaccination		✓	✓	✓	✓	✓	
Blood culture performed prior to admin. of first antibiotic(s)		✓	✓	✓	✓	✓	
Initial antibiotic(s) received within 6 hours of arrival				✓		✓	
Initial antibiotic(s) received within 6 hours of arrival		✓	✓			✓	
Received most appropriate antibiotic		✓		✓		✓	
Initial antibiotic(s) selection for PN immunocompetent ICU patient			✓				
Initial antibiotic(s) selection for PN immunocompetent non-ICU patient			✓				
Smoking cessation advice/counseling		✓	✓	✓	✓	✓	
Influenza vaccination		✓	✓	✓		✓	
<b>Surgical care (improvement) - Inpatient</b>							
Prophylactic antibiotic(s) one hour before incision		✓	✓	✓		✓	
Prophylactic antibiotic(s) stopped w/in 24 hrs. after surgery		✓	✓	✓		✓	
Selection of (appropriate) antibiotic received		✓	✓	✓		✓	
Prophylaxis to prevent venous thromboembolism ordered		✓	✓			✓	
Prophylaxis to prevent venous thromboembolism received		✓	✓			✓	
Appropriate hair removal		✓					
Cardiac surgery patients with controlled 6 a.m. postoperative serum glucose		✓					
<b>Surgical care (improvement) - Outpatient</b>							
Timing of antibiotic prophylaxis		✓					
Selection of prophylactic antibiotic - first or second generation cephalosporin		✓					
<b>Pediatric Asthma - Inpatient</b>							
Use of relievers for inpatient asthma care		✓					
Use of systemic corticosteroids for inpatient asthma care		✓					
<b>Other Procedure Utilization Rates</b>							
Cesarean section delivery	✓						
Primary Cesarean delivery	✓						✓
Vaginal Birth After Cesarean (VBAC), Uncomplicated	✓						
VBAC, All	✓						✓
Laparoscopic cholecystectomy	✓						
Incidental appendectomy in the elderly	✓						
Bi-lateral cardiac catheterization	✓						
<b>HCAHPS - Inpatient Experience</b>		✓				✓	

\* The Leapfrog Group and Health Grades measures are not included due to their unique nature as ratings-based systems.

\*\* AMI Beta Blocker at Arrival measure will be excluded from CMS and Joint Commission public reports and data submission requirements as of April 1, 2009 due to evidence-based research findings indicating contraindications with this practice.

**Table 2: Major Public Reporting Systems in Healthcare, by Measures Reported  
OUTCOME MEASURES**

INDICATOR	REPORTING SYSTEM *						
	AHRQ	CMS-HQA	NJDHS-HCQA	Horizon BCBS	Joint Comm	CMWF	NJHA/HRET
<b>Medical Conditions - Mortality</b>							
Acute myocardial infarction (AMI)	✓	✓†		✓			✓
AMI, without transfer cases	✓						
Congestive heart failure	✓	✓†					✓
Gastrointestinal hemorrhage	✓						
Hip fracture	✓						
Pneumonia	✓	✓†					✓
Stroke	✓						
<b>Surgical Procedures - Mortality</b>							
Esophageal resection	✓						
Pancreatic resection	✓						
Abdominal aortic aneurysm repair	✓						
Coronary artery bypass graft	✓						
Percutaneous transluminal coronary angioplasty	✓						
Carotid endarterectomy	✓						
Craniotomy	✓						
Hip replacement	✓						
<b>Iatrogenic Events</b>							
Accidental puncture or laceration **	✓						
Complications of anesthesia	✓						
Death in low-mortality DRGs	✓						
Decubitus ulcer **	✓						
Failure to rescue	✓						
Foreign body left during procedure **	✓						
Iatrogenic pneumothorax **	✓						
Postoperative hip fracture **	✓						
Postoperative hemorrhage or hematoma **	✓						
derangements **	✓						
Postoperative respiratory failure **	✓						
Postoperative pulmonary embolism or DVT **	✓			✓			
Postoperative sepsis **	✓			✓			✓
Postoperative wound dehiscence **	✓						
Selected infections due to medical care **	✓			✓			
Transfusion reaction **	✓						
Birth trauma - injury to neonate	✓						
Obstetric trauma - vaginal with instrument	✓						
Obstetric trauma - vaginal without instrument	✓			✓			
Obstetric trauma - cesarean delivery	✓						

\* The Leapfrog Group and Health Grades measures are not included due to their unique nature as ratings-based systems.

\*\* These measures are also reported separately as Pediatric Quality Indicators.

† Tracks and reports 30-day mortality rate.

## APPENDIX 2.

### NATIONAL QUALITY FORUM QUALITY STANDARDS AND MEASURES

In 1998, a Presidential Commission recommended the creation of a national forum in which healthcare's many stakeholders could, together, find ways to improve the quality and safety of American healthcare. This recommendation led to the creation of National Quality Forum, a private, not-for-profit, public benefit corporation established in 1999 to standardize healthcare quality measurement and reporting, using a formal consensus development process to review and endorse performance measures. By 2005, NQF had endorsed more than 200 consensus standards. The NQF publication, "Compendium 2000-2005," presents in one document all NQF-endorsed™ consensus standards in an easy-to-use sourcebook.

[\[http://www.qualityforum.org/publications/reports/compendium.asp\]](http://www.qualityforum.org/publications/reports/compendium.asp)

Of particular note is the 2002 National Quality Forum publication, *Serious Reportable Events in Healthcare: A Consensus Report*, and its 2006 update. In 2002, only a handful of states required the reporting of some types of healthcare errors, and no standardized list of reportable events existed. Today, numerous healthcare reporting systems are in operation, and a sizable number of states and governmental entities – collectively covering about 80 million lives – use the NQF-endorsed™ list of 28 serious reportable events as the backbone of their incident reporting systems. New Jersey requires the collection and reporting of these measures from all licensed healthcare facilities as part of its Patient Safety Act 2004 legislation. With the passage of the Patient Safety and Quality Improvement Act of 2005, there has been even greater emphasis on establishing reporting systems to enable national learning and patient safety improvement.

*Serious Reportable Events in Healthcare: A Consensus Report* is intended to identify a standardized list of events for mandatory public reporting, enhance systematic learning across healthcare organizations and systems and drive systematic national improvements in patient safety, based on what is learned both about the events and how to prevent their recurrence. The list includes 28 serious reportable events indicators, grouped into six categories as follows:

- Surgical
  - Surgery performed on the wrong body part
  - Surgery performed on the wrong patient
  - Wrong surgical procedure performed on a patient
  - Unintended retention of a foreign object in a patient after surgery or other procedure
  - Intraoperative or immediately postoperative death in an ASA Class I patient
- Product or device events
  - Patient death or serious disability associated with the use of contaminated drugs, devices or biologics provided by the healthcare facility
  - Patient death or serious disability associated with the use or function of a device in patient care in which the device is used or functions other than as intended
  - Patient death or serious disability associated with intravascular air embolism that occurs while being cared for in a healthcare facility

- Patient protection events
  - Infant discharged to the wrong person
  - Patient death or serious disability associated with patient elopement (disappearance)
  - Patient suicide, or attempted suicide, resulting in serious disability while being cared for in a healthcare facility
- Care management events
  - Patient death or serious disability associated with a medication error (e.g., errors involving the wrong drug, wrong dose, wrong patient, wrong time, wrong rate, wrong preparation or wrong route of administration)
  - Patient death or serious disability associated with a hemolytic reaction due to the administration of ABO/HLA-incompatible blood or blood products
  - Maternal death or serious disability associated with labor or delivery in a low-risk pregnancy while being cared for in a healthcare facility
  - Patient death or serious disability associated with hypoglycemia, the onset of which occurs while the patient is being cared for in a healthcare facility
  - Death or serious disability (kernicterus) associated with failure to identify and treat hyperbilirubinemia in neonates
  - Stage 3 or 4 pressure ulcers acquired after admission to a healthcare facility
  - Patient death or serious disability due to spinal manipulative therapy
  - Artificial insemination with the wrong donor sperm or wrong egg
- Environmental events
  - Patient death or serious disability associated with an electric shock while being cared for in a healthcare facility
  - Any incident in which a line designated for oxygen or other gas to be delivered to a patient contains the wrong gas or is contaminated by toxic substances
  - Patient death or serious disability associated with a burn incurred from any source while being cared for in a healthcare facility
  - Patient death or serious disability associated with a fall while being cared for in a healthcare facility
  - Patient death or serious disability associated with the use of restraints or bedrails while being cared for in a healthcare facility
- Criminal events
  - Any instance of care ordered by or provided by someone impersonating a physician, nurse, pharmacist or other licensed healthcare provider
  - Abduction of a patient of any age
  - Sexual assault on a patient within or on the grounds of a healthcare facility
  - Death or significant injury of a patient or staff member resulting from a physical assault (i.e., battery) that occurs within or on the grounds of a healthcare facility.

These indicators have been endorsed by NQF's voluntary consensus standards and were included in the list of events because they are:

- Of concern to both the public and healthcare professionals and providers;
- Identifiable, measurable and feasible to include in a reporting system;

- Of a nature such that the risk of occurrence is significantly influenced by the policies and procedures of the healthcare facility; and,
- Unambiguous, usually preventable, serious and any of the following:
  - Adverse; and/or
  - Indicative of a problem in a healthcare facility's safety system; and/or
  - Important for public credibility or public accountability.

NQF also has National Voluntary Consensus Standards publications recommending Performance Measures in more than 20 specific health issues or areas of care, as well as best practices and action plans.

The current NQF measures also were extensively reviewed and evaluated for their sustainability based on four sets of standardized criteria:

- Importance to measure and report – extent to which the specific measure focus is important to making significant gains in healthcare quality (safety, timeliness, effectiveness, efficiency, equity, patient-centeredness) and improving health outcomes for a specific high impact aspect of healthcare where there is a variation in or overall poor performance.
- Scientific acceptability of measure properties – extent to which the measure produces consistent (reliable) and credible (valid) results about the quality of care when implemented.
- Usability – extent to which the intended audience can understand the results of the measure and is likely to find them useful for decision making.
- Feasibility – extent to which the required data are readily available, retrievable and can be implemented for performance measurement.

The following is a list of NQF completed projects to date:

- National Voluntary Consensus Standards for Prevention and Care of Venous Thromboembolism (VTE)
- National Voluntary Consensus Standards for the Reporting of Therapeutic Drug Management Quality
- Home Health Care Patient Experience of Care Measures
- National Voluntary Consensus Standards for Hospital Care: Specialty Clinician Performance Measures
- Identifying Opportunities to Improve Transparency and Quality in Laboratory Medicine
- National Framework and Preferred Practices for Palliative and Hospice Care
- National Voluntary Consensus Standards for Hospital Care: Two Additional Priority Areas, 2005
- Standardizing a Patient Safety Taxonomy
- Hospital CAHPS®
- Pay for Performance Programs: Guiding Principles and Design Strategies - A National Summit
- Evidence-based Substance Abuse Treatment Practices - Workshop

- Voluntary Consensus Standards for Home Health Care
- Improving Patient Safety in Medication Use – Special Emphasis for Limited English Proficiency (LEP) and Low Literacy Populations
- Improving Patient Safety through Informed Consent for Patients with Limited Health Literacy
- Behavioral Healthcare Performance Measures Throughout Healthcare—Workshop
- Voluntary Consensus Standards for Cardiac Surgery
- ACE Inhibitors vs. ARBs Performance Measure - Workshop
- National Voluntary Consensus Standards for Ambulatory Care Quality: Measurement and Reporting – Phase I.

## APPENDIX 3.

### RESOURCES

#### *Web Sites*

U.S. Department of Health and Human Services .....	<a href="http://www.hhs.gov">www.hhs.gov</a>
<i>Measure Inventory</i> .....	<a href="http://www.qualitymeasures.ahrq.gov">www.qualitymeasures.ahrq.gov</a>
U.S. DHHS Agency for Healthcare Research and Quality.....	<a href="http://www.ahrq.gov/qual">www.ahrq.gov/qual</a>
<i>Quality Indicators</i> .....	<a href="http://www.qualityindicators.ahrq.gov">www.qualityindicators.ahrq.gov</a>
Hospital Quality Alliance .....	<a href="http://www.hospitalqualityalliance.org">www.hospitalqualityalliance.org</a>
<i>Hospital Compare</i> .....	<a href="http://www.hospitalcompare.hhs.gov">www.hospitalcompare.hhs.gov</a>
New Jersey Department of Health and Senior Services .....	<a href="http://www.state.nj.us/health">www.state.nj.us/health</a>
<i>Hospital Performance Report</i> .....	<a href="http://web.doh.state.nj.us/hpr">http://web.doh.state.nj.us/hpr</a>
<i>Cardiac Surgery in</i>	
<i>New Jersey</i> .....	<a href="http://www.state.nj.us/health/healthcarequality/cardiacsurgery.shtml">www.state.nj.us/health/healthcarequality/cardiacsurgery.shtml</a>
The Joint Commission .....	<a href="http://www.jointcommission.org">www.jointcommission.org</a>
<i>Improving America's Hospitals</i> .....	<a href="http://www.jointcommissionreport.org">www.jointcommissionreport.org</a>
The Commonwealth Fund.....	<a href="http://www.commonwealthfund.org">www.commonwealthfund.org</a>
<i>Why Not the Best?</i> .....	<a href="http://www.whynotthebest.org">www.whynotthebest.org</a>
New Jersey Hospital Association.....	<a href="http://www.njha.com">www.njha.com</a>
<i>Comparative Clinical Outcomes Report</i> .....	<a href="http://www.njha.com/research/clinicaloutcome.aspx">www.njha.com/research/clinicaloutcome.aspx</a>
HealthGrades.....	<a href="http://www.healthgrades.com">www.healthgrades.com</a>
<i>Hospital Quality in America Study</i> .....	
	<a href="http://www.healthgrades.com/media/dms/pdf/HealthGradesEleventhAnnualHospitalQualityStudy2008.pdf">www.healthgrades.com/media/dms/pdf/HealthGradesEleventhAnnualHospitalQualityStudy2008.pdf</a>
National Quality Forum .....	<a href="http://www.qualityforum.org">www.qualityforum.org</a>

## **APPENDIX 4.**

# **HHS Measure Inventory \***

*\* Measures not publicly reported by each division and not related to hospitals are excluded from this appendix.*



## HHS Measure Inventory

Measures not publicly reported by each division and not related to hospitals have been excluded.

Division	Measure Name	Condition	Domain	Care Setting	Numerator	Denominator	Data Source
AHRQ	Esophageal resection volume (IQI 1).	Cancer	Process	Hospital IP	Discharges, age 18 years and older, with ICD-9-CM codes of 424, 4240-4242, 425, 4251-4256, 4258-4259, or 426, 4261-4269 in any procedure field	Not applicable	Healthcare Cost and Utilization Project
AHRQ	Pancreatic resection volume (IQI 2).	Cancer	Process	Hospital IP	Discharges, age 18 years and older, with ICD-9-CM codes of 0066, 3601, 3602 or 3605 in any procedure field	Not applicable	Healthcare Cost and Utilization Project
AHRQ	Composite measure: Adults age 40 and over with diagnosed diabetes who received all (3) recommended services for diabetes in the calendar year (hemoglobin A1c measurement, dilated eye examination, and foot examination).	Diabetes	Process	Ambulatory	U.S. civilian noninstitutionalized adults age 40 and older with diabetes whose answers indicated they had at least 1 hemoglobin A1c measurement, a retinal eye examination, and a foot examination during the survey year	U.S. civilian noninstitutionalized adults age 40 and older with diabetes who answered the Diabetes Care Survey (DCS) questions and had valid, non-missing responses to all 3 questions with regard to the components of the composite measure	Medical Expenditure Panel Survey
AHRQ	Adults age 40 and over with diagnosed diabetes who received a hemoglobin A1c measurement in the calendar year.	Diabetes	Process	Ambulatory	U.S. civilian noninstitutionalized adults age 40 and older with diabetes who had a hemoglobin A1c test at least once in the survey year	U.S. civilian noninstitutionalized adults age 40 and older with diabetes who answered the Diabetes Care Survey (DCS) question: During the survey year, "How many times did a doctor, nurse, or other health professional check for glycosylated hemoglobin or 'hemoglobin A-one-C'?" Nonresponses and "Don't Know" responses were excluded	Medical Expenditure Panel Survey
AHRQ	Adults age 40 and over with diagnosed diabetes who had their blood cholesterol checked in the last 2 years.	Diabetes	Process	Ambulatory	U.S. civilian noninstitutionalized adults age 40 and older with diabetes who answered "Within the past year" or "Within the past 2 years" to the question	U.S. civilian noninstitutionalized adults age 40 and older with diabetes who answered the question "About how long has it been since you had your blood cholesterol checked by a doctor or other health professional?" Nonresponses and "Don't Know" responses were excluded.	Medical Expenditure Panel Survey
AHRQ	Adults age 40 and over with diagnosed diabetes who received a dilated eye examination in the calendar year.	Diabetes	Process	Ambulatory	U.S. civilian noninstitutionalized adults age 40 and older with diabetes who indicated they had at least 1 retinal eye examination in target period (depending on panel).	U.S. civilian noninstitutionalized adults age 40 and older with diabetes who answered a question about eye examinations in the survey years (see Comments section for details). Nonresponses and "Don't Know" responses were excluded.	Medical Expenditure Panel Survey
AHRQ	Adults age 40 and over with diagnosed diabetes who had their feet checked for sores or irritation in the calendar year.	Diabetes	Process	Ambulatory	U.S. civilian noninstitutionalized adults age 40 and older with diabetes who had a foot examination 1 or more times in the survey year	U.S. civilian noninstitutionalized adults age 40 and older with diabetes who answered the question: "During [the survey year], How many times did a health professional check your feet for any sores or irritations?" Nonresponses and "Don't Know" responses were excluded.	Medical Expenditure Panel Survey
AHRQ	Uncontrolled diabetes admission rate (PQI 14).	Diabetes	Outcome	Ambulatory	All non-maternal discharges of age 18 years and older with ICD-9-CM principal diagnosis code for uncontrolled diabetes, without mention of a short-term or long-term complication	Population in metro area or county, age 18 years and older	Healthcare Cost and Utilization Project
AHRQ	Diabetes short-term complications admission rate (PQI 1).	Diabetes	Outcome	Ambulatory	All non-maternal/non-neonatal discharges of age 18 years and older with ICD-9-CM principal diagnosis code for short-term complications (ketoacidosis, hyperosmolality, coma)	Population in metro area or county, age 18 years and older	Healthcare Cost and Utilization Project
AHRQ	Pediatric perforated appendix admission rate (PQI 2).	GI	Outcome	Ambulatory	Discharges with ICD-9-CM diagnosis code for perforations or abscesses of appendix in any field among cases meeting the inclusion rules for the denominator	All non-maternal discharges of age 18 years and older in Metro Area or county with diagnosis code for appendicitis in any field	Healthcare Cost and Utilization Project
AHRQ	Diabetes long-term complications admission rate (PQI 3).	Diabetes	Outcome	Ambulatory	Discharges age 18 years and older with ICD-9-CM principal diagnosis code for long-term complications (renal, eye, neurological, circulatory, or complications not otherwise specified)	Population in metro area or county, age 18 years and older	Healthcare Cost and Utilization Project
AHRQ	Rate of lower-extremity amputation among patients with diabetes (PQI 16).	Diabetes	Outcome	Ambulatory	All non-maternal discharges of age 18 years and older with ICD-9-CM procedure code for lower-extremity amputation in any field and diagnosis code of diabetes in any field	Population in metro area or county, age 18 years and older	Healthcare Cost and Utilization Project
AHRQ	Adults age 40 and over with diagnosed diabetes who received a flu shot in the last 12 months.	Diabetes	Process	Ambulatory	U.S. civilian noninstitutionalized adults age 40 and older with diabetes who had an influenza immunization in the past year	U.S. civilian noninstitutionalized adults age 40 and older with diabetes who answered the question "How long since you had a flu shot?" Nonresponses and "Don't Know" responses were excluded.	Medical Expenditure Panel Survey
AHRQ	Adult current smokers with a visit who received advice to quit smoking from a doctor in the last 12 months.	Behavioral Health	Process	Ambulatory	Subset of the denominator population who received advice to quit smoking	Adults age 18 and over who reported in the survey year that they currently smoke and had a routine check up in the past 12 months and answered the question "In the past 12 months did a doctor advise you to stop smoking?" Nonresponses and "Don't Know" responses were excluded.	Medical Expenditure Panel Survey
AHRQ	Adults with obesity who ever received advice to exercise more from a health provider.	Obesity	Process	Ambulatory	Subset of denominator who reported they were given advice about exercise by a doctor or health professional	Persons age 18 and over with a body mass index (BMI) of 30 or greater	Medical Expenditure Panel Survey
AHRQ	Acute myocardial infarction (AMI) mortality rate (IQI 15).	Cardiovascular	Outcome	Hospital IP	Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator	All discharges, age 18 years and older, with a principal diagnosis code of AMI	Healthcare Cost and Utilization Project
AHRQ	Acute myocardial infarction (AMI) mortality rate, without transfer cases (IQI 32).	Cardiovascular	Outcome	Hospital IP	Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator	All discharges, age 18 years and older, with a principal diagnosis code of AMI	Healthcare Cost and Utilization Project
AHRQ	Congestive heart failure (CHF) mortality rate (IQI 16).	Cardiovascular	Outcome	Hospital IP	Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator	All discharges, age 18 years and older, with principal diagnosis code of CHF	Healthcare Cost and Utilization Project
AHRQ	Acute stroke mortality rate (IQI 17).	Cardiovascular	Outcome	Hospital IP	Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator	All discharges, age 18 years and older, with principal diagnosis code for stroke	Healthcare Cost and Utilization Project

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Division	Measure Name	Condition	Domain	Care Setting	Numerator	Denominator	Data Source
AHRQ	Gastrointestinal hemorrhage mortality rate (IQI 18).	GI	Outcome	Hospital IP	Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator	All discharges, age 18 years and older, with principal diagnosis code for gastrointestinal hemorrhage	Healthcare Cost and Utilization Project
AHRQ	Hip fracture mortality rate (IQI 19).	Bone & Joint	Outcome	Hospital IP	Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator	All discharges, age 65 years and older, with principal diagnosis code for hip fracture	Healthcare Cost and Utilization Project
AHRQ	Congestive heart failure (CHF) admission rate (PQI 8).	Cardiovascular	Outcome	Hospital IP	All non-maternal/non-neonatal discharges of age 18 years and older with ICD-9-CM principal diagnosis code for CHF	Population in metro area or county, age 18 years and older	Healthcare Cost and Utilization Project (State Data Source)
AHRQ	Pediatric heart surgery mortality (PDI 6).	Cardiovascular	Outcome	Hospital IP	Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator with a code of pediatric heart surgery in any procedure field with ICD-9-CM diagnosis of congenital heart disease in any field	Discharges under age 18 with ICD-9-CM procedure codes for congenital heart disease (1P) in any field or non-specific heart surgery (2P) in any field with ICD-9-CM diagnosis of congenital heart disease (2D) in any field	Healthcare Cost and Utilization Project
AHRQ	Pediatric heart surgery volume (PDI 7).	Cardiovascular	Process	Hospital IP	Discharges under age 18 with ICD-9-CM procedure codes for either congenital heart disease (1P) in any field or non-specific heart surgery (2P) in any field with ICD-9-CM diagnosis of congenital heart disease (2D) in any field	All elective surgical discharges under age 18 defined by specific DRGs and an ICD-9-CM code for an operating room procedure	Healthcare Cost and Utilization Project
AHRQ	Abdominal aortic aneurysm (AAA) repair volume (IQI 4).	Cardiovascular	Process	Hospital IP	Discharges, age 18 years and older, with ICD-9-CM codes of 3834, 3844, 3864 or 3971 in any procedure field with a diagnosis of AAA in any field	Not applicable	Healthcare Cost and Utilization Project
AHRQ	Coronary artery bypass graft (CABG) volume (IQI 5).	Cardiovascular	Process	Hospital IP	Discharges, age 18 years and older, with ICD-9-CM codes of 3610 through 3619 in any procedure field	Not applicable	Healthcare Cost and Utilization Project
AHRQ	Percutaneous transluminal coronary angioplasty (PTCA) volume (IQI 6).	Cardiovascular	Process	Hospital IP	Discharges, age 18 years and older, with ICD-9-CM codes of 0066, 3601, 3602 or 3605 in any procedure field	Not applicable	Healthcare Cost and Utilization Project
AHRQ	Percutaneous transluminal coronary angioplasty (PTCA) mortality rate (IQI 30).	Cardiovascular	Outcome	Hospital IP	Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator	Discharges, age 40 years and older, with ICD-9-CM codes of 0066, 3601, 3602 or 3605 in any procedure field	Healthcare Cost and Utilization Project
AHRQ	Carotid endarterectomy volume (IQI 7).	Cardiovascular	Process	Hospital IP	Discharges, age 18 years and older, with an ICD-9-CM code of 3812 in any procedure field	Not applicable	Healthcare Cost and Utilization Project
AHRQ	Carotid endarterectomy mortality rate (IQI 31).	Cardiovascular	Outcome	Hospital IP	Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator	Discharges, age 18 years and older, with an ICD-9-CM code of 3812 in any procedure field	Healthcare Cost and Utilization Project
AHRQ	Esophageal resection mortality rate (IQI 8).	Cancer	Outcome	Hospital IP	Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator	Discharges, age 18 years and older, with ICD-9-CM codes for esophageal resection in any procedure field and a diagnosis code of esophageal cancer in any field	Healthcare Cost and Utilization Project
AHRQ	Pancreatic resection mortality rate (IQI 9).	Cancer	Outcome	Hospital IP	Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator	Discharges, age 18 years and older, with ICD-9-CM codes of 526 or 527 in any procedure field and a diagnosis code of pancreatic cancer in any field	Healthcare Cost and Utilization Project
AHRQ	Abdominal aortic artery (AAA) repair mortality rate (IQI 11).	Cardiovascular	Outcome	Hospital IP	Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator	Discharges, age 18 years and older, with ICD-9-CM codes of 3834, 3844, 3864, or 3971 in any procedure field and a diagnosis of AAA in any field	Healthcare Cost and Utilization Project
AHRQ	Coronary artery bypass graft (CABG) mortality rate (IQI 12).	Cardiovascular	Outcome	Hospital IP	Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator	Discharges, age 40 years and older, with ICD-9-CM codes of 3610 through 3619 in any procedure field	Healthcare Cost and Utilization Project
AHRQ	Craniotomy mortality rate (IQI 13).	Surgery	Outcome	Hospital IP	Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator	All discharges, age 18 years or older, with DRG code for craniotomy (DRG 001, 002, 528, 529, 530, and 543)	Healthcare Cost and Utilization Project
AHRQ	Hip replacement mortality rate (IQI 14).	Bone & joint	Outcome	Hospital IP	Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator	All discharges, age 18 years and older, with a procedure code of partial or full hip replacement in any field	Healthcare Cost and Utilization Project
AHRQ	Adults with obesity who ever received advice about eating fewer high fat or high cholesterol foods from a health provider.	Obesity	Process	Ambulatory	Subset of denominator who reported they were advised by a doctor or health professional about restricting foods high in fat and cholesterol	Persons age 18 and over with a body mass index (BMI) of 30 or greater	Medical Expenditure Panel Survey
AHRQ	Accidental puncture or laceration (PDI 1).	Patient safety	Outcome	Hospital Inpatient	Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM code denoting accidental cut, puncture, perforation or laceration during a procedure in any secondary diagnosis field	All surgical and medical discharges under age 18 defined by specific DRGs	Healthcare Cost and Utilization Project
AHRQ	Decubitus ulcer (PDI 2).	Chronic & Elder Care	Outcome	Hospital Inpatient	Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM code of decubitus ulcer in any secondary diagnosis field	All medical and surgical discharges under age 18 defined by specific DRGs	Healthcare Cost and Utilization Project
AHRQ	Foreign body left during procedure (PDI 3).	Patient safety	Outcome	Hospital Inpatient	Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM codes for foreign body left in during procedure in any secondary diagnosis field	All surgical and medical discharges under age 18 defined by specific DRGs	Healthcare Cost and Utilization Project
AHRQ	Iatrogenic pneumothorax in neonates (PDI 4) / iatrogenic pneumothorax (PDI 5).	Patient safety	Outcome	Hospital Inpatient	Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM code of 512.1 in any secondary diagnosis field	All surgical and medical discharges under age 18 defined by specific DRGs	Healthcare Cost and Utilization Project
AHRQ	Postoperative hemorrhage or hematoma (PDI 8).	Surgery	Outcome	Hospital Inpatient	Discharges among cases meeting the inclusion and exclusion rules for the denominator with the following: • ICD-9-CM code for postoperative hemorrhage or postoperative hematoma in any secondary diagnosis field • ICD-9-CM code for postoperative control of hemorrhage or for drainage of hematoma in any procedure code field	All elective surgical discharges under age 18 defined by specific DRGs and an ICD-9-CM code for an operating room procedure	Healthcare Cost and Utilization Project

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Division	Measure Name	Condition	Domain	Care Setting	Numerator	Denominator	Data Source
AHRQ	Postoperative respiratory failure (PDI 9).	Surgery	Outcome	Hospital Inpatient	Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM codes 518.81 or 518.84 for acute respiratory failure in any secondary diagnosis field. Or discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM codes for reintubation procedure in any secondary procedure field as follows: • (96.04) one or more days after the major operating room procedure code • (96.70 or 96.71) two or more days after the major operating room procedure code • (96.72) zero or more days after the major operating room procedure code	All elective surgical discharges under age 18 defined by specific DRGs and an ICD-9-CM code for an operating room procedure	Healthcare Cost and Utilization Project
AHRQ	Postoperative sepsis (PDI 10).	Surgery	Outcome	Hospital Inpatient	Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM code for sepsis in any secondary diagnosis field	All surgeries under age 18 defined by specific DRGs and an ICD-9-CM code for an operating room procedure	Healthcare Cost and Utilization Project
AHRQ	Postoperative wound dehiscence (PDI 11).	Surgery	Outcome	Hospital Inpatient	Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM code for reclosure of postoperative disruption of abdominal wall (54.61) in any procedure field	All abdominopelvic surgical discharges under age 18	Healthcare Cost and Utilization Project
AHRQ	Selected infections due to medical care (PDI 12).	Patient Safety	Outcome	Hospital Inpatient	Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM code of 999.3, 999.31 or 996.62 in any secondary diagnosis field	All surgical and medical discharges under age 18 defined by specific DRGs	Healthcare Cost and Utilization Project
AHRQ	Transfusion reaction (PDI 13).	Patient Safety	Outcome	Hospital Inpatient	Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM codes for transfusion reaction in any secondary diagnosis field	All surgical and medical discharges under age 18 defined by specific DRGs	Healthcare Cost and Utilization Project
AHRQ	Diabetes short-term complications admission rate (PDI 15).	Diabetes	Outcome	Hospital Inpatient	All non-maternal discharges ages 6 to 17 years with ICD-9-CM principal diagnosis code for short-term complications (ketoacidosis, hyperosmolality, coma)	Population ages 6 to 17 in metro area or county	Healthcare Cost and Utilization Project
AHRQ	Perforated appendix admission rate (PDI 17).	GI	Outcome	Hospital Inpatient	Discharges ages 1 to 17 years with ICD-9-CM diagnosis code for perforations or abscesses of appendix in any field	All non-maternal discharges ages 1 to 17 years in metro area or county with diagnosis code for appendicitis in any field	Healthcare Cost and Utilization Project
AHRQ	Urinary tract infection admission rate (PDI 18).	Population	Outcome	Hospital Inpatient	All non-maternal discharges ages 3 months to 17 years with ICD-9-CM principal diagnosis code of urinary tract infection	Population in metro Area or county ages 3 months to 17 years	Healthcare Cost and Utilization Project
AHRQ	Children who ever had their height and weight measured by a health provider.	Population	Process	Ambulatory	Children under age 18 who ever had both height and weight measured for the "Ever had both measures" estimates. Children who had both measurements within the past year for the "Within the past year" estimates. Children who had both measurements, either within the past year or 2 years for the "Within the past 2 years" estimates.	Children under age 18 for the "Ever given advice" estimates, excluding nonrespondents to the questions of whether height or weight was measured by a doctor or other healthcare provider. "Don't know" responses to the questions of when the weight and/or height was measured were further excluded from the "Within the past year" and "Within the past 2 years" estimates.	Medical Expenditure Panel Survey
AHRQ	Children age 2-17 for whom a health provider ever gave advice about the amount and kind of exercise, sports, or physically active hobbies they should have.	Behavioral Health	Process	Ambulatory	Children age 2-17 for whom a doctor or other health provider had ever given advice about amount and kind of physical activity for the "Ever given advice" estimates. Children who were given the advice within the past year for "Within the past year" estimates. Children who were given the advice within the past year or 2 years for "Within the past 2 years" estimates.	Children age 2-17 for the "Ever given advice" estimates, excluding nonrespondents to the question, "Has a doctor or other health provider ever given advice about amount and kind of exercise, sports, or physically active hobbies you should have?" "Don't know" responses to the question of when the advice was given were further excluded from the "Within the past year" and "Within the past 2 years" estimates.	Medical Expenditure Panel Survey
AHRQ	Children age 2-17 for whom a health provider ever gave advice about eating healthy.	Obesity	Process	Ambulatory	Children age 2-17 for whom a doctor or other health provider had ever given advice about eating healthy for the "Ever given advice" estimates. Children who were given the advice within the past year for "Within the past year" estimates. Children who were given the advice within the past year or 2 years for "Within the past 2 years" estimates.	Children age 2-17 for the "Ever given advice" estimates, excluding nonrespondents to the question, "Has a doctor or other health provider ever given advice about eating healthy?" "Don't know" responses to the question of when the advice was given were further excluded for the "Within the past year" and "Within the past 2 years" estimates.	Medical Expenditure Panel Survey
AHRQ	Children age 3-6 who ever had their vision checked by a health provider.	HEENT	Process	Ambulatory	Children age 3-6 whose vision had ever been checked by a doctor or other health provider.	Children age 3-6. Nonresponses, as well as "Don't know" responses, were excluded.	Medical Expenditure Panel Survey
AHRQ	Children age 2-17 who received a dental visit in the calendar year.	HEENT	Process	Ambulatory	Number of children age 2-17 who had a dental visit in the survey year	U.S. population, children age 2-17	Medical Expenditure Panel Survey
AHRQ	Children for whom a health provider ever gave advice about how smoking in the house can be bad for the child.	Behavioral Health	Process	Ambulatory	For the "Ever given advice" estimates, children under age 18 for whom a doctor or other health provider had ever given advice about how smoking in the house can be harmful. Children who were given the advice within the past year for "Within the past year" estimates. Children who were given the advice within the past year or 2 years for "Within the past 2 years" estimates.	Children under age 18 for the "Ever given advice" estimates, excluding nonrespondents to the question of whether a doctor or other health provider had ever given advice about how smoking in the house can be harmful. "Don't know" responses to the question of when the advice was given were further excluded for the "Within the past year" and "Within the past 2 years" estimates.	Medical Expenditure Panel Survey
AHRQ	Children for whom a health provider ever gave advice about using car safety restraints.	Patient Safety	Process	Ambulatory	For the "Ever given advice" estimates, children under age 18 for whom a doctor or other health provider had ever given advice about using a child car safety seat, a booster seat, or lap and shoulder belts. Children who were given the advice within the past year for "Within the past year" estimates. Children who were given the advice within the past year or 2 years for "Within the past 2 years" estimates.	Children under age 18 for the "Ever given advice" estimates, excluding nonrespondents to the question of whether a doctor or other health provider had ever given advice about using car safety restraints. "Don't know" responses to the question of when the advice was given were further excluded for the "Within the past year" and "Within the past 2 years" estimates.	Medical Expenditure Panel Survey
AHRQ	Children 0-40 lbs for whom a health provider ever gave advice about using child safety seats when riding in the car.	Patient Safety	Process	Ambulatory	Children in the denominator for whom a doctor or other health provider had ever given advice about using child car safety seats	Children under 40 lbs or age 0-17, excluding missing	Medical Expenditure Panel Survey

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AHRQ	Children 41-80 lbs for whom a health provider gave advice about using booster seats when riding in the car.	Patient Safety	Process	Ambulatory	Children in the denominator for whom a doctor or other health provider had ever given advice about using booster seats	Children 40-80 lbs or age 5-9, excluding missing	Medical Expenditure Panel Survey
AHRQ	Children over 80 lbs for whom a health provider gave advice about using lap or shoulder belts when riding in a car.	Patient Safety	Process	Ambulatory	Children in the denominator for whom a doctor or other health provider had ever given advice about using lap and shoulder belts	Children over 80 lbs or age 10-17, excluding missing	Medical Expenditure Panel Survey
AHRQ	Gastroenteritis admission rate (PDI 16).	GI	Outcome	Ambulatory	All non-maternal discharges ages 3 months to 17 years with ICD-9-CM principal diagnosis code for gastroenteritis or with secondary diagnosis code of gastroenteritis and a principal diagnosis code of dehydration	Population 3 months to 17 years in metro area or county	Healthcare Cost and Utilization Project
AHRQ	Hospital admissions for immunization-preventable influenza per 100,000 population age 65 and over.	Infectious Diseases	Outcome	Ambulatory	Non-maternal hospital discharges age 65 and over with any diagnosis of immunization-preventable influenza (ICD-9-CM codes 487.0, 487.1, and 487.8), excluding transfers from other institutions	U.S. population age 65 and over	Healthcare Cost and Utilization Project
AHRQ	Pneumonia mortality rate (IQI 20).	Infectious Diseases	Outcome	Hospital IP	Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator	All discharges, age 18 years and older, with a principal diagnosis code of pneumonia	Healthcare Cost and Utilization Project
AHRQ	Cesarean delivery rate (IQI 21).	Population	Outcome	Hospital IP	Number of Cesarean deliveries, identified by DRG, or by ICD-9-CM procedure codes if they are reported without a 7491 hysterotomy procedure, among cases meeting the inclusion and exclusion rules for the denominator	All deliveries	Healthcare Cost and Utilization Project
AHRQ	Primary cesarean delivery rate (IQI 33).	Population	Outcome	Hospital IP	Number of Cesarean deliveries, identified by DRG, or by ICD-9-CM procedure codes if they are reported without a 7491 hysterotomy procedure, among cases meeting the inclusion and exclusion rules for the denominator	All deliveries	Healthcare Cost and Utilization Project
AHRQ	Vaginal birth after cesarean (VBAC) delivery rate, uncomplicated (IQI 22).	Population	Outcome	Hospital IP	Number of vaginal births in women among cases meeting the inclusion and exclusion rules for the denominator	All deliveries with a previous cesarean delivery diagnosis in any diagnosis field	Healthcare Cost and Utilization Project
AHRQ	Vaginal birth after cesarean (VBAC) delivery, all (IQI 34).	Population	Outcome	Hospital IP	Number of vaginal births in women among cases meeting the inclusion and exclusion rules for the denominator	All deliveries with a previous cesarean delivery diagnosis in any diagnosis field	Healthcare Cost and Utilization Project
AHRQ	Laparoscopic cholecystectomy rate (IQI 23).	Surgery	Outcome	Hospital IP	Number of laparoscopic cholecystectomies (any procedure field) among cases meeting the inclusion and exclusion rules for the denominator	All discharges, age 18 years and older, with cholecystectomy in any procedure field	Healthcare Cost and Utilization Project
AHRQ	Incidental appendectomy in the elderly rate (IQI 24).	Surgery	Outcome	Hospital IP	Number of incidental appendectomies (any procedure field) among cases meeting the inclusion and exclusion rules for the denominator	All discharges, age 65 years and older, with intra-abdominal procedure	Healthcare Cost and Utilization Project
AHRQ	Bilateral cardiac catheterization rate (IQI 25).	Cardiovascular	Outcome	Hospital IP	Number of simultaneous right and left heart catheterizations (in any procedure field) among cases meeting the inclusion and exclusion rules for the denominator	All discharges, age 18 years and older, with heart catheterization in any procedure field	Healthcare Cost and Utilization Project
AHRQ	Coronary artery bypass graft (CABG) area rate (IQI 26).	Cardiovascular	Outcome	Hospital IP	Number of CABGs in any procedure field. All discharges age 40 years and older.	Population in metro area or county, age 40 years and older	Healthcare Cost and Utilization Project
AHRQ	Percutaneous transluminal coronary angioplasty (PTCA) area rate (IQI 27).	Cardiovascular	Outcome	Hospital IP	Discharges, age 40 years and older, with ICD-9-CM codes of 0066, 3601, 3602 or 3605 in any procedure field	Population in metro area or county, age 40 years and older	Healthcare Cost and Utilization Project
AHRQ	Hysterectomy area rate (IQI 28).	Surgery	Outcome	Hospital IP	Number of hysterectomies in any procedure field. All discharges of females age 18 years and older.	Female population in metro area or county, age 18 years and older	Healthcare Cost and Utilization Project
AHRQ	Laminectomy or spinal fusion area rate (IQI 29).	Bone & Joint	Outcome	Hospital IP	Number of laminectomies or spinal fusions in any procedure field. All discharges age 18 years and older.	Population in metro area or county, age 18 years and older	Healthcare Cost and Utilization Project
AHRQ	Asthma admission rate (PDI 14).	Respiratory	Outcome	Ambulatory	Discharges ages 2 to 17 years with ICD-9-CM principal diagnosis code of asthma	Population ages 2 to 17 years in metro area or county	Healthcare Cost and Utilization Project
AHRQ	Adult asthma admission rate (PQI 15).	Respiratory	Outcome	Ambulatory	All non-maternal discharges of age 18 years and older with ICD-9-CM principal diagnosis code of asthma	Population in metro area or county, age 18 years and older	Healthcare Cost and Utilization Project
AHRQ	Hospital admissions for asthma per 100,000 population age 65 and over.	Respiratory	Outcome	Ambulatory	Non-maternal hospital discharges age 65 and over with a principal diagnosis code of asthma (ICD-9-CM codes 493.00-493.02, 493.10-493.12, 493.20-493.22, and 493.90-493.92). Excludes obstetric admissions and patients transferred from other institutions	U.S. population age 65 and over	Healthcare Cost and Utilization Project
AHRQ	Postoperative hemorrhage or hematoma (PSI 9 and 27).	Surgery	Outcome	Hospital IP	Discharges among cases meeting the inclusion and exclusion rules for the denominator with the following: • CD-9-CM code for postoperative hemorrhage or postoperative hematoma in any secondary diagnosis field AND • ICD-9-CM code for postoperative control of hemorrhage or for drainage of hematoma in any procedure code field	All surgical discharges 18 years and older defined by specific DRGs and an ICD-9-CM code for an operating room procedure	Healthcare Cost and Utilization Project
AHRQ	Postoperative septicemia per 1,000 elective surgical hospital discharges of 4 or more days age 18 and over.	Surgery	Outcome	Hospital IP	Subset of the denominator with any secondary diagnosis of sepsis	All elective hospital surgical discharges with length of stay longer than 3 days, excluding patients admitted for infection, patients with cancer or immunocompromised states, and obstetric conditions	Healthcare Cost and Utilization Project
AHRQ	Postoperative pulmonary embolism or deep vein thrombosis (PSI 12).	Surgery	Outcome	Hospital IP	Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM codes for deep vein thrombosis or pulmonary embolism in any secondary diagnosis field	All surgical discharges age 18 and older defined by specific DRGs and an ICD-9-CM code for an operating room procedure	Healthcare Cost and Utilization Project
AHRQ	Postoperative sepsis (PSI 13).	Surgery	Outcome	Hospital IP	Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM code for sepsis in any secondary diagnosis field	All elective surgical discharges age 18 and older defined by specific DRGs and an ICD-9-CM code for an operating room procedure	Healthcare Cost and Utilization Project

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Division	Measure Name	Condition	Domain	Care Setting	Numerator	Denominator	Data Source
AHRQ	Postoperative respiratory failure (PSI 11).	Surgery	Outcome	Hospital IP	Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM codes for acute respiratory failure (518.81) in any secondary diagnosis field. (After 1999, include 518.84). Or discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM codes for reintubation procedure as follows: • (96.04) one or more days after the major operating room procedure code • (96.70 or 96.71) two or more days after the major operating room procedure code • (96.72) zero or more days after the major operating room procedure code	All elective surgical discharges age 18 and older defined by specific DRGs and an ICD-9-CM code for an operating room procedure	Healthcare Cost and Utilization Project
AHRQ	Postoperative physiologic and metabolic derangement (PSI 10).	Surgery	Outcome	Hospital IP	Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM codes for physiologic and metabolic derangements in any secondary diagnosis field. Discharges with acute renal failure (subgroup of physiologic and metabolic derangements) must be accompanied by a procedure code for dialysis (39.95, 54.98).	All elective surgical discharges 18 years and older defined by specific DRGs and an ICD-9-CM code for an operating room procedure	Healthcare Cost and Utilization Project
AHRQ	Postoperative hip fracture (PSI 8).	Surgery	Outcome	Hospital IP	Discharges with ICD-9-CM code for hip fracture in any secondary diagnosis field among cases meeting the inclusion and exclusion rules for the denominator	All surgical discharges age 18 and older defined by specific DRGs and an ICD-9-CM code for an operating room procedure	Healthcare Cost and Utilization Project
AHRQ	Postoperative wound dehiscence (PSI 14 and 24).	Surgery	Outcome	Hospital IP	Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM code for reclosure of postoperative disruption of abdominal wall (54.61) in any procedure field	All abdominopelvic surgical discharges age 18 and older	Healthcare Cost and Utilization Project
AHRQ	Foreign body left during procedure, secondary diagnosis field (PSI 5 and 21).	Surgery	Outcome	Hospital IP	Discharges with ICD-9-CM codes for foreign body left in during procedure in any secondary diagnosis field among cases meeting the inclusion and exclusion rules for the denominator	All medical and surgical discharges, 18 years and older or MDC 14 (pregnancy, childbirth, and puerperium), defined by specific DRGs. Exclude patients with ICD-9-CM codes for foreign body left in during procedure in the principal diagnosis field or secondary diagnosis present on admission, if known.	Healthcare Cost and Utilization Project
AHRQ	Complications of anesthesia (PSI 1).	Surgery	Outcome	Hospital IP	Discharges with ICD-9-CM diagnosis codes for anesthesia complications in any secondary diagnosis field among cases meeting the inclusion and exclusion rules for the denominator	All surgical discharges, 18 years and older or MDC 14 (pregnancy, childbirth, and puerperium), defined by specific DRGs and an ICD-9-CM code for an operating room procedure	Healthcare Cost and Utilization Project
AHRQ	Birth trauma—injury to neonate (PSI 17).	Patient Safety	Outcome	Hospital IP	Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM codes for birth trauma in any diagnosis field	All liveborn births (newborns)	Healthcare Cost and Utilization Project
AHRQ	Obstetric trauma—vaginal delivery with instrument (PSI 18).	Patient Safety	Outcome	Hospital IP	Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM codes for 3rd and 4th degree obstetric trauma in any diagnosis or procedure field	All vaginal delivery discharges with any procedure code for instrument-assisted delivery	Healthcare Cost and Utilization Project
AHRQ	Obstetric trauma—vaginal delivery without instrument (PSI 19).	Patient Safety	Outcome	Hospital IP	Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM codes for 3rd and 4th degree obstetric trauma in any diagnosis or procedure field	All vaginal delivery discharge patients	Healthcare Cost and Utilization Project
AHRQ	Obstetric trauma—cesarean delivery (PSI 20).	Patient Safety	Outcome	Hospital IP	Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM codes for 3rd and 4th degree obstetric trauma in any diagnosis or procedure field	All cesarean delivery discharges. Cesarean delivery.	Healthcare Cost and Utilization Project
AHRQ	Children age 2-17 for whom a health provider gave advice about using a helmet when riding a bicycle or motorcycle.	Patient Safety	Process	Ambulatory	For the "Ever given advice" estimates, children age 2-17 for whom a doctor or other health provider had ever given advice about using a helmet when riding a bicycle or motorcycle. Children who were given the advice within the past year for "Within the past year" estimates. Children who were given the advice within the past year or 2 years for "Within the past 2 years" estimates.	Children under age 18 for the "Ever given advice" estimates, excluding nonrespondents to the question of whether a doctor or other health provider had ever given advice about using a helmet when riding a bicycle or motorcycle. "Don't know" responses to the question of when the advice was given were further excluded for the "Within the past year" and "Within the past 2 years" estimates.	Medical Expenditure Panel Survey
AHRQ	Adults age 65 and over who received a prescription for a potentially inappropriate medication in the calendar year.	Patient Safety	Process	Ambulatory	Persons age 65 and over who had 1 or more of the 11 or 33 potentially inappropriate medications	U.S. population age 65 and over	Medical Expenditure Panel Survey
AHRQ	Decubitus ulcer (PSI 3).	Chronic & Elder Care	Outcome	Hospital IP	Discharges with ICD-9-CM code of decubitus ulcer in any secondary diagnosis field among cases meeting the inclusion and exclusion rules for the denominator	All medical and surgical discharges age 18 years and older defined by specific DRGs	Healthcare Cost and Utilization Project
AHRQ	Death among surgical inpatients with serious treatable complications (PSI 4).	Surgery	Outcome	Hospital IP	All discharges with a disposition of "deceased" among cases meeting the inclusion and exclusion rules for the denominator	All surgical discharges age 18 years and older defined by specific DRGs and an ICD-9-CM code for an operating room procedure, principal procedure within 2 days of admission OR admission type of elective with potential complications of care listed in Death among Surgical definition (e.g., pneumonia, DVT/PE, sepsis, shock/cardiac arrest, or GI hemorrhage/acute ulcer)	Healthcare Cost and Utilization Project
AHRQ	Selected infections due to medical care, secondary diagnosis field (PSI 7 and 23).	Patient Safety	Outcome	Hospital IP	Discharges with ICD-9-CM code of 999.3, 999.31 or 996.62 in any secondary diagnosis field among cases meeting the inclusion and exclusion rules for the denominator	All surgical and medical discharges, 18 years and older or MDC 14 (pregnancy, childbirth, and puerperium), defined by specific DRGs	Healthcare Cost and Utilization Project
AHRQ	Deaths per 1,000 discharges with complications potentially resulting from care (failure to rescue) age 18-74.	Patient Safety	Outcome	Hospital IP	Subset of the denominator with discharge disposition of death	Inpatient hospital discharges with potential complications of care listed in failure to rescue definition (i.e., pneumonia, deep vein thrombosis/pulmonary embolism, sepsis, acute renal failure, shock/cardiac arrest, or gastrointestinal hemorrhage/acute ulcer), excluding patients transferred in or out, patients admitted from long-term-care facilities, neonates, and patients over 74 years old	Healthcare Cost and Utilization Project

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## HHS Measure Inventory

Measures not publicly reported by each division and not related to hospitals have been excluded.

Division	Measure Name	Condition	Domain	Care Setting	Numerator	Denominator	Data Source
AHRQ	Accidental puncture or laceration, secondary diagnosis field (PSI 15 and 25).	Patient Safety	Outcome	Hospital IP	Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM code denoting accidental cut, puncture, perforation or laceration during a procedure in any secondary diagnosis field	All surgical and medical discharges age 18 years and older defined by specific DRGs	Healthcare Cost and Utilization Project
AHRQ	Iatrogenic pneumothorax, secondary diagnosis field (PSI 6 and 22).	Patient Safety	Outcome	Hospital IP	Discharges with ICD-9-CM code of 512.1 in any secondary diagnosis field among cases meeting the inclusion and exclusion rules for the denominator	All surgical and medical discharges age 18 years and older defined by specific DRGs	Healthcare Cost and Utilization Project
AHRQ	Death in low-mortality DRGs (PSI 2).	Patient Safety	Outcome	Hospital IP	Subset of the denominator with discharge disposition of death	Hospital admissions in low mortality DRGs (with a NIS 1997 benchmark of less than 0.5% mortality), excluding patients with any code for trauma, immunocompromised state, or cancer	Healthcare Cost and Utilization Project
AHRQ	Transfusion reaction, secondary diagnosis field (PSI 16 and 26).	Patient Safety	Outcome	Hospital IP	Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM code for transfusion reaction in any secondary diagnosis field	All medical and surgical discharges, 18 years and older or MDC 14 (pregnancy, childbirth, and puerperium), defined by specific DRGs	Healthcare Cost and Utilization Project
AHRQ	Composite measure: People who were unable to get or delayed in getting needed medical care, dental care, or prescription medicines in the last 12 months.	Health Care Delivery	Structure/Acceptance	Ambulatory	Subset of the denominator of families with each of the 3 major reasons, could not afford, insurance-related reasons, and other reasons	U. S. families reporting that at least 1 family member experienced difficulty in obtaining health care, including those with members who attempted but did not receive care or delayed the needed care	Medical Expenditure Panel Survey
AHRQ	People who were unable to get or delayed in getting needed medical care in the last 12 months.	Health Care Delivery	Structure/Acceptance	Ambulatory	Persons who attempted to obtain but did not receive or delayed needed medical care	U. S. civilian noninstitutionalized persons	Medical Expenditure Panel Survey
AHRQ	People who were unable to get or delayed in getting needed dental care in the last 12 months.	Health Care Delivery	Structure/Acceptance	Ambulatory	Persons who attempted to obtain but did not receive or delayed needed dental care	U.S. civilian noninstitutionalized persons	Medical Expenditure Panel Survey
AHRQ	People who were unable to get or delayed in getting needed prescription medicines in the last 12 months.	Health Care Delivery	Structure/Acceptance	Ambulatory	Persons who attempted to obtain but did not receive or delayed the needed prescription medications	U.S. civilian noninstitutionalized persons	Medical Expenditure Panel Survey
AHRQ	Adults who had an appointment for routine health care in the last 12 months who got appointments for routine care as soon as wanted.	Health Care Delivery	Structure/Acceptance	Ambulatory	Subset of the denominator population in 3 categories according to their answer to the above question: "Always," "Usually," "Sometimes," or "Never"	Adults age 18 and over who made an appointment for regular or routine health care in the past 12 months and answered the question "In the last 12 months, how often did you get an appointment for regular or routine health care as soon as you wanted?" Nonresponses, as well as "Don't know" responses, were excluded.	Medical Expenditure Panel Survey
AHRQ	Adults who had an appointment for routine health care in the last 12 months who got appointments for routine care as soon as wanted.	Health Care Delivery	Structure/Acceptance	Ambulatory	Subset of the denominator population who answered "Always" to the question "In the last 6 months, not counting times you needed health care right away, how often did you get an appointment for health care as soon as you wanted?"	Respondents who answered "Yes" to the question "In the last 6 months did you make any appointments with a doctor or other health care provider for regular or routine health care?"	National CAHPS Benchmarking Database (State Data Source)
AHRQ	Children who had an appointment for routine health care in the last 12 months who got appointments for routine care as soon as wanted.	Health Care Delivery	Structure/Acceptance	Ambulatory	Subset of the denominator population in 3 categories according to their answer to the above question: "Always," "Usually," "Sometimes," or "Never"	Children who had an appointment for regular or routine health care in the past 12 months and with a valid answer to the question "In the last 12 months, how often did [the person] get an appointment for regular or routine health care as soon as you wanted?" Nonresponses, as well as "Don't know" responses, were excluded.	Medical Expenditure Panel Survey
AHRQ	Children who had an appointment for routine health care in the last 12 months who got appointments for routine care as soon as wanted.	Health Care Delivery	Structure/Acceptance	Ambulatory	Subset of the denominator population with an "Always" answer to the question "In the last 6 months, not counting times you needed health care right away, how often did you get an appointment for health care as soon as you wanted?"	Children with Medicaid benefits who had appointments with a doctor or other health care provider for regular or routine health care in the past 6 months	National CAHPS Benchmarking Database (State Data Source)
AHRQ	Adults who needed care right away for an illness, injury, or condition in the last 12 months who got care as soon as wanted.	Health Care Delivery	Structure/Acceptance	Ambulatory	Subset of the denominator population in 3 categories according to their answer to the above question: "Always," "Usually," "Sometimes," or "Never"	Adults age 18 and over who had an illness or injury that needed care right away from a doctor's office, clinic, or emergency room in the past 12 months and also answered the question of "In the last 12 months, when you needed care right away for an illness or injury, how often did you get care as soon as you wanted?" Nonresponses and "Don't know" responses were excluded.	Medical Expenditure Panel Survey
AHRQ	Adults who needed care right away for an illness, injury, or condition in the last 12 months who got care as soon as wanted.	Health Care Delivery	Structure/Acceptance	Ambulatory	Subset of the denominator who answered "Always" to the question "In the last 6 months, when you needed care right away for an illness, injury, or condition, how often did you get care as soon as you wanted?"	Adults who reported having an illness, injury, or condition that needed care right away in a clinic, emergency room or doctor's office in the past 6 months	National CAHPS Benchmarking Database (State Data Source)
AHRQ	Children who needed care right away for an illness, injury, or condition in the last 12 months who got care as soon as wanted.	Health Care Delivery	Structure/Acceptance	Ambulatory	Subset of the denominator population in 3 categories according to their answer to the above question: "Always," "Usually," "Sometimes," or "Never"	Children under age 18 who had an illness or injury that needed care right away from a doctor's office, clinic, or emergency room in the past 12 months, with a valid answer to the question of "In the last 12 months, when [the person] needed care right away for an illness or injury, how often did [person] get care as soon as you wanted?" Nonresponses and "Don't know" responses were excluded.	Medical Expenditure Panel Survey
AHRQ	Children who needed care right away for an illness, injury, or condition in the last 12 months who got care as soon as wanted.	Health Care Delivery	Structure/Acceptance	Ambulatory	Subset of the denominator with an answer of "Always" to the question "In the last 6 months, when you needed care right away for an illness, injury, or condition, how often did you get care as soon as you wanted?"	Children with Medicaid benefits who had an illness, injury, or condition that needed care right away in a clinic, emergency room or doctor's office in the past 6 months	National CAHPS Benchmarking Database (State Data Source)
AHRQ	People with a usual source of care that usually asks about prescription medications and treatments from other doctors.	Patient Safety	Process	Ambulatory	Subset of the denominator population who answered "Yes" to the question	Persons who had a USC and answered the question "Does [respondent's usual care provider] usually ask about prescription medications and treatments other doctors may give you?" Nonresponses, as well as "Don't Know" responses, were excluded.	Medical Expenditure Panel Survey

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## HHS Measure Inventory

*Measures not publicly reported by each division and not related to hospitals have been excluded.*

Division	Measure Name	Condition	Domain	Care Setting	Numerator	Denominator	Data Source
AHRQ	Composite measure: Adults who had a doctor's office or clinic visit in the last 12 months whose health providers listened carefully, explained things clearly, respected what they had to say, and spent enough time with them.	Health Care Delivery	Process	Ambulatory	Subset of the denominator population in 3 categories according to their answer to the 4 questions: "Always," "Usually," "Sometimes," or "Never"	Adults age 18 and over who visited a doctor's office or clinic to get health care in the past 12 months with valid, nonmissing answer to all 4 questions that comprise the composite measure	Medical Expenditure Panel Survey
AHRQ	Composite measure: Adults who had a doctor's office or clinic visit in the last 12 months whose health providers listened carefully, explained things clearly, respected what they had to say, and spent enough time with them.	Health Care Delivery	Process	Ambulatory	Subset of the denominator population in 3 categories according to their answer to the 4 questions: "Always," "Usually," "Sometimes," or "Never"	Adults with Medicaid benefits who visited a doctor's office or clinic in the past 6 months	National CAHPS Benchmarking Database (State Data Source)
AHRQ	Composite measure: Children who had a doctor's office or clinic visit in the last 12 months whose health providers listened carefully, explained things clearly, respected what their parents had to say, and spent enough time with them.	Health Care Delivery	Process	Ambulatory	Subset of the denominator population in 3 categories according to their answer to the 4 questions: "Always," "Usually," "Sometimes," or "Never"	Children under age 18 who visited a doctor's office or clinic to get health care in the past 12 months with valid, nonmissing answer to all 4 questions that comprise the composite measure	Medical Expenditure Panel Survey
AHRQ	Composite measure: Children who had a doctor's office or clinic visit in the last 12 months whose health providers listened carefully, explained things clearly, respected what their parents had to say, and spent enough time with them.	Health Care Delivery	Process	Ambulatory	Subset of the denominator population in 3 categories according to their answer to the 4 questions: "Always," "Usually," "Sometimes," or "Never"	Children with Medicaid benefits who visited a doctor's office or clinic in the past 6 months	National CAHPS Benchmarking Database (State Data Source)
AHRQ	Adults who had a doctor's office or clinic visit in the last 12 months whose health providers listened carefully to them.	Health Care Delivery	Process	Ambulatory	Subset of the denominator population in 3 categories according to their answer to the above question: "Always," "Usually," "Sometimes," or "Never"	Adults who visited a doctor's office or clinic to get health care in the past 12 months and answered the question "In the last 12 months how often did doctors or other health providers listen carefully to you?" Nonresponses and "Don't know" responses were excluded.	Medical Expenditure Panel Survey
AHRQ	Adults who had a doctor's office or clinic visit in the last 12 months whose health providers listened carefully to them.	Health Care Delivery	Process	Ambulatory	Subset of the denominator population who responded "Always" to the question "In the last 6 months, how often did doctors or other health providers listen carefully to you?"	Adults who visited a doctor's office or clinic to get health care in the past 6 months	National CAHPS Benchmarking Database (State Data Source)
AHRQ	Children who had a doctor's office or clinic visit in the last 12 months whose health providers listened carefully to them.	Health Care Delivery	Process	Ambulatory	Subset of the denominator population in 3 categories according to their answer to the above question: "Always," "Usually," "Sometimes," or "Never"	Children under age 18 who visited a doctor's office or clinic to get health care in the past 12 months with a valid answer to the question "In the last 12 months how often did doctors or other health providers listen carefully to you?" Nonresponses and "Don't know" responses were excluded.	Medical Expenditure Panel Survey
AHRQ	Children who had a doctor's office or clinic visit in the last 12 months whose health providers listened carefully to them.	Health Care Delivery	Process	Ambulatory	Subset of the denominator population with a response of "Always" to the question of "In the last 6 months, how often did doctors or other health providers listen carefully to you?"	Children with Medicaid benefits who visited a doctor's office or clinic in the past 6 months	National CAHPS Benchmarking Database (State Data Source)
AHRQ	Adults who had a doctor's office or clinic visit in the last 12 months whose health providers explained things in a way they could understand.	Health Care Delivery	Process	Ambulatory	Subset of the denominator population who answered "Always" to the question "In the last 12 months how often did doctors or other health providers explain things in a way you could understand?"	Adults age 18 and over who visited a doctor's office or clinic to get health care in the past 12 months and answered the question "In the last 12 months how often did doctors or other health providers explain things in a way you could understand?" Nonresponses and "Don't know" responses were excluded.	Medical Expenditure Panel Survey
AHRQ	Adults who had a doctor's office or clinic visit in the last 12 months whose health providers explained things in a way they could understand.	Health Care Delivery	Process	Ambulatory	Subset of the denominator population who answered "Always" to the question "In the last 6 months, how often did doctors or other health providers explain things in a way you could understand?"	Number of adults visiting a doctor's office or clinic in the past 6 months	National CAHPS Benchmarking Database (State Data Source)
AHRQ	Children who had a doctor's office or clinic visit in the last 12 months whose health providers explained things in a way they could understand.	Health Care Delivery	Process	Ambulatory	Subset of the denominator population in 3 categories according to the answer to the above question: "Always," "Usually," "Sometimes," or "Never"	Children under age 18 who had a doctor's office or clinic visit in the last 12 months with a valid answer to the question "In the last 12 months how often did [the person's] doctors or other health providers explain things in a way you could understand?" Nonresponses and "Don't know" responses were excluded.	Medical Expenditure Panel Survey
AHRQ	Children who had a doctor's office or clinic visit in the last 12 months whose health providers explained things in a way they could understand.	Health Care Delivery	Process	Ambulatory	Subset of the denominator population with the response "Always" to the question "In the last 6 months, how often did doctors or other health providers explain things in a way you could understand?"	Children with Medicaid benefits who visited a doctor's office or clinic in the past 6 months	National CAHPS Benchmarking Database (State Data Source)
AHRQ	Adults who had a doctor's office or clinic visit in the last 12 months whose health providers showed respect for what they had to say.	Health Care Delivery	Process	Ambulatory	Subset of the denominator population in 3 categories according to their answer to the above question: "Always," "Usually," "Sometimes," or "Never"	Adults age 18 and over who reported going to a doctor's office or clinic in the last 12 months and answered the question "In the last 12 months how often did doctors or other health providers show respect for what you had to say?" Nonresponses and "Don't know" responses were excluded.	Medical Expenditure Panel Survey
AHRQ	Adults who had a doctor's office or clinic visit in the last 12 months whose health providers showed respect for what they had to say.	Health Care Delivery	Process	Ambulatory	Subset of the denominator population with the response "Always" to the question "In the last 6 months, how often did doctors or other health providers show respect for what you had to say?"	Number of adults who visited a doctor's office or clinic in the last 6 months	National CAHPS Benchmarking Database (State Data Source)
AHRQ	Children who had a doctor's office or clinic visit in the last 12 months whose health providers showed respect for what they had to say.	Health Care Delivery	Process	Ambulatory	Subset of the denominator population in 3 categories according to the answer to the above question: "Always," "Usually," "Sometimes," or "Never"	Children under age 18 who had a doctor's office or clinic visit in the last 12 months and with a valid answer to the question "In the last 12 months how often did doctors or other health providers show respect for what you had to say?" Nonresponses and "Don't know" responses were excluded.	Medical Expenditure Panel Survey
AHRQ	Children who had a doctor's office or clinic visit in the last 12 months whose health providers showed respect for what they had to say.	Health Care Delivery	Process	Ambulatory	Subset of the denominator population with the response "Always" to the question "In the last 6 months, how often did doctors or other health providers show respect for what you had to say?"	Children with Medicaid benefits who visited a doctor's office or clinic in the past 6 months	National CAHPS Benchmarking Database (State Data Source)

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Measures not publicly reported by each division and not related to hospitals have been excluded.

Division	Measure Name	Condition	Domain	Care Setting	Numerator	Denominator	Data Source
AHRQ	Adults who had a doctor's office or clinic visit in the last 12 months whose health providers spent enough time with them.	Health Care Delivery	Process	Ambulatory	Subset of the denominator population in 3 categories according to their answer to the above question: "Always," "Usually," "Sometimes," or "Never"	Adults age 18 and over who reported going to a doctor's office or clinic in the last 12 months and answered the question "In the last 12 months how often did doctors or other health providers spend enough time with you?" Nonresponses and "Don't know" responses were excluded.	Medical Expenditure Panel Survey
AHRQ	Adults who had a doctor's office or clinic visit in the last 12 months whose health providers spent enough time with them.	Health Care Delivery	Process	Ambulatory	Subset of the denominator population who reported "Always" to the question "In the last 6 months, how often did doctors or other health providers spend enough time with you?"	Adults who reported going to a doctor's office or clinic in the last 6 months	National CAHPS Benchmarking Database (State Data Source)
AHRQ	Children who had a doctor's office or clinic visit in the last 12 months whose health providers spent enough time with them.	Health Care Delivery	Process	Ambulatory	Subset of the denominator population in 3 categories according to their answer to the above question: "Always," "Usually," "Sometimes," or "Never"	Children under age 18 who visited a doctor's office or clinic to get health care in the past 12 months and with a valid answer to the question "In the last 12 months how often did doctors or other health providers spend enough time with you?"	Medical Expenditure Panel Survey
AHRQ	Rating of health care by adults who had a doctor's office or clinic visit in the last 12 months.	Health Care Delivery	Outcome	Ambulatory	Subset of the denominator population who rated their health care 9 or 10	Adults age 18 and over who reported going to a doctor's office or clinic in the last 12 months and answered the question "We want to know your rating of all your health care in the last 12 months from all doctors and other health providers. Use any number from 0 to 10 where 0 is the worst health care possible, and 10 is the best health care possible. How would you rate all your health care?" Nonresponses and "Don't know" responses were excluded.	Medical Expenditure Panel Survey
AHRQ	Rating of health care by adults who had a doctor's office or clinic visit in the last 12 months.	Health Care Delivery	Outcome	Ambulatory	Respondents who rated their health care as 9 or 10 on a scale from 0 to 10	Adults who reported going to a doctor's office or clinic in the last 12 months	National CAHPS Benchmarking Database (State Data Source)
AHRQ	Rating of health care for children who had a doctor's office or clinic visit in the last 12 months.	Health Care Delivery	Outcome	Ambulatory	Subset of the denominator population with a best rating (9 or 10) for health care received	Children under age 18 who had a doctor's office or clinic visit in the last 12 months and with a valid answer to the question "We want to know your rating of all your health care in the last 12 months from all doctors and other health providers. Use any number from 0 to 10 where 0 is the worst health care possible and 10 is the best health care possible. How would you rate all your health care?"	Medical Expenditure Panel Survey
AHRQ	Rating of health care for children who had a doctor's office or clinic visit in the last 12 months.	Health Care Delivery	Outcome	Ambulatory	Subset of the denominator population who or whose parents rated their health care as 9 or 10 based on the question "Using any number from 0 to 10 where 0 is the worst health care possible and 10 is the best health care possible, what number would you use to rate all your health care in the last 6 months?"	Children with Medicaid benefits who had a doctor's office or clinic visit in the last 6 months	National CAHPS Benchmarking Database (State Data Source)
AHRQ	Children who had a doctor's office or clinic visit in the last 12 months whose health providers spent enough time with them.	Health Care Delivery	Process	Ambulatory	Subset of the denominator population who reported "Always" to the question "In the last 6 months, how often did doctors or other health providers spend enough time with you?"	Children with Medicaid benefits who visited a doctor's office or clinic in the past 6 months	National CAHPS Benchmarking Database (State Data Source)
AHRQ	Adult hospital patients who sometimes or never had good communications with doctors in the hospital.	Health Care Delivery	Process	Hospital IP	Subset of denominator who responded "sometimes" or "never" to any of 3 survey questions: "During this hospital stay, how often did doctors treat you with courtesy and respect?", "During this hospital stay, how often did doctors listen carefully to you?" and "During this hospital stay, how often did doctors explain things in a way you could understand?"	Hospital patients age 18 and over discharged alive who had at least an overnight stay and no psychiatry-related diagnoses	National CAHPS Benchmarking Database
AHRQ	Adult hospital patients who sometimes or never had good communications with nurses in the hospital.	Health Care Delivery	Process	Hospital IP	Subset of denominator who responded "sometimes" or "never" to any of 3 survey questions: "During this hospital stay, how often did nurses treat you with courtesy and respect?", "During this hospital stay, how often did nurses listen carefully to you?" and "During this hospital stay, how often did nurses explain things in a way you could understand?"	Hospital patients age 18 and over discharged alive who had at least an overnight stay and no psychiatry-related diagnoses	National CAHPS Benchmarking Database
AHRQ	Adult hospital patients who sometimes or never had good communications about medications they received in the hospital.	Health Care Delivery	Process	Hospital IP	Subset of denominator who responded "sometimes" or "never" to either of 2 survey questions: "Before giving you any new medicine, how often did hospital staff tell you what the medicine was for?" and "Before giving you any new medicine, how often did hospital staff describe possible side effects in a way you could understand?"	Hospital patients age 18 and over discharged alive who had at least an overnight stay and no psychiatry-related diagnoses and who responded "yes" to the question "During this hospital stay, were you given any medicine that you had not taken before?"	National CAHPS Benchmarking Database
AHRQ	People under age 65 who were uninsured all year.	Health Care Delivery	Structure/Acces	Ambulatory	U.S. civilian noninstitutionalized population under age 65 who reported no private or public health insurance coverage at any time during the year	U.S. civilian noninstitutionalized population under age 65	Medical Expenditure Panel Survey
AHRQ	People under age 65 with any period of uninsurance during the year.	Health Care Delivery	Structure/Acces	Ambulatory	U.S. civilian noninstitutionalized population under age 65 years who reported they had no public or private health insurance coverage some time during the year	U.S. civilian noninstitutionalized population under age 65	Medical Expenditure Panel Survey
AHRQ	People under age 65 with any period of public insurance during the year.	Health Care Delivery	Structure/Acces	Ambulatory	U.S. civilian noninstitutionalized population under age 65 who reported they had public health insurance coverage some time during the past year	U.S. civilian noninstitutionalized population under age 65	Medical Expenditure Panel Survey
AHRQ	People without a usual source of care who indicated a financial or insurance reason for not having a source of care.	Health Care Delivery	Structure/Acces	Ambulatory	U.S. civilian noninstitutionalized population who indicated financial or insurance reasons for not having a usual source of care	U.S. civilian noninstitutionalized population who reported having no usual source of care	Medical Expenditure Panel Survey
AHRQ	People with a usual primary care provider.	Health Care Delivery	Structure/Acces	Ambulatory	U.S. civilian noninstitutionalized population who were determined to have a usual primary care provider	U.S. population (civilian noninstitutionalized)	Medical Expenditure Panel Survey

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Division	Measure Name	Condition	Domain	Care Setting	Numerator	Denominator	Data Source
AHRQ	Main reason people were unable to get or delayed in getting needed medical care, dental care, or prescription medicines in the last 12 months.	Health Care Delivery	Structure/Access	Ambulatory	Number of U.S. families who reported having at least 1 member experience difficulties or delays in obtaining health care because they 1) could not afford it, 2) their insurance company would not approve/cover/pay for it, 3) their insurance company required a referral they could not get, 4) the doctor refused the family's insurance plan, or 5) it was too expensive to get to the site for care	Number of U.S. families who reported having at least 1 member experience difficulties or delays in obtaining health care	Medical Expenditure Panel Survey
AHRQ	People with a usual source of care excluding hospital emergency rooms who has office hours nights or weekends.	Health Care Delivery	Structure/Access	Ambulatory	U.S. civilian noninstitutionalized population who reported having a usual source of care who subsequently reported that they have a provider who has office hours nights or weekends	U.S. civilian noninstitutionalized population who reported having a usual source of care	Medical Expenditure Panel Survey
AHRQ	People with difficulty contacting their usual source of care over the telephone.	Health Care Delivery	Structure/Access	Ambulatory	U.S. civilian noninstitutionalized population who report having a usual source of care who subsequently reported that they have difficulty contacting provider over the telephone	U.S. civilian noninstitutionalized population who report having a usual source of care	Medical Expenditure Panel Survey
AHRQ	Adults who did not have problems seeing a specialist they needed to see in the last 12 months.	Health Care Delivery	Structure/Access	Ambulatory	U.S. civilian noninstitutionalized adults age 18 and older who reported that, during the previous 12 months, they or a doctor thought they needed to see a specialist who subsequently reported no problems getting referral to a specialist in the past year	U.S. civilian noninstitutionalized adults age 18 and older who reported that, during the previous 12 months, they or a doctor thought they needed to see a specialist	Medical Expenditure Panel Survey
AHRQ	Children who did not have problems seeing a specialist they needed to see in the last 12 months.	Health Care Delivery	Structure/Access	Ambulatory	U.S. civilian noninstitutionalized children under age 18 whose parents reported that, during the previous 12 months, they or a doctor thought they needed to see a specialist and who subsequently reported no problems getting referral to a specialist in the past year	U.S. civilian noninstitutionalized children under age 18 whose parents reported that, during the previous 12 months, they or a doctor thought they needed to see a specialist	Medical Expenditure Panel Survey
AHRQ	Adult hospital patients who did not receive good communication about discharge information.	Health Care Delivery	Process	Hospital IP		60 Hospital patients age 18 and over discharged alive who had at least an overnight stay and no psychiatry-related diagnoses and who responded to the questions "During this hospital stay, did doctors, nurses or other hospital staff talk with you about whether you would have the help you needed when you left the hospital?" and "During this hospital stay, did you get information in writing about what symptoms or health problems to look out for after you left the hospital?"	National CAHPS Benchmarking Database
AHRQ	People who received an office-based or outpatient department visit in the calendar year.	Health Care Delivery	Process	Ambulatory	U.S. civilian noninstitutionalized population who reported at least 1 office-based/outpatient department visit	U.S. civilian noninstitutionalized population	Medical Expenditure Panel Survey
AHRQ	People who received a prescription medication in the calendar year.	Health Care Delivery	Process	Ambulatory	U.S. civilian noninstitutionalized population who reported at least 1 prescribed medication	U.S. civilian noninstitutionalized population	Medical Expenditure Panel Survey
AHRQ	People who received a dental visit in the calendar year.	Health Care Delivery	Process	Ambulatory	U.S. civilian noninstitutionalized population who reported at least 1 dental visit	U.S. civilian noninstitutionalized population	Medical Expenditure Panel Survey
AHRQ	People who received a hospital emergency room visit in the calendar year.	Health Care Delivery	Process	Ambulatory	U.S. civilian noninstitutionalized population who reported at least 1 emergency room visit	U.S. civilian noninstitutionalized population	Medical Expenditure Panel Survey
AHRQ	Hypertension admission rate (PQI 7).	Cardiovascular	Outcome	Ambulatory	All non-maternal discharges of age 18 years and older with ICD-9-CM principal diagnosis code for hypertension	Population in metro area or county, age 18 years and older	Healthcare Cost and Utilization Project
AHRQ	Low birth weight rate (PQI 9).	Population	Outcome	Ambulatory	Number of births with ICD-9-CM diagnosis code for less than 2500 grams in any field among cases meeting the inclusion and exclusion rules for the denominator	The definition of newborn is any neonate with either 1) an ICD-9-CM diagnosis code for an in-hospital live birth or 2) an admission type of newborn (ATYPE=4), age in days at admission equal to zero, and not an ICD-9-CM diagnosis code for an out-of-hospital birth. A neonate is defined as any discharge with age in days at admission between zero and 28 days (inclusive). If age in days is missing, then a neonate is defined as any DRG in MDC 15, an admission type of newborn (ATYPE=4), an ICD-9-CM diagnosis code for neonate observation and evaluation, or an ICD-9-CM diagnosis code for an in-hospital live birth.	Healthcare Cost and Utilization Project
AHRQ	Dehydration admission rate (PQI 10).	GI	Outcome	Ambulatory	All non-maternal discharges of age 18 years and older with ICD-9-CM principal diagnosis code for hypovolemia	Population in metro area or county, age 18 years and older	Healthcare Cost and Utilization Project
AHRQ	Angina without procedure admission rate (PQI 13).	Cardiovascular	Outcome	Ambulatory	All non-maternal discharges of age 18 years and older with ICD-9-CM principal diagnosis code for angina	Population in metro area or county, age 18 years and older	Healthcare Cost and Utilization Project
AHRQ	Chronic obstructive pulmonary disease (COPD) admission rate (PQI 5).	Respiratory	Outcome	Ambulatory	All non-maternal discharges of age 18 years and older with ICD-9-CM principal diagnosis code for COPD	Population in metro area or county, age 18 years and older	Healthcare Cost and Utilization Project
AHRQ	Bacterial pneumonia admission rate (PQI 11).	Infectious Diseases	Outcome	Ambulatory	All non-maternal discharges of age 18 years and older with ICD-9-CM principal diagnosis code for bacterial pneumonia	Population in metro area or county, age 18 years and older	Healthcare Cost and Utilization Project
AHRQ	Urinary tract infection admission rate (PQI 12).	Population	Outcome	Ambulatory	All non-maternal discharges of age 18 years and older with ICD-9-CM principal diagnosis code of urinary tract infection	Population in metro area or county, age 18 years and older	Healthcare Cost and Utilization Project
AHRQ	Perforated appendices per 1,000 admissions with appendicitis.	GI	Outcome	Ambulatory	Subset of the denominator with principal or secondary diagnosis code for perforation or abscess of appendix	Non-maternal/non-neonatal discharges with principal or secondary diagnosis of appendicitis, excluding transfer from other institutions	Healthcare Cost and Utilization Project
AHRQ	Adults with limited English proficiency with and without a usual source of care who offers language assistance.	Health Care Delivery	Structure/Access	Ambulatory	Subset of denominator with and without a usual source of care who offers language assistance	U.S. civilian noninstitutionalized population with limited English proficiency.	Medical Expenditure Panel Survey

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Division	Measure Name	Condition	Domain	Care Setting	Numerator	Denominator	Data Source
AHRQ	Prevention quality indicator 90: Overall prevention quality indicators (composite indicator).	Population	Outcome	Ambulatory	Component indicator numerators (includes PQI 1: Diabetes Short-term Complications Admission Rate; PQI 3: Diabetes Long-term Complications Admission Rate; PQI 5: Chronic Obstructive Pulmonary Disease (COPD) Admission Rate; PQI 7: Hypertension Admission Rate; PQI 8: Congestive Heart Failure (CHF) Admission Rate; PQI 10: Dehydration Admission Rate; PQI 11: Bacterial Pneumonia Admission Rate; PQI 12: Urinary Tract Infection Admission Rate; PQI 13: Angina without Procedure Admission Rate; PQI 14: Uncontrolled Diabetes Admission Rate; PQI 15: Adult Asthma Admission Rate; PQI 16: Rate of Lower-extremity Amputation among Patients with Diabetes)		
AHRQ	Prevention quality indicator 91: Acute prevention quality indicators (composite indicator).	Population	Outcome	Ambulatory	Component indicator numerators (includes PQI 10: Dehydration Admission Rate; PQI 11: Bacterial Pneumonia Admission Rate; PQI 12: Urinary Tract Infection Admission Rate)		
AHRQ	Prevention quality indicator 92: Chronic prevention quality indicators (composite indicator).	Population	Outcome	Ambulatory	Component indicator numerators (includes PQI 1: Diabetes Short-term Complications Admission Rate; PQI 3: Diabetes Long-term Complications Admission Rate; PQI 5: Chronic Obstructive Pulmonary Disease (COPD) Admission Rate; PQI 7: Hypertension Admission Rate; PQI 8: Congestive Heart Failure (CHF) Admission Rate; PQI 13: Angina without Procedure Admission Rate; PQI 14: Uncontrolled Diabetes Admission Rate; PQI 15: Adult Asthma Admission Rate; PQI 16: Rate of Lower-extremity Amputation among Patients with Diabetes)		
AHRQ	Mortality for selected procedures.	Population	Outcome	Hospital IP	NA	NA	Healthcare Cost and Utilization Project
AHRQ	Mortality for selected conditions.	Population	Outcome	Hospital IP	NA	NA	Healthcare Cost and Utilization Project
AHRQ	Patient safety for selected conditions.	Patient Safety	Outcome	Hospital IP	NA	NA	Healthcare Cost and Utilization Project
AHRQ	Pediatric quality indicator 90: Overall pediatric quality indicators (composite indicator).	Population	Outcome	Ambulatory	Component indicator numerators (includes PDI 14: Asthma Admission Rate; PDI 15: Diabetes Short-term Complications Admission Rate; PDI 16: Gastroenteritis Admission Rate; PDI 18: Urinary Tract Infection Admission Rate)	Population in metro area or county ages 3 months to 17 years	Healthcare Cost and Utilization Project
AHRQ	Pediatric quality indicator 91: Acute pediatric quality indicators (composite indicator).	Population	Outcome	Ambulatory	Component indicator numerators (includes PDI 14: Asthma Admission Rate; PDI 15: Diabetes Short-term Complications Admission Rate)	Population in metro area or county ages 3 months to 17 years	Healthcare Cost and Utilization Project
AHRQ	Pediatric quality indicator 92: Chronic pediatric quality indicators (composite indicator).	Population	Outcome	Ambulatory	Component indicator numerators (includes PDI 16: Gastroenteritis Admission Rate; PDI 18: Urinary Tract Infection Admission Rate)	Population in metro area or county ages 3 months to 17 years	Healthcare Cost and Utilization Project
AHRQ	Pediatric patient safety for selected conditions	Patient Safety	Outcome	Hospital IP	NA	NA	Healthcare Cost and Utilization Project
AoA	Improve well-being and prolong independence for elderly individuals as a result of Administration on Aging's (AoA's) Title III home and community based services.	Chronic & Elder Care	Outcome	Health System	1. # of caregivers reporting that services helped them provide care longer. 2. # of clients without a car or far from transportation. 3. # of congregate meal recipients who live alone. 4. # of home delivered meal recipients with 3+ IADL limitations.	1. Random sample of caregivers responding to telephone survey. 2. Random sample of transportation riders responding to telephone survey. 3. All congregate meal clients. 4. All home delivered meal recipients.	AoA State Program Reports and random sample of service recipients responding to telephone surveys
AoA	90% of home delivered meal/ congregate meal/ and transportation clients rate services good to excellent.	Health Care Delivery	Patient Satisfaction	Home Health	Number of clients participating in random sample of all clients who indicate service was good to excellent	All clients surveyed	Client Surveys
AoA	Increase the number of clients served per million dollars of Administration on Aging (AoA) funding.	Population	Efficiency	Health System	Number of people served through Older Americans Act Services	Associated Year's Subtotal State and Community Based Services from Congressional Justification of the budget	AoA State Program Reports Congressional Justification of the Budget
AoA	Increase the % of OAA clients served who live in rural areas to 10% greater than the % of all US elderly who live in rural areas.	Population	Outcome	Health System	Number of registered clients served who live in rural areas	All clients served	AoA State Program Reports US Census
AoA	Number of states that serve more elderly living below the poverty level than the prior year.	Population	Outcome	Health System	Number of registered clients served who live below the poverty level	All clients served	AoA State Program Reports
AoA	Increase the number of severely disabled clients who receive selected home and community-based services.	Health Care Delivery	Outcome	Health System	Number of older persons with 3 or more Activity of Daily Living Limitations who receive home-delivered meals	All older persons who receive home-delivered meals	AoA State Program Reports
AoA	For Title VI services increase the number of units of service provided to Native Americans/thousand dollars of Administration on Aging (AoA) funding.	Population	Efficiency	Health System	Number of service units reported	Associated Year's Subtotal for Title VI from Congressional Justification of the budget	AoA State Program Reports Congressional Justification of the Budget
AoA	Increase the number of ombudsman complaint resolved or partially resolved per million dollars of Administration on Aging (AoA) funding.	Health Care Delivery	Efficiency	Health System	Number of complaints resolved or partially resolved documented by ombudsman	Total number of complaints documented by ombudsman	Ombudsman Reporting Tool
AoA	Number of the Medicare beneficiaries that receive training from the senior Medicare patrol program per million dollars of Administration on Aging (AoA) funding.	Health Care Delivery	Efficiency	Health System	Number of beneficiaries trained	Amount appropriated to senior Medicare patrol	OIG Smart Facts
CDC	Reduce health disparities in the occurrence of folic acid-preventable spina bifida and anencephaly by reducing the birth prevalence of these conditions among Hispanics.	Population	Outcome	Health System	The numerator is the number of children diagnosed with spina bifida and anencephaly in birth defects surveillance programs participating in the National Birth Defects Prevention Network (NBDPN).	The denominator reflects the number of live births covered by birth defect surveillance programs participating in the National Birth Defects Prevention Network (NBDPN).	National Birth Defects Prevention Network (NBDPN), a national network of state and population-based programs for birth defects surveillance
CDC	Increase the percentage of health providers who screen women of childbearing age for risk of an alcohol-exposed pregnancy and provide appropriate, evidence-based interventions for those at risk.	Behavioral Health	Outcome	Ambulatory	The numerator is the number of healthcare providers using evidence-based interventions for women of childbearing age who are at risk for an alcohol exposed pregnancy.	The denominator is a nationally representative sample of healthcare providers serving women of childbearing age--including Obstetrician/Gynecologists.	Project CHOICES
CDC	Ensure that 95% of all infants are screened for hearing loss by 1 month of age.	HEENT	Outcome	Health System	The numerator is the number of infants screened.	The denominator is all infants born in the U.S.	State Health Departments and/or their agents
CDC	Reduce the age-adjusted annual rate of breast cancer mortality per 100,000 female population.	Cancer	Outcome	Health System	Number of female deaths due to breast cancer (ICD-10 code C50)	Number of females	National Vital Statistics System, NCHS

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CDC	Increase the percentage of women age 40+ who have had a mammogram within the previous two years.	Cancer	Outcome	Health System	BRFSS surveyed women age 40 and older reporting having received a mammogram in the previous two years.	BRFSS surveyed women age 40 and older	Behavioral Risk Factor Surveillance System (BRFSS)
CDC	Decrease the age-adjusted rate of invasive cervical cancer per 100,000 women ages 20+ screened through the National Breast and Cervical Cancer Early Detection Program (NBCCEDP) (excludes invasive cervical cancer diagnosed on the initial program screen).	Cancer	Outcome	Hospital IP	Women age 20 and older receiving a (subsequent) NBCCEDP funded pap test leading to a diagnosis of invasive cervical cancer	Women age 20 and older receiving a (subsequent) NBCCEDP funded pap test	National Breast and Cervical Cancer Early Detection Program (NBCCEDP) Minimum Data Elements (MDE)
CDC	Reduce the age-adjusted annual rate of trachea, bronchus, and lung cancer mortality per 100,000 population.	Cancer	Outcome	Health System	Number of deaths due to trachea, bronchus, and lung cancer (ICD-10 codes C33-C34)	Number of persons	National Vital Statistics System, NCHS
CDC	Maintain the age-adjusted rate of incidence of end-stage renal disease (ESRD) per 100,000 diabetic population at no higher than its current rate.	Diabetes	Outcome	Health System	Number of persons who began treatment (i.e., dialysis or kidney transplantation) for ESRD in the United States for whom diabetes was listed as the primary cause of renal failure	Estimated number of U.S. residents with diabetes obtained from the weighted sample of the civilian noninstitutionalized population in the National Health Interview Survey (NHIS). Three-year moving averages were used to improve the precision of the estimated population with diabetes, and incidence was age-adjusted on the basis of the 2000 U.S. standard population.	US Renal Data System
CDC	Increase the age-adjusted percentage of persons with diabetes age 18+ who receive an A1C test at least two times per year.	Diabetes	Process	Health System	Number of adults with diabetes who report that a doctor, nurse, or other health professional has checked their glycated hemoglobin (HbA1c) two or more times in the previous year	Number of adults who report that they have ever been diagnosed with diabetes and responded to the A1C test survey question, excluding persons diagnosed only during pregnancy and those with prediabetes or borderline diabetes. Missing values, refusals, and responses of "don't know" are not included in the denominator.	Behavioral Risk Factor Survey (BRFSS)
CDC	Reduce the age-adjusted annual rate per 100,000 population of coronary heart disease and stroke-related deaths.	Cardiovascular	Outcome	Health System	Coronary deaths: Number of coronary heart disease-related deaths (ICD-10 codes, I20-I25). Stroke deaths: Number of stroke related deaths (ICD-10 I60-I69).	Number of persons	National Vital Statistics System, NCHS
CDC	Increase the age-adjusted proportion of persons age 18+ with high blood pressure who have it controlled.	Cardiovascular	Outcome	Health System	Number of persons aged 18 years and older, excluding pregnant women, who have been told by a doctor or other health professional to take prescribed blood pressure medicine and are now taking it and whose mean systolic blood pressure is less than 140 mm Hg and mean diastolic blood pressure is less than 90 mm Hg	Number of persons with high blood pressure/hypertension aged 18 years and older, excluding pregnant women	National Health and Nutrition Examination Survey (NHANES)
CDC	The number of indigenous cases of paralytic polio, rubella, measles, Haemophilus influenzae invasive disease (type b and unknown types), diphtheria, congenital rubella syndrome, and tetanus will remain at or be reduced to 0 by 2010.	Infectious Diseases	Outcome	Health System	The numerator is the number of cases of indigenous diseases (by specific disease) reported to the NDSS, NCRSR and ABCs systems.	The denominator is the U.S. population.	National Notifiable Disease Surveillance System (NDSS), National Congenital Rubella Syndrome Registry (NCRSR), Active Bacterial Core Surveillance (ABCs), Emerging Infections Programs
CDC	Reduce the number of indigenous cases of mumps in persons of all ages from 666 (1998 baseline) to 0 by 2010.	Infectious Diseases	Outcome	Health System	The numerator is the number of cases of indigenous mumps reported to NNDSS.	The denominator is the U.S. population.	National Notifiable Disease Surveillance System (NNDSS)
CDC	Reduce the number of indigenous cases of pertussis among children under 7 years of age.	Infectious Diseases	Outcome	Health System	The numerator is the number of pertussis cases reported to NNDSS.	The denominator is the number of US children under 7 years of age.	National Notifiable Disease Surveillance System (NNDSS)
CDC	Improve capacity to conduct immunization safety studies by increasing the total population of managed care organization members from which the Vaccine Safety Datalink (VSD) data are derived annually to 13 million by 2010.	Immunizations	Process	Health System	The numerator for this measure is derived annually as the estimated number of people enrolled in all managed care organizations participating in the Vaccine Safety Datalink in the past year.	Since this number is not expressed as a percentage, there is no denominator for measure.	Vaccine Safety Datalink (VSD)
CDC	Achieve or sustain immunization coverage of at least 90% in children 19- to 35-months of age for: 4 doses of diphtheria, tetanus, and acellular pertussis (DTaP) vaccine, 3 doses haemophilus influenza type B (Hib) vaccine, 1 dose measles-mumps-rubella (MMR) vaccine, 3 doses hepatitis B vaccine, 3 doses polio vaccine, 1 dose varicella vaccine, 4 doses pneumococcal conjugate vaccine (PCV7).	Immunizations	Process	Health System	The numerator varies by antigen, or antigen groups, but consists of the number of children aged 19 to 35 months receiving the number of doses recommended for their age. Performance for newly recommended vaccines, such as pneumococcal conjugate and influenza vaccines, are reported once data from the National Immunization Survey become available.	The denominator for each vaccine antigen (or groups on antigens) is the number of U.S. children ages 19 to 35 months.	National Immunization Survey (NIS)
CDC	Achieve or sustain immunization coverage of at least 90% in adolescents 13 to 15 years of age for: 1 dose of Tetanus and diphtheria (Td) containing vaccine.	Immunizations	Process	Health System	Numerator is the number of adolescents 13 to 15 years of age who are reported to have received at least 1 dose of Td-containing vaccine.	The denominator is the number of U.S. adolescents 13 to 15 years of age.	National Health Interview Survey through 2003 and will be tracked again through the NIS-Teen Survey starting in 2007
CDC	Increase the rate of flu and pneumococcal pneumonia vaccination in persons 65 years of age and older to 90% by 2010.	Immunizations	Process	Health System	Numerators for the influenza and pneumococcal measures to protect adults age 65 years and older are based on the number of adults 65 and older who report receiving an influenza vaccination in the past 12 months or who report EVER receiving pneumococcal vaccination.	The denominators for the influenza and pneumococcal measures are the number of adults aged 65 years and older.	National Health Interview Survey (NHIS)
CDC	By 2010, reduce the rates of invasive pneumococcal disease in children under 5 years of age to 46 per 100,000 and in adults aged 65 years and older to 42 per 100,000.	Infectious Diseases	Outcome	Health System	Numerator is the number of cases of invasive pneumococcal disease in children under 5 years of age and among adults 65 years of age and older as reported to the ABCs system.	The denominators are the number of children under 5 years of age and the number of adults 65 years and older in the ABCs surveillance population.	Active Bacterial Core surveillance (ABCs)/Emerging Infections Program Network
CDC	By 2010, decrease the number of antibiotic courses prescribed for ear infections in children under 5 years of age to 50 per 100 children.	Infectious Diseases	Outcome	Health System			National Ambulatory Medical Care Survey (NAMCS) and the National Hospital Ambulatory Medical Care Survey (NHAMCS)

Quality Measurement and Public Reporting in the Current Healthcare Environment

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CDC	Reduce the rate of central line associated bloodstream infections in medical/surgical intensive care unit (ICU) patients.	Patient Safety	Outcome	Hospital IP	Patients with a bloodstream infection that have a central line catheter and who reside in an intensive care unit (ICU)	All intensive care unit patients with a central line catheter (e.g., central line days)	National Healthcare Safety Network (NHSN)
CDC	Decrease the number of pediatric AIDS cases.	Infectious Diseases	Outcome	Health System			HIV/AIDS Reporting System (eHARS)
CDC	Reduce the black: White rate ratio of HIV/AIDS diagnoses.	Infectious Diseases	Outcome	Health System	Rate of HIV/AIDS diagnoses among blacks in the U.S. (per 100,000 blacks in the U.S.)	Rate of HIV/AIDS diagnoses among whites in the U.S. (per 100,000 whites in the U.S.)	HIV/AIDS Reporting System (eHARS)
CDC	Reduce the Hispanic: White rate ratio of HIV/AIDS diagnoses.	Infectious Diseases	Outcome	Health System	Rate of HIV/AIDS diagnoses among hispanics in the U.S. (per 100,000 hispanics in the U.S.)	Rate of HIV/AIDS diagnoses among whites in the U.S. (per 100,000 whites in the U.S.)	HIV/AIDS Reporting System (eHARS)
CDC	Decrease risky sexual and drug using behaviors among persons at risk for acquiring HIV.	Infectious Diseases	Outcome	Health System	For MSM - # of men who had unprotected anal sex with a person of the opposite or unknown HIV status in the last 12 months. For IDU - # of persons who shared needles or had unprotected anal sex with a person of opposite or unknown HIV status in the last 12 months. For HRH - # of persons who had sex with a person of opposite or unknown HIV status in the last 12.	For each group (MSM, IDU, HRH) - number of persons enrolled in the NHBS system	National HIV Behavior Surveillance (NHBS) System
CDC	Increase the proportion of persons at risk for HIV who received HIV prevention interventions.	Infectious Diseases	Process	Health System	Number of persons in each group (MSM, IDU, HRH) who received individual or group level HIV prevention interventions in the past year	For each group (MSM, IDU, HRH)-number of persons enrolled in the NHBS system	National HIV Behavior Surveillance (NHBS) System
CDC	Increase the proportion of HIV-infected people in the United States who know they are infected.	Infectious Diseases	Outcome	Health System	Estimated number of people living with HIV who are aware of their status	Estimated number of persons living with HIV	Special studies using eHARS
CDC	Increase the proportion of persons with HIV-positive test results from publicly funded counseling and testing sites who receive their test results.	Infectious Diseases	Process	Ambulatory	Number of HIV-infected persons who receive their HIV test results at publicly funded HIV counseling and testing sites	All HIV-infected persons tested at publicly funded HIV counseling and testing sites	Data are from the Counseling, Testing, and Referral System (CTR) which will transition to the Program Evaluation and Monitoring System (PEMS)
CDC	Increase the proportion of people with HIV diagnosed before progression to AIDS.	Infectious Diseases	Outcome	Health System	The numerator is the estimated number of persons during a calendar year diagnosed with HIV at least one month prior to being diagnosed with AIDS	The denominator is the estimated number of persons diagnosed with AIDS during a calendar year.	Electronic HIV/AIDS Reporting System
CDC	Reduce the rate of new cases of hepatitis A (per 100,000 population).	Infectious Diseases	Outcome	Health System	Reported cases of acute hepatitis A	U.S. resident population	National Notifiable Diseases Surveillance System (NNDSS)
CDC	Reduce the rate of new cases of hepatitis B (per 100,000 population).	Infectious Diseases	Outcome	Health System	Reported cases of acute hepatitis B	U.S. resident population	National Notifiable Diseases Surveillance System (NNDSS)
CDC	Increase the proportion of individuals knowing their hepatitis C virus infection status.	Infectious Diseases	Outcome	Health System	Number of persons with antibody to hepatitis C virus who are aware of their status	Number of persons with antibody to HCV located on follow-up interview	The National Health and Nutrition Examination Survey (NHANES)
CDC	Reduce pelvic inflammatory disease in the United States.	Infectious Diseases	Outcome	Health System			The National Disease and Therapeutic Index (NDTI) (IMS Health)
CDC	Reduce the prevalence of chlamydia among high-risk women under age 25.	Infectious Diseases	Outcome	Health System	Number of women entering National Job Training Program who test positive for Chlamydia	Number of women entering National Job Training Program who are tested for Chlamydia	The U.S. Department of Labor, National Job Training Program; CDC, IPP Chlamydia Prevalence Monitoring Project
CDC	Reduce the prevalence of chlamydia among women under age 25, in publicly funded family planning clinics.	Infectious Diseases	Outcome	Ambulatory	The number of positive tests for chlamydia in publicly funded family planning clinics among women under age 25	Number of chlamydia tests performed on women under age 25 in publicly funded family planning clinics	CDC, IPP Chlamydia Prevalence Monitoring Project
CDC	Reduce the incidence of gonorrhea in women aged 15 to 44 (per 100,000 population).	Infectious Diseases	Outcome	Health System	Reported cases of gonorrhea in women ages 15-44	U.S. population of women ages 15-44	STD Morbidity Surveillance System, CDC
CDC	Eliminate syphilis in the United States.	Infectious Diseases	Outcome	Health System	Number of reported cases of primary and secondary syphilis in the U.S.	U.S. resident population.	STD Morbidity Surveillance System, CDC
CDC	Reduce the incidence of primary & secondary syphilis in men (per 100,000 population).	Infectious Diseases	Outcome	Health System	Number of reported cases in males of primary and secondary syphilis in the U.S.	Resident population of males in the U.S.	STD Morbidity Surveillance System, CDC
CDC	Reduce the incidence of primary & secondary syphilis in women (per 100,000 population).	Infectious Diseases	Outcome	Health System	Number of reported cases in females of primary and secondary syphilis in the U.S.	Resident population of females in the U.S.	STD Morbidity Surveillance System, CDC
CDC	Reduce the incidence of congenital syphilis per 100,000 live births.	Infectious Diseases	Outcome	Health System	Number of reported cases of congenital syphilis in the U.S.	Number of live births in the U.S.	STD Morbidity Surveillance System, CDC
CDC	Reduce the racial disparity of primary & secondary syphilis (reported ratio is black:white).	Infectious Diseases	Outcome	Health System	Rate of primary and secondary syphilis among blacks in the U.S (reported cases of P&S syphilis in blacks per 100,000 population)	Rate of primary and secondary syphilis among whites in the U.S. (reported cases of P&S syphilis in whites per 100,000 populations of white, non-hispanics)	STD Morbidity Surveillance System, CDC
CDC	Decrease the rate of cases of tuberculosis (TB) among U.S.-born persons (per 100,000 population).	Infectious Diseases	Outcome	Health System	Number of incident cases among U.S. born persons in the United States	Resident population of U.S. born population in the U.S.	National TB Surveillance System
CDC	Increase the percentage of tuberculosis (TB) patients who complete a course of curative TB treatment within 12 months of initiation of treatment (some patients require more than 12 months).	Infectious Diseases	Outcome	Health System	Number of TB patients who complete a course of curative TB treatment within 12 months of initiation of treatment.	Population of TB patients in the U.S. for whom treatment for 12 months was indicated	National TB Surveillance System
CDC	Increase the percentage of tuberculosis (TB) patients with initial positive cultures who also have drug susceptibility results.	Infectious Diseases	Outcome	Health System	Number of TB patients in the U.S. with initial positive cultures who also have drug susceptibility results	Number of TB patients with only initial positive cultures	National TB Surveillance System
CDC	Increase the percentage of contacts of infectious (Acid-Fast Bacillus [AFB] smear-positive) cases that are placed on treatment for latent TB infection and complete a treatment regimen.	Infectious Diseases	Outcome	Health System	Number of contacts of infectious (Acid-Fast Bacillus [AFB] smear-positive) cases that are placed on treatment for latent TB infection and complete a treatment regimen	The total number of contact of patients with AFB smears positive results.	National TB Surveillance System and the national Aggregate Reports for TB Program Evaluation

## HHS Measure Inventory

*Measures not publicly reported by each division and not related to hospitals have been excluded.*

Division	Measure Name	Condition	Domain	Care Setting	Numerator	Denominator	Data Source
CDC	By 2010, reduce the incidence and infection with four key foodborne pathogens by 50%.	Infectious Diseases	Outcome	Health System			FoodNet (The Foodborne Diseases Active Surveillance Network) Data
CDC	Number of children under age 6 with elevated blood lead levels.	Population	Outcome	Health System	This measure estimates the number of lead poisoned children, not a fraction or percentage. Consequently, there is no numerator.	This measure estimates the number of lead poisoned children, not a fraction or percentage. Consequently, there is no denominator.	NHANES, U.S. Census estimated and projected national populations
CDC	Achieve a vaccination rate of 60% among non-institutionalized high-risk adults aged 18 to 64 years for flu and pneumococcal pneumonia by 2010.	Infectious Diseases	Process	Health System	Numerators for the measures to protect the civilian non-institutionalized high-risk population age 18-64 are based on the number of these adults who report receiving an influenza vaccination in the past 12 months or who report EVER receiving pneumococcal vaccination.	The denominators for the influenza and pneumococcal measures are the number of high-risk persons age 18-64 years old.	National Health Interview Survey (NHIS)
CDC	Percent of women 40 years of age and older diagnosed with breast cancer whose cancer was diagnosed at in situ or localized stage.	Cancer	Outcome	Health System	BRFSS surveyed women age 40 and older reporting having received a mammogram in the previous two years	BRFSS surveyed women age 40 and older	Behavioral Risk Factor Surveillance System (BRFSS)
CDC	The estimated number of cases of invasive Methicillin-resistant Staphylococcus aureus (MRSA) infection.	Patient Safety	Outcome	Hospital IP	Patients with a bloodstream infection that have a central line catheter and who reside in an intensive care unit	All intensive care unit patients with a central line catheter (e.g., central line days)	National Healthcare Safety Network (NHSN)
CMS	Plan membership retention between program years.	Health Care	Structure/Acct	Health System			MBD
CMS	Delays in appeals decisions.	Health Care	Structure/Acct	Health System			IRE
CMS	Acute care hospitalization—home health.	Population	Outcome	Home Health	Patients who had to be admitted to the hospital	All patients are eligible for this outcome	OASIS Data
CMS	AMI-1: Aspirin at arrival—hospital.	Cardiovascular	Process	Hospital IP	AMI patients who received aspirin within 24 hours before or after hospital arrival	AMI patients without aspirin contraindications	Medical Records
CMS	AMI-2: Aspirin prescribed at discharge—hospital.	Cardiovascular	Process	Hospital IP	AMI patients who are prescribed aspirin at hospital discharge	AMI patients without aspirin contraindications	Medical Records
CMS	AMI-3: angiotensin converting enzyme inhibitor (ACEI) or angiotensin receptor blocker (ARB) for left ventricular systolic dysfunction (LVSD)—hospital.	Cardiovascular	Process	Hospital IP	AMI patients who are prescribed an ACEI or ARB at hospital discharge	AMI patients with LVSD and without both ACEI and ARB contraindications	Medical Records
CMS	AMI-4: Adult smoking cessation advice/counseling—hospital.	Cardiovascular	Process	Hospital IP	AMI patients (cigarette smokers) who receive smoking cessation advice or counseling during the hospital stay	AMI patients with a history of smoking cigarettes anytime during the year prior to hospital arrival	Medical Records
CMS	AMI-5: Beta-blocker prescribed at discharge—hospital.	Cardiovascular	Process	Hospital IP	AMI patients who are prescribed a beta-blocker at hospital discharge	AMI patients without beta-blocker contraindications	Medical Records
CMS	AMI-6: Beta-blocker at arrival—hospital.	Cardiovascular	Process	Hospital IP	AMI patients who received a beta-blocker within 24 hours after hospital arrival	AMI patients without beta-blocker contraindications	Medical Records
CMS	AMI-7a: Fibrinolytic therapy received within 30 minutes of hospital arrival—hospital.	Cardiovascular	Process	Hospital IP	AMI patients whose time from hospital arrival to fibrinolysis is 30 minutes or less	AMI patients with ST-elevation or LBBB on ECG who received fibrinolytic therapy	Medical Records
CMS	Any emergent care—home health.	Population	Outcome	Home Health	Patients who need urgent, unplanned medical care	All patients are eligible for calculation of this outcome.	OASIS Data
CMS	Dialysis Facility Compare (DFC) facility adequacy of dialysis (end-stage renal disease [ESRD]).	Renal & GU	Outcome	ESRD/Dialysis	Number of eligible hemodialysis patients at the facility during the calendar year with a most common URR value of 65% or higher	Number of eligible hemodialysis patients at the facility during the calendar year. All hemodialysis patients who have had ESRD for at least 1 year	Claims/Encounter data
CMS	Dialysis Facility Compare (DFC) facility anemia management (end-stage renal disease [ESRD]).	Renal & GU	Outcome	ESRD/Dialysis	Number of eligible EPO-treated dialysis patients at the facility during the calendar year with an average hematocrit of 33 or higher	Number of eligible EPO-treated dialysis patients at the facility during the calendar year. All EPO-treated dialysis patients who have had ESRD for at least 90 days	Claims/Encounter data
CMS	Dialysis Facility Compare (DFC) facility patient survival classification (end-stage renal disease [ESRD]).	Renal & GU	Outcome	ESRD/Dialysis	Number of deaths among eligible patients at the facility during the 4-year time period	Number of deaths that would be expected among eligible patients at the facility during the four-year time period, given the patient mix at the facility. All dialysis patients who have reached day 90 of ESRD	Claims/Encounter data
CMS	Discharge to the community—home health.	Health Care Delivery	Outcome	Home Health	Patients who are able to live in the community at discharge	All patients are eligible for calculation of this outcome, except when the response to M0870 Discharge Disposition is 'Unknown'.	OASIS Data
CMS	AMI-8a: Primary percutaneous coronary intervention (PCI) received within 90 minutes of hospital arrival—hospital.	Cardiovascular	Process	Hospital IP	AMI patients whose time from hospital arrival to PCI is 90 minutes or less	AMI patients with ST-elevation or LBBB on ECG who received PCI	Medical Records
CMS	ESRD-11a anemia management CPM IIa: Assessment of iron stores among anemic patients or patients prescribed Epoetin in hemodialysis patients.	Renal & GU	Process	ESRD/Dialysis	Hemodialysis patients with at least one documented transferrin saturation and serum ferritin concentration result during the three-month study period	All adult (> 18 years old) hemodialysis patients if the first monthly hemoglobin is > 11 g/dL for at least one of the study months or if prescribed Epoetin at any time during the study period regardless of hemoglobin level	Medical Records and Administrative Data
CMS	ESRD-10 anemia management CPM I: Target hemoglobin for Epoetin therapy.	Renal & GU	Outcome	Ambulatory	Patients with documented mean hemoglobin 11-12 g/dL during the study period	All adult (> 18 years old) hemodialysis or peritoneal dialysis patients	Medical Records and Administrative Data
CMS	ESRD-1 hemodialysis (HD) adequacy CPM I: Monthly measurement of delivered hemodialysis dose.	Renal & GU	Process	ESRD/Dialysis	Patients with documented monthly adequacy measurements (URR or Kt/V)	All adult (> 18 years old) patients	Medical Records and Administrative Data
CMS	ESRD-12a anemia management CPM IIb: Maintenance of iron stores at target in hemodialysis patients.	Renal & GU	Outcome	ESRD/Dialysis	Hemodialysis patients with at least one documented transferrin saturation greater than or equal to 20% and at least one documented serum ferritin concentration greater than or equal to 100 ng/mL during the three-month study period	All adult (> 18 years old) hemodialysis patients if the first monthly hemoglobin is < 11 g/L for at least one of the study months or, if prescribed epoetin at anytime during the study period, regardless of hemoglobin level	Medical Records and Administrative Data
CMS	ESRD-12b anemia management CPM IIb: Maintenance of iron stores at target in peritoneal dialysis patients.	Renal & GU	Outcome	ESRD/Dialysis	Peritoneal dialysis patients with at least one documented transferrin saturation greater than or equal to 20% and at least one documented serum ferritin concentration greater than or equal to 100 ng/mL during the six-month study period	All adult (> 18 years old) peritoneal dialysis patients if the first monthly hemoglobin is < 11 g/L for at least one of the two-month periods during the six-month study period or, if prescribed epoetin at anytime during the study period, regardless of hemoglobin level	Medical Records and Administrative Data
CMS	ESRD-11b anemia management CPM IIa: Assessment of iron stores among anemic patients or patients prescribed Epoetin in peritoneal dialysis patients.	Renal & GU	Process	ESRD/Dialysis	Peritoneal dialysis patients with at least two documented transferrin saturation and serum ferritin concentration results during the six-month study period	All adult (> 18 years old) peritoneal dialysis patients if the first monthly hemoglobin is < 11 g/L for at least one of the two-month periods or if prescribed epoetin at anytime during the study period regardless of hemoglobin level	Medical Records and Administrative Data

## HHS Measure Inventory

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Division	Measure Name	Condition	Domain	Care Setting	Numerator	Denominator	Data Source
CMS	ESRD-13a anemia management CPM III: Administration of supplemental iron in hemodialysis patients.	Renal & GU	Process	ESRD/Dialysis	Hemodialysis patients prescribed intravenous iron in at least one of the study months	All adult (> 18 years old) hemodialysis patients if first monthly hemoglobin < 11g/dL for at least one month out of the three month-period or prescribed epoetin at any time during the study period regardless of hemoglobin level, with at least one transferrin saturation < 20% or at least one serum ferritin concentration < 100ng/mL	Medical Records and Administrative Data
CMS	ESRD-13b anemia management CPM III: Administration of supplemental iron in peritoneal dialysis patients.	Renal & GU	Process	ESRD/Dialysis	Peritoneal dialysis patients prescribed intravenous iron in at least one of the two-month periods during the six-month study period	All adult (> 18 years old) peritoneal dialysis patients if first hemoglobin in a two month period < 11g/dL for at least one of the two-month periods during the six-month study period or prescribed epoetin at any time during the study period regardless of hemoglobin level, with at least one transferrin saturation < 20% or at least one serum ferritin concentration < 100 ng/mL	Medical Records and Administrative Data
CMS	ESRD-2 hemodialysis (HD) adequacy CPM II: Method of measurement of delivered hemodialysis dose.	Renal & GU	Process	ESRD/Dialysis	Patients for whom the delivered hemodialysis dose measured by formal urea kinetic modeling or the Daugirdas II formula	All adult (> 18 years old) patients	Medical Records and Administrative Data
CMS	ESRD-3 hemodialysis (HD) adequacy CPM III: Minimum delivered hemodialysis dose.	Renal & GU	Process	ESRD/Dialysis	Patients whose average daily dose of hemodialysis was spKt/V greater than or equal to 1.2 during the study period	All adult (> 18 years old) patients who have been on hemodialysis for six months or more and dialyzing three times per week	Medical Records and Administrative Data
CMS	ESRD-4 peritoneal dialysis (PD) adequacy CPM I: Measurement of total solute clearance at regular intervals.	Renal & GU	Process	ESRD/Dialysis	Patients with total solute clearance for urea and creatinine measured at least once in a six month time period	All adult (> 18 years old) peritoneal dialysis patients	Medical Records and Administrative Data
CMS	ESRD-5 peritoneal dialysis (PD) adequacy CPM II: Calculate weekly Kt/V urea and creatinine clearance in a standard way.	Renal & GU	Process	ESRD/Dialysis	Patients with weekly creatinine clearance normalized to 1.73m <sup>2</sup> body surface area (BSA) and total weekly Kt/Vurea used to measure delivered peritoneal dialysis dose	All adult (> 18 years old) peritoneal dialysis patients	Medical Records and Administrative Data
CMS	ESRD-6a peritoneal dialysis (PD) adequacy CPM III: Delivered dose of peritoneal dialysis at target for continuous ambulatory peritoneal dialysis (CAPD) patients.	Renal & GU	Process	ESRD/Dialysis	CAPD patients, the delivered peritoneal dialysis dose was a weekly Kt/V urea of at least 2.0 and a weekly creatinine clearance of at least 60 L/week/1.73 m <sup>2</sup> for high and high-average transporters, and at least 50 L/week/1.73m <sup>2</sup> for low and low-average transporters or evidence that the prescription was changed according to NKF-K/DOQI recommendations, during the study period	All adult (> 18 years old) peritoneal dialysis patients	Medical Records and Administrative Data
CMS	ESRD-6b peritoneal dialysis (PD) adequacy CPM III: Delivered dose of peritoneal dialysis at target for cyclical patients with a day time dwell (continuous cycling peritoneal dialysis [CCPD] patients).	Renal & GU	Process	ESRD/Dialysis	Cyclical patients with a daytime dwell (CCPD), the delivered peritoneal dialysis dose was a weekly Kt/Vurea of at least 2.1 and a weekly creatinine clearance of at least 63 L/week/1.73 m <sup>2</sup> or evidence that the prescription was changed according to NKF-K/DOQI recommendations, during the study period	All adult (> 18 years old) peritoneal dialysis patients	Medical Records and Administrative Data
CMS	ESRD-6c peritoneal dialysis (PD) adequacy CPM III: Delivered dose of peritoneal dialysis at target for cyclical patients without a day time dwell (nightly intermittent peritoneal dialysis [NIPD] patients).	Renal & GU	Process	ESRD/Dialysis	Cyclical patients without a daytime dwell (NIPD), the delivered peritoneal dialysis dose was a weekly Kt/Vurea of at least 2.2 and a weekly creatinine clearance of at least 66 L/week/1.73 m <sup>2</sup> or evidence that the prescription was changed according to NKF-K/DOQI recommendations, during the study period	All adult (> 18 years old) peritoneal dialysis patients	Medical Records and Administrative Data
CMS	ESRD-7a vascular access CPM I: Incident patients-maximizing placement of arterial venous fistula (AVF).	Renal & GU	Process	ESRD/Dialysis	Incident patients who were dialyzed using an AVF during their last hemodialysis treatment during the study period	Incident (patients initiating their most recent course of hemodialysis on or between January 1 and August 31 of the year prior to the study year) adult (>18 years old) patients	Medical Records and Administrative Data
CMS	ESRD-7b vascular access CPM I: Prevalent patients maximizing placement of arterial venous fistula (AVF).	Renal & GU	Process	ESRD/Dialysis	Prevalent patients who were dialyzed using an AVF during their last hemodialysis treatment during the study period	Prevalent adult (> 18 years old) patients	Medical Records and Administrative Data
CMS	ESRD-8 vascular access CPM II: Minimizing use of catheters as chronic dialysis access.	Renal & GU	Process	ESRD/Dialysis	Patients who were dialyzed with a chronic catheter continuously for 90 days or longer prior to the last hemodialysis session during the study period	All adult (> 18 years old) patients	Medical Records and Administrative Data
CMS	ESRD-9 vascular access CPM III: Monitoring arterial venous grafts for stenosis.	Renal & GU	Process	ESRD/Dialysis	Patients whose AV graft was routinely monitored for the presence of stenosis using one of the following methods and with the stated frequency: Color-flow Doppler at least once every three months; static venous pressure at least once every two weeks; dynamic venous pressure every hemodialysis session; dilution technique at least once every three months	All adult (> 18 years old) patients who were on hemodialysis continuously and who were dialyzed through an AV graft during their last hemodialysis session during the study period	Medical Records and Administrative Data
CMS	HF-1: Discharge instructions--hospital.	Cardiovascular	Process	Hospital IP	Heart failure patients with documentation that they or their caregivers were given written discharge instructions or other educational material addressing all of the following: activity level, diet, discharge medications, follow-up appointment, weight monitoring, what to do if symptoms worsen	Heart failure patients discharged home	Medical Records
CMS	HF-2: Evaluation of left ventricular systolic (LVS) function--hospital.	Cardiovascular	Process	Hospital IP	Heart failure patients with documentation in the hospital record that LVS function was evaluated before arrival, during hospitalization, or is planned for after discharge	Heart failure patients	Medical Records
CMS	HF-3: angiotensin converting enzyme inhibitor (ACEI) or angiotensin receptor blocker (ARB) for left ventricular systolic dysfunction (LVSD)--hospital.	Cardiovascular	Process	Hospital IP	Heart failure patients who are prescribed an ACEI or ARB at hospital discharge	Heart failure patients with LVSD and without both ACEI and ARB contraindications	Medical Records
CMS	Improvement in ambulation/locomotion--home health.	Chronic & Elder Care	Outcome	Home Health	Patients who improve walking or mobility	All patients for whom the value of the OASIS item M0700 Ambulation/Locomotion at start or resumption of care is greater than zero (i.e., it is possible for improvement to occur) are eligible for calculation of this outcome.	OASIS Data
CMS	Improvement in bathing--home health.	Chronic & Elder Care	Outcome	Home Health	Patients who improve or maintain the ability to bathe	All patients for whom the value of the OASIS item M0670 Bathing at start or resumption of care is greater than zero (i.e., it is possible for improvement to occur) are eligible for calculation of this outcome.	OASIS Data

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## HHS Measure Inventory

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Division	Measure Name	Condition	Domain	Care Setting	Numerator	Denominator	Data Source
CMS	Improvement in dyspnea--home health.	Respiratory	Outcome	Home Health	Patients who become less short of breath or dyspneic	All patients for whom the value of the OASIS item M0490 Short of Breath at start or resumption of care is greater than zero (i.e., it is possible for improvement to occur) are eligible for calculation of this outcome.	OASIS Data
CMS	Improvement in management of oral medications--home health.	Patient Safety	Outcome	Home Health	Patients who show improvement in the ability to take their medicines correctly	All patients for whom the value of the OASIS item M0780 Management of Oral Medications at start or resumption of care is greater than zero (i.e., it is possible for improvement to occur) are eligible for calculation of this outcome.	OASIS Data
CMS	Improvement in pain interfering with activity--home health.	Pain	Outcome	Home Health	Patients who have less pain when moving around	All patients for whom the value of the OASIS item M0420 Frequency of Pain at start or resumption of care is greater than zero (i.e., it is possible for improvement to occur) are eligible for calculation of this outcome.	OASIS Data
CMS	Improvement in status of surgical wounds--home health.	Surgery	Outcome	Home Health	Patients who demonstrate an improvement in the condition of surgical wounds	All patients for whom the value of the OASIS item M0482 Surgical Wound at start or resumption of care is greater than zero (i.e., it is possible for improvement to occur) AND the value of OASIS item M0488 Status of Most Problematic (Observable) Surgical Wound is not equal to NA - No Observable Surgical Wound are eligible for calculation of this outcome.	OASIS Data
CMS	Improvement in transferring--home health.	Chronic & Elder Care	Outcome	Home Health	Patients who are better able to get in and out of bed	All patients for whom the value of the OASIS item M0690 Transferring at start or resumption of care is greater than zero (i.e., it is possible for improvement to occur) are eligible for calculation of this outcome.	OASIS Data
CMS	Improvement in urinary incontinence--home health.	Renal & GU	Outcome	Home Health	Patients who were previously urine incontinent and are now continent	All patients for whom the value of the OASIS items M0520 Urinary Incontinence or Urinary Catheter Presence or M0530 When does Urinary Incontinence Occur at start or resumption of care is greater than zero (i.e., it is possible for improvement to occur) are eligible for calculation of this outcome.	OASIS Data
CMS	Mortality-AMI: Acute myocardial infarction 30-day mortality rate--hospital.	Cardiovascular	Outcome	Hospital IP	Patients in denominator with 30-day mortality (defined as death from any cause 30 days after the index admission date) for patients discharged from the hospital with a principal diagnosis of AMI	Patients with AMI age 65 years and older	Claims/Encounter Data
CMS	Mortality-HF: Heart failure 30-day mortality rate--hospital.	Cardiovascular	Outcome	Hospital IP	Patients in denominator with 30-day mortality (defined as death from any cause 30 days after the index admission date) for patients discharged from the hospital with a principal diagnosis of HF	Patients with HF age 65 years and older	Claims/Encounter Data
CMS	Mortality-PN: Pneumonia 30-day mortality rate--hospital.	Infectious Diseases	Outcome	Hospital IP	Patients in denominator with 30-day mortality (defined as death from any cause 30 days after the index admission date) for patients discharged from the hospital with a principal diagnosis of PN	Patients with a principal diagnosis of pneumonia age 65 years and older	Claims/Encounter Data
CMS	HF-4: Adult smoking cessation advice/counseling--hospital.	Cardiovascular	Process	Hospital IP	Heart failure patients (cigarette smokers) who receive smoking cessation advice or counseling during the hospital stay	Heart failure patients with a history of smoking cigarettes anytime during the year prior to hospital arrival	Medical Records
CMS	NH-FLU01: Chronic care influenza vaccination quality measure (QM)--nursing home.	Immunizations	Process	Long-term Care	Residents in the influenza vaccination sample who received the influenza vaccine during the most recently completed influenza season (October 1 through March 31)	Residents in the influenza vaccination sample with a valid MDS target record (assessment or discharge) in the Influenza Vaccination Reporting Period (October 1 through June 30).	MDS Data
CMS	NH-FLU01: Post-acute care influenza vaccination quality measure (QM)--nursing home.	Immunizations	Process	Long-term Care	Residents in the influenza vaccination sample who received the influenza vaccine during the most recently completed influenza season (October 1 through March 31)	Residents in the influenza vaccination sample with a valid MDS target record (assessment or discharge) in the Influenza Vaccination Reporting Period (October 1 through June 30).	MDS Data
CMS	NH-PNEUMOAX01: Chronic care pneumococcal vaccination quality measure (QM)--nursing home.	Immunizations	Process	Long-term Care	Residents in the pneumococcal vaccination sample who have an up-to-date pneumococcal vaccination (W3a = 1) within the 6-month target period	Residents in the pneumococcal vaccination sample with a valid MDS target record (assessment or discharge) within the 6-month target period.	MDS Data
CMS	NH-1: Percent of residents whose need for help with daily activities has increased--nursing home.	Chronic & Elder Care	Outcome	Long-term Care	Residents with worsening (increasing MDS item score) in late-loss ADL (bed mobility, transfer, eating, or toileting) self performance at target assessment [t] relative to prior assessment [t-1].	All residents with a valid target and a valid prior assessment after exclusions are applied	MDS Data
CMS	NH-10: Percent of low-risk residents who lose control of their bowels or bladder--nursing home.	Renal & GU	Outcome	Long-term Care	Residents who were frequently incontinent or fully incontinent on the target assessment	All residents with a valid target assessment after exclusions are applied and not qualifying as high risk	MDS Data
CMS	NH-11: Percent of residents whose ability to move about in and around their room got worse--nursing home.	Chronic & Elder Care	Outcome	Long-term Care	Residents whose value for locomotion self-performance is greater at target relative to prior assessment	All residents with a valid target assessment and a valid prior assessment after exclusions are applied	MDS Data
CMS	NH-12: Percent of residents who lose too much weight--nursing home.	Chronic & Elder Care	Outcome	Long-term Care	Residents who have experienced weight loss on the target assessment (K3a = 1) of 5 percent or more in the last 30 days or 10 percent or more in the last 6 months.	All residents with a valid target assessment after exclusions are applied	MDS Data
CMS	NH-13: Percent of short stay residents with delirium--nursing home.	Mental Health	Outcome	Long-term Care	Short stay residents at SNF PPS 14-day assessment with at least one symptom of delirium that represents a departure from usual functioning (at least one B5a through B5f = 2)	All residents with a valid SNF PPS 14-day assessment (AA8b = 7) after exclusions are applied	MDS Data
CMS	NH-14: Percent of short stay residents who had moderate to severe pain--nursing home.	Pain	Outcome	Long-term Care	Short stay residents at SNF PPS 14-day assessment with pain occurring daily, reaching a moderate level at least once during the 7-day assessment period (J2a = 2 and J2b = 2) OR horrible/excruciating pain at any frequency (J2b = 3)	All residents with a valid SNF PPS 14-day assessment (AA8b = 7) after exclusions are applied	MDS Data

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CMS	NH-15: Percent of short stay residents with pressure sores--nursing home.	Chronic & Elder Care	Outcome	Long-term Care	Short stay residents at SNF PPS 14-day assessment who satisfy either of the following conditions: On the SNF PPS 5-day assessment, resident had no pressure sores (M2a[t-1] = 0) AND, on the SNF PPS 14-day assessment, resident has at least a Stage 1 pressure sore (M2a[t] = 1, 2, 3, or 4). On the SNF PPS 5-day assessment, resident had a pressure sore (M2a[t-1] = 1, 2, 3, or 4) AND on the SNF PPS 14-day assessment, pressure sore worsened or failed to improve (M2a[t] >= M2a[t-1])	All residents with a valid SNF PPS 14-day Assessment (AA8b = 7) AND a valid preceding SNF PPS 5-day Assessment (AA8b = 1) after exclusions are applied	MDS Data
CMS	NH-2: Percent of residents who have moderate to severe pain--nursing home.	Pain	Outcome	Long-term Care	Residents with pain occurring daily, reaching a moderate level at least once during the assessment period (J2a = 2 and J2b = 2) OR horrible/excruciating pain at any frequency (J2b = 3) on the target assessment	All residents with a valid target assessment after exclusions are applied	MDS Data
CMS	NH-PNEUMOVAX01: Post-acute care pneumococcal vaccination quality measure (QM)--nursing home.	Immunizations	Process	Long-term Care	Residents in the pneumococcal vaccination sample who have an up-to-date pneumococcal vaccination (W3a = 1) within the 6-month target period	Residents in the pneumococcal vaccination sample with a valid MDS target record (assessment or discharge) within the 6-month target period	MDS Data
CMS	NH-4: Percent of patients with a urinary tract infection--nursing home.	Renal & GU	Outcome	Long-term Care	Residents with urinary tract infection on the target assessment	All residents with a valid target assessment after exclusions are applied	MDS Data
CMS	NH-5: Percent of high-risk residents who have pressure sores--nursing home.	Chronic & Elder Care	Outcome	Long-term Care	Residents with pressure sores (Stage 1-4) on the target assessment	All residents with a valid target assessment after exclusions are applied and with any one of the following high-risk inclusion criteria: 1.) Impaired in bed mobility or transfer on the target assessment as indicated by G1a(A) = 3, 4, or 8 OR G1b(A) = 3, 4, or 8. 2.) Comatose on the target assessment as indicated by B1 = 1. 3.) Suffer malnutrition on the target assessment as indicated by I3a through I3e = ICD-9-Codes 260, 261, 262, 263.0, 263.1, 263.2, 263.8, or 263.9.	Claims/Encounter Data; MDS Data
CMS	NH-6: Percent of low-risk residents who have pressure sores--nursing home.	Chronic & Elder Care	Outcome	Long-term Care	Residents with pressure sores (Stage 1-4) on the target assessment	All residents with a valid target assessment after exclusions are applied and who do not qualify as high risk	Claims/Encounter Data; MDS Data
CMS	NH-7: Percent of residents who have become more depressed or anxious--nursing home.	Mental Health	Outcome	Long-term Care	Residents whose Mood Scale scores are greater on target assessment relative to prior assessment (Mood Scale score [t] > Mood Scale score [t-1])	All residents with a valid target assessment and a valid prior assessment, after exclusions are applied	MDS Data
CMS	NH-8: Percent of residents who spent most of their time in bed or in a chair--nursing home.	Chronic & Elder Care	Outcome	Long-term Care	Residents who are bedfast (G6a is checked) on the target assessment	All residents with a valid target assessment after exclusions are applied	MDS Data
CMS	NH-9: Percent of residents who have/had a catheter inserted and left in their bladder--nursing home.	Renal & GU	Outcome	Long-term Care	Residents with indwelling catheters on the target assessment (H3d is checked)	All residents with a valid target assessment after exclusions are applied	MDS Data
CMS	NH-3: Percent of residents who were physically restrained--nursing home.	Chronic & Elder Care	Process	Long-term Care	Residents who were physically restrained daily (P4c or P4d or P4e = 2) on the target assessment	All residents with a valid target assessment after exclusions are applied	MDS Data
CMS	PN-1: Oxygenation assessment--hospital.	Infectious Diseases	Process	Hospital IP	Number of pneumonia patients whose arterial oxygenation was assessed by arterial blood gas (ABG) or pulse oximetry within 24 hours prior to or after hospital arrival	Pneumonia patients 18 years of age and older	Medical Records
CMS	PN-2: Pneumococcal vaccination--hospital.	Infectious Diseases	Process	Hospital IP	Patients with pneumonia, age 65 and older, who were screened for pneumococcal vaccine status and were vaccinated prior to discharge, if indicated	Pneumonia patients 65 years of age and older	Medical Records
CMS	PN-3a: Blood cultures performed within 24 hours prior to or 24 hours after hospital arrival for patients who were transferred or admitted to the intensive care unit (ICU) within 24 hours of hospital arrival--hospital.	Infectious Diseases	Process	Hospital IP	Number of pneumonia patients transferred or admitted to the ICU within 24 hours of hospital arrival who had blood cultures performed with 24 hours prior to or 24 hours after arrival at the hospital	Pneumonia patients 18 years of age and older	Medical Records
CMS	PN-3b: Blood cultures performed in the emergency department prior to initial antibiotic received in hospital--hospital.	Infectious Diseases	Process	Hospital IP	Number of pneumonia patients whose initial emergency room blood culture was performed prior to the administration of the first hospital dose of antibiotics	Pneumonia patients 18 years of age and older who have an initial blood culture collected as an emergency department patient	Medical Records
CMS	PN-4: Adult smoking cessation advice/counseling--hospital.	Infectious Diseases	Process	Hospital IP	Pneumonia patients (cigarette smokers) who receive smoking cessation advice or counseling during the hospital stay	Pneumonia patients 18 years of age and older with a history of smoking cigarettes anytime during the year prior to hospital arrival	Medical Records
CMS	PN-5c: Initial antibiotic received within 6 hours of hospital arrival--hospital.	Infectious Diseases	Process	Hospital IP	Number of pneumonia patients who received their first antibiotic dose within 6 hours from hospital arrival	Pneumonia patients 18 years of age and older	Medical Records
CMS	PN-6: Initial antibiotic selection for community-acquired pneumonia (CAP) in immunocompetent patients--hospital.	Infectious Diseases	Process	Hospital IP	Pneumonia patients who received an initial antibiotic regimen (as specified in Pneumonia Antibiotic Consensus Recommendations) consistent with current guidelines during the first 24 hours of their hospitalization	Immunocompetent community-acquired pneumonia (CAP) patients 18 years of age and older	Medical Records
CMS	PN-7: Influenza vaccination--hospital.	Infectious Diseases	Process	Hospital IP	Patients discharged during October, November, December, January, February or March with pneumonia, age 50 and older, who were screened for influenza vaccine status and were vaccinated prior to discharge, if indicated	Pneumonia patients 50 years of age and older	Medical Records
CMS	SCIP-Inf-1a: Prophylactic antibiotic received within one hour prior to surgical incision - overall rate--hospital.	Surgery	Process	Hospital IP	Number of surgical patients who received prophylactic antibiotics within one hour prior to surgical incision (two hours if receiving vancomycin, in Appendix C, Table 3.8, or a fluoroquinolone, in Appendix C, Table 3.10)	All selected surgical patients with no evidence of prior infection	Medical Records
CMS	SCIP-Inf-2a: Prophylactic antibiotic selection for surgical patients - overall rate--hospital.	Surgery	Process	Hospital IP	Number of surgical patients who received prophylactic antibiotics recommended for their specific surgical procedure	All selected surgical patients with no evidence of prior infection	Medical Records
CMS	SCIP-Inf-4: Cardiac surgery patients with controlled 6 A.M. postoperative blood glucose.	Cardiovascular	Outcome	Hospital IP	Surgery patients with controlled 6 A.M. blood glucose (< 200 mg/dL) on POD 1 and POD 2	Cardiac surgery patients with no evidence of prior infection	Medical Records
CMS	SCIP-Inf-3a: Prophylactic antibiotics discontinued within 24 hours after surgery and time - overall rate--hospital.	Surgery	Process	Hospital IP	Number of surgical patients whose prophylactic antibiotics were discontinued within 24 hours after surgery end time (48 hours for CABG or Other Cardiac Surgery)	All selected surgical patients with no evidence of prior infection	Medical Records

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## HHS Measure Inventory

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Division	Measure Name	Condition	Domain	Care Setting	Numerator	Denominator	Data Source
CMS	SCIP-Inf-6: Surgery patients with appropriate hair removal-hospital.	Surgery	Process	Hospital IP	Surgery patients with surgical site hair removal with clippers or depilatory or with no surgical site hair removal	All selected surgery patients	Medical Records
CMS	SCIP-VTE-1: Surgery patients with recommended venous thromboembolism prophylaxis ordered.	Cardiovascular	Process	Hospital IP	Surgery patients with recommended venous thromboembolism (VTE) prophylaxis ordered anytime from hospital arrival to 48 hours after surgery end time	All selected surgery patients	Medical Records
CMS	SCIP-VTE-2: Surgery patients who received appropriate venous thromboembolism prophylaxis within 24 hours prior to surgery to 24 hours after surgery.	Cardiovascular	Process	Hospital IP	Surgery patients who received appropriate venous thromboembolism (VTE) prophylaxis within 24 hours prior to surgical incision time to 24 hours after surgery end time	All selected surgery patients	Medical Records
CMS	Emergent care for wound infections, deteriorating wound status.	Chronic & Elder Care	Outcome	Home Health	Patients for whom this event happens (emergent care reason is wound infection or deteriorating wound status) on transfer to inpatient facility or discharge from agency	All emergent care reasons (except "unknown" on M0840) and patients for whom no emergent utilization occurred	OASIS Data
CMS	Breast cancer screening.	Cancer	Process	Ambulatory			HEDIS
CMS	Colorectal cancer screening.	Cancer	Process	Ambulatory			HEDIS
CMS	Persistence of beta-blocker treatment after a heart attack.	Cardiovascular	Process	Ambulatory			HEDIS
CMS	Cholesterol management for patients with cardiovascular conditions.	Cardiovascular	Process	Ambulatory			HEDIS
CMS	Use of spirometry testing in assessment of chronic obstructive pulmonary disease (COPD).	Respiratory	Process	Ambulatory			HEDIS
CMS	Antidepressant medication management (6 months).	Mental Health	Process	Ambulatory			HEDIS
CMS	Diabetes: Hemoglobin A1c (HbA1c) poor control.	Diabetes	Outcome	Ambulatory			HEDIS
CMS	Antidepressant medication management (doctor f/up).	Mental Health	Process	Ambulatory			HEDIS
CMS	Diabetes: Low-density lipoprotein (LDL) control.	Diabetes	Outcome	Ambulatory			HEDIS
CMS	Diabetes: Retinal eye exam.	Diabetes	Process	Ambulatory			HEDIS
CMS	Diabetes: Low-density lipoprotein (LDL) screening.	Diabetes	Process	Ambulatory			HEDIS
CMS	Diabetes: Medical attention for nephropathy.	Diabetes	Process	Ambulatory			HEDIS
CMS	Controlling high blood pressure.	Cardiovascular	Outcome	Ambulatory			HEDIS
CMS	Glaucoma screening in older adults.	HEENT	Process	Ambulatory			HEDIS
CMS	Annual monitoring for patients on persistent medications.	Patient Safety	Process	Ambulatory			HEDIS
CMS	Follow-up after hospitalization for mental illness.	Mental Health	Process	Ambulatory			HEDIS
CMS	Osteoporosis management in women who had fracture.	Bone & Joint	Process	Ambulatory			HEDIS
CMS	Disease modifying anti-rheumatic drug therapy in rheumatoid arthritis.	Bone & Joint	Process	Ambulatory			HEDIS
CMS	Flu shots for older adults.	Immunizations	Process	Ambulatory			HEDIS
CMS	Access to primary care doctor visits.	Health Care	Patient	Ambulatory			HEDIS
CMS	Call answer timeliness.	Health Care	Patient	Health System			HEDIS
CMS	Doctors who communicate well.	Health Care	Patient	Health System			M-CAHPS
CMS	Getting appointments and care quickly.	Health Care	Patient	Health System			M-CAHPS
CMS	Getting needed care without delays.	Health Care	Patient	Health System			M-CAHPS
CMS	Overall rating of health care quality.	Health Care	Patient	Health System			M-CAHPS
CMS	Overall rating of health plan.	Health Care	Patient	Health System			M-CAHPS
CMS	Plan makes timely decisions about appeals.	Health Care	Patient	Health System			IRE
CMS	Reviewing appeals decisions.	Health Care	Patient	Health System			IRE
CMS	Health plan customer service.	Health Care	Patient	Health System			M-CAHPS
CMS	Pneumonia vaccination status for older adults.	Immunizations	Process	Ambulatory			HEDIS
CMS	Availability of drug coverage and cost information.	Health Care	Process	Health System			Plan Reported
CMS	Calls disconnected when customer calls drug plan.	Health Care	Process	Health System			CMS
CMS	Complaints about joining and leaving the plan.	Health Care	Patient	Health System			CTM
CMS	Complaints about the drug plan.	Health Care	Patient	Health System			CTM
CMS	Complaints about the plan's benefits and access to prescription drugs.	Health Care	Patient Satisfaction	Health System			CTM
CMS	Complaints about plan's drug pricing & out-of-pocket costs.	Health Care	Patient Satisfaction	Health System			CTM
CMS	Percent of generic drugs dispensed to members	Health Care	Outcome	Ambulatory			Plan Reported
CMS	Getting prescriptions easily	Health Care	Patient	Health System			CAHPS
CMS	How helpful is your plan when you need information.	Health Care	Patient	Health System			CAHPS
CMS	Calls disconnected when pharmacist calls drug plan.	Health Care	Process	Health System			CMS
CMS	How often the plan's drug prices change.	Health Care	Process	Health System			Plan Reported
CMS	Pharmacists have up-to-date info on plan members who need extra help.	Health Care	Process	Ambulatory			OIS
CMS	Rating of drug plan.	Health Care	Patient	Health System			CAHPS
CMS	Pharmacists have up-to-date plan enrollment information.	Health Care	Process	Ambulatory			OIS
CMS	Reviewing appeals decisions.	Health Care	Process	Health System			IRE
CMS	Time on hold when customer calls drug plan.	Health Care	Process	Health System			CMS
CMS	Relative resource use - people w/ CV conditions.	Cardiovascular	Efficiency	Health System			HEDIS
CMS	Time on hold when pharmacist calls drug plan.	Health Care	Process	Health System			CMS
CMS	Relative resource use for people with chronic obstructive pulmonary disease (COPD).	Respiratory	Process	Health System			HEDIS
CMS	Improving physical health.	Population	Outcome	Ambulatory			HOS

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Division	Measure Name	Condition	Domain	Care Setting	Numerator	Denominator	Data Source
CMS	Improving physical health.	Population	Outcome	Ambulatory			HOS
CMS	Pharmacotherapy of chronic obstructive pulmonary disease (COPD) exacerbation.	Respiratory	Process	Ambulatory			HEDIS
CMS	Improving mental health.	Mental Health	Outcome	Hospital OP			HOS
CMS	Reducing the risk of falling.	Patient Safety	Process	Home Health			HOS
CMS	Reducing urinary incontinence.	Renal & GU	Process	Ambulatory			HOS
CMS	Osteoporosis testing.	Bone & Joint	Process	Ambulatory			HOS
CMS	Improving physical activity.	Behavioral Health	Process	Ambulatory			HOS
CMS	Colorectal cancer screening.	Cancer	Process	Long-term Care			HEDIS
CMS	Glaucoma testing.	HEENT	Process	Long-term Care			HEDIS
CMS	Testing to confirm chronic obstructive pulmonary disease (COPD).	Respiratory	Process	Long-term Care			HEDIS
CMS	Drugs to control chronic obstructive pulmonary disease (COPD).	Respiratory	Process	Long-term Care			HEDIS
CMS	Controlling blood pressure.	Cardiovascular	Outcome	Long-term Care			HEDIS
CMS	Osteoporosis management.	Bone & Joint	Process	Long-term Care			HEDIS
CMS	Medication management for depression.	Mental Health	Process	Long-term Care			HEDIS
CMS	Follow-up visit after hospital stay for mental illness (within 30 days of discharge).	Mental Health	Process	Long-term Care			HEDIS
CMS	Appropriate monitoring of patients taking long-term medications.	Patient Safety	Process	Long-term Care			HEDIS
CMS	Avoiding high-risk drugs for the elderly.	Patient Safety	Process	Long-term Care			HEDIS
CMS	Avoiding potentially harmful prescription drugs.	Patient Safety	Process	Long-term Care			HEDIS
CMS	Continuous beta-blocker treatment.	Cardiovascular	Process	Long-term Care			HEDIS
CMS	Case management.	Health Care	Structure/Acce	Long-term Care			HEDIS
CMS	Board certified physicians.	Health Care	Structure/Acce	Long-term Care			HEDIS
CMS	High-risk medication usage.	Patient Safety	Structure/Acce	Ambulatory			PDE
CMS	Out-of-pocket costs.	Health Care	Structure/Acce	Health System			MCBS/PBP Benefit Design
CMS	Projected risk of entering the coverage gap.	Health Care	Structure/Acce	Health System			MCBS/PBP Benefit Design
CMS	HCAHPS - Communication with nurses (composite).	Health Care Delivery	Patient Satisfaction	Hospital IP	The number of respondents who indicated "Always," "Usually," "Sometimes," or "Never" on the three questions regarding their experiences with communicating with nurses  To produce composite scores, the proportion of cases in each response category for each question is calculated. Once the proportions are calculated for each response category, the average proportion of those responding to each category is then calculated across all the questions that make up a specific composite.	Hospital inpatients with an admission during the reporting period who answered the "Communication with Nurses" questions on the CAHPS Hospital Survey (Q1, Q2, Q3) Patients reported how often their nurses communicated well with them during their hospital stay. "Communicated well" means nurses explained things clearly, listened carefully to the patient, and treated the patient with courtesy and respect. Only the questions answered by the patient are included in the composite calculation.	HCAHPS
CMS	HCAHPS - Communication with doctors (composite).	Health Care Delivery	Patient Satisfaction	Hospital IP	The number of respondents who indicated "Always," "Usually," "Sometimes," or "Never" on the three questions regarding their experiences with communicating with doctors  To produce composite scores, the proportion of cases in each response category for each question is calculated. Once the proportions are calculated for each response category, the average proportion of those responding to each category is then calculated across all the questions that make up a specific composite.	Hospital inpatients with an admission during the reporting period who answered the "Communication with Doctors" questions on the CAHPS Hospital Survey (Q5, Q6, Q7) Patients reported how often their doctors communicated well with them during their hospital stay. "Communicated well" means doctors explained things clearly, listened carefully to the patient, and treated the patient with courtesy and respect. Only the questions answered by the patient are included in the composite calculation.	HCAHPS
CMS	HCAHPS - Responsiveness of hospital staff (composite).	Health Care Delivery	Patient Satisfaction	Hospital IP	The number of respondents from the denominator who indicated "Always," "Usually," "Sometimes," "Never," or "I never pressed the call button" on the two questions regarding their experiences with the responsiveness of hospital staff  To produce composite scores, the proportion of cases in each response category for each question is calculated. Once the proportions are calculated for each response category, the average proportion of those responding to each category is then calculated across all the questions that make up a specific composite.	Hospital inpatients with an admission during the reporting period who answered the "Responsiveness of Hospital Staff" questions on the CAHPS Hospital Survey (Q4, Q11) Patients reported how often they were helped quickly when they used the call button or needed help in getting to the bathroom or using a bedpan. Only the questions answered by the patient are included in the composite calculation.	HCAHPS
CMS	HCAHPS - Pain control (composite).	Pain	Patient Satisfaction	Hospital IP	The number of respondents from the denominator who indicated "Always," "Usually," "Sometimes," or "Never" on the two questions regarding their experiences with control of their pain  To produce composite scores, the proportion of cases in each response category for each question is calculated. Once the proportions are calculated for each response category, the average proportion of those responding to each category is then calculated across all the questions that make up a specific composite.	Hospital inpatients with an admission during the reporting period who answered the "Pain Management" questions on the CAHPS Hospital Survey (Q13, Q14) If patients needed medicine for pain during their hospital stay, the survey asked how often their pain was well controlled. "Well controlled" means their pain was well controlled and that the hospital staff did everything they could to help patients with their pain. Only the questions answered by the patient are included in the composite calculation.	HCAHPS

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Division	Measure Name	Condition	Domain	Care Setting	Numerator	Denominator	Data Source
CMS	HCAHPS - Communication about medicines (composite).	Health Care Delivery	Patient Satisfaction	Hospital IP	The number of respondents "Always," "Usually," "Sometimes," or "Never" on the two questions regarding their experiences with new medications  To produce composite scores, the proportion of cases in each response category for each question is calculated. Once the proportions are calculated for each response category, the average proportion of those responding to each category is then calculated across all the questions that make up a specific composite.	Hospital inpatients with an admission during the reporting period who answered the "Communication about Medications" questions on the CAHPS Hospital Survey (Q16, Q17) If patients were given medicine that they had not taken before, the survey asked how often staff explained about the medicine. "Explained" means that hospital staff told what the medicine was for and what side effects it might have before they gave it to the patient. Only the questions answered by the patient are included in the composite calculation.	HCAHPS
CMS	HCAHPS - Discharge information (composite).	Health Care Delivery	Patient Satisfaction	Hospital IP	The number of respondents who indicated "Yes" or "No" to the questions regarding whether they were provided specific discharge information  To produce composite scores, the proportion of cases in each response category for each question is calculated. Once the proportions are calculated for each response category, the average proportion of those responding to each category is then calculated across all the questions that make up a specific composite.	Hospital inpatients with an admission during the reporting period who answered the "Discharge Information" questions on the CAHPS Hospital Survey (Q19, Q20) The survey asked patients about information they were given when they were ready to leave the hospital. Patients reported whether hospital staff had discussed the help they would need at home. Patients also reported whether they were given written information about symptoms or health problems to watch for during their recovery. Only the questions answered by the patient are included in the composite calculation.	HCAHPS
CMS	HCAHPS - Cleanliness of hospital (individual item).	Health Care Delivery	Patient Satisfaction	Hospital IP	The number of respondents who indicated "Always," "Usually," "Sometimes," or "Never" on the question regarding their experiences with cleanliness of the hospital environment	Hospital inpatients with an admission during the reporting period who answered the "Cleanliness of Hospital Environment" question on the CAHPS Hospital Survey (Q8) Patients reported how often their hospital room and bathroom were kept clean.	HCAHPS
CMS	HCAHPS - Quietness of hospital (individual item).	Health Care Delivery	Patient Satisfaction	Hospital IP	The number of respondents who indicated "Always," "Usually," "Sometimes," or "Never" on the question regarding their experiences with quietness of the hospital environment	Hospital inpatients with an admission during the reporting period who answered the "Quietness of Hospital Environment" question on the CAHPS Hospital Survey (Q9) Patients reported how often the area around their room was quiet at night.	HCAHPS
CMS	HCAHPS - Overall rating of hospital care (global item).	Health Care Delivery	Patient Satisfaction	Hospital IP	The number of respondents who rated their hospital: 9 or 10, 7 or 8, and rated their hospital a 6 or lower	Hospital inpatients with an admission during the reporting period who answered the "Rating of Hospital" question on the CAHPS Hospital Survey (Q21) After answering all other questions on the survey, patients answered a separate question that asked for an overall rating of the hospital. Ratings were on a scale from 0 to 10, where "0" means "worst hospital possible" and "10" means "best hospital possible."	HCAHPS

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Division	Measure Name	Condition	Domain	Care Setting	Numerator	Denominator	Data Source
CMS	HCAHPS - Overall recommendation (global item).	Health Care Delivery	Patient Satisfaction	Hospital IP	The number of respondents who indicated "Definitely No," "Probably No," "Probably Yes," or "Definitely Yes" regarding whether they were willing to recommend this hospital to their family and friends	Hospital inpatients with an admission during the reporting period who answered the "Willingness to Recommend" question on the CAHPS Hospital Survey (Q22) The survey asked patients whether they would recommend the hospital to their friends and family.	HCAHPS
HRSA	The degree to which grantees have assisted States in facilitating families as partners in decision making and increasing satisfaction.	Health Care Delivery	Patient Satisfaction	Health System	The total number of families in a state who have been provided information, education and/or training from Family to Family Health Information Centers	The estimated number of families having CSHCN	Progress Reports from Family to Family Health Care Information and Education Centers
HRSA	The degree to which Maternal and Child Health Bureau (MCHB) supported programs ensure family participation in program and policy activities.	Health Care Delivery	Patient Satisfaction	Health System			
HRSA	The degree to which grantees have assisted States in improving access to adequate health insurance for children with special health care needs in the state and nationally.	Health Care Delivery	Structure/Access	Health System			Data Collection Form. Form represents a menu of strategies by which grantees may assist States in improving access to adequate health insurance for children with special healthcare needs.
HRSA	The degree to which grantees have assisted States in achieving access to a medical home for all children with special health care needs in the State and nationally.	Health Care Delivery	Structure/Access	Health System			Data Collection Form. Form represents a menu of strategies by which grantees may assist States in improving access to adequate health insurance for children with special healthcare needs.
HRSA	The percent of children with special health care needs age 0 through 18 who have a medical home.	Health Care Delivery	Structure/Access	Health System	The number of children with special health care needs age 0 through 18 who have a medical home during the reporting period	The number of children with special health care needs in the State age 0 through 18 during the reporting period	The National CSHCN Survey
HRSA	The degree to which Maternal and Child Health Bureau (MCHB) supported programs have incorporated cultural competence elements into their policies, guidelines, contracts and trainings.	Health Care Delivery	Structure/Access	Health System			Data Collection Form. There is no existing national data source to measure the extent to which MCHB supported programs have incorporated cultural competence elements into their policies, guidelines, contracts and trainings.
HRSA	The percent of all children from birth to age 18 participating in the Maternal and Child Health Bureau (MCHB) supported programs who have a medical home.	Health Care Delivery	Structure/Access	Ambulatory	The number of children participating in MCHB funded projects age 0 to 18 with a medical home during the reporting period	The number of children participating in MCHB funded projects age 0 to 18 during the reporting period	MCHB Child Health Survey
HRSA	The percent of women participating in Maternal and Child Health Bureau (MCHB) supported projects who have an ongoing source of primary and preventative care services for women.	Health Care Delivery	Outcome	Ambulatory	The number of women participating in MCHB supported projects who have an ongoing source of primary and preventative care services during the reporting period	The number of women participating in MCHB supported projects during the reporting year	Provider and MCHB Program Patient Records
HRSA	The degree to which grantees electronically link vital statistics data sets, Medicaid and other health information systems data sets.	Health Care Delivery	Structure/Access	Health System			Data collection form
HRSA	The degree to which grantees have assisted states in developing integrated systems of care for children with special health care needs.	Health Care Delivery	Structure/Access	Health System			Data Collection Form and The National CSHCN Survey
HRSA	The degree to which States and communities have implemented comprehensive systems for women's health services.	Health Care Delivery	Structure/Access	Health System			Data Collection Form; MCHB Program Records
HRSA	The degree to which grantees have assisted States in enhancing the early and continuous screening, followed by early intervention for all children with special health care needs.	Health Care Delivery	Structure/Access	Health System			Data Collection Form
HRSA	The number of women participating in Maternal and Child Health Bureau (MCHB) supported programs requiring a referral, who receive a completed referral.	Health Care Delivery	Process	Health System	Unduplicated number of MCHB funded program participants who have completed service referrals	Unduplicated number of MCHB funded program participants who have a need for which a referral was made for health services	Provider and MCHB Program patient records
HRSA	The degree to which Maternal and Child Health Bureau (MCHB) supported programs facilitate health providers' screening of women participants for risk factors.	Population	Process	Health System			Provider and MCHB Program patient records
HRSA	The degree to which grantees have assisted States in ensuring that youth with special health care needs receive the services necessary to transition to adult health care, work, and independence.	Health Care Delivery	Process	Health System			Data Collection Form. Data collection form represents 3 elements that demonstrate comprehensive transition services for youth with special health care needs.
HRSA	The percent of pregnant participants of Maternal and Child Health Bureau (MCHB) supported programs who have a prenatal care visit in the first trimester of pregnancy.	Population	Process	Ambulatory	Number of program participants with reported first prenatal visit during the first trimester	Total number of program participants who are pregnant at any time during the reporting year	Provider and MCHB Program Patient Records. Vital records can be used if Birth Certificates can be matched to program participants.

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Division	Measure Name	Condition	Domain	Care Setting	Numerator	Denominator	Data Source
HRSA	The percent of screen positive newborns who received timely follow up to definitive diagnosis and clinical management for condition(s) mandated by their State-sponsored newborn screening programs.	Population	Process	Health System	The number of newborns screened and confirmed with condition(s) mandated by the State sponsored newborn screening program that received timely follow-up to definitive diagnosis and clinical management.	The number of newborns screened and confirmed with condition(s) mandated by the State sponsored newborn screening program	Data supplied annually by each State to the National Newborn Screening and Genetic Resource Center
HRSA	The percent of children with special health care needs age 0 to 18 years whose families partner in decision making at all levels and are satisfied with the services they receive.	Health Care Delivery	Patient Satisfaction	Health System	The number of families with CSHCN who partner in decision making and are satisfied with the services they receive	The number of children with special health care needs to the State age 0 to 18 during the reporting period	The National CSHCN Survey
HRSA	The percent of children with special health care needs age 0 to 18 who receive coordinated, ongoing, comprehensive care within a medical home.	Health Care Delivery	Process	Health System	The percent of children with special health care needs in the State age 0 to 18 who have a medical home during the reporting period	The number of children with special health care needs in the State age 0 to 18 during the reporting period	The National CSHCN Survey
HRSA	The percent of children with special health care needs age 0 to 18 years whose families have adequate private and/or public insurance to pay for the services they need.	Health Care Delivery	Structure/Access	Health System	Number of children with special health care needs in the State age 0 to 18 whose families perceive that they have adequate insurance coverage	Number of children with special health care needs in the State age 0 to 18 during the reporting year	The National CSHCN Survey
HRSA	The percentage of youth with special health care needs who received the services necessary to make transitions to all aspects of adult life, including adult health care, work and independence.	Health Care Delivery	Process	Health System	Number of youth with special health care needs in the State 18 years of age and younger whose families perceive that they have received the services necessary to transition to adult health care, work and independence.	Number of youth with special health care needs in the State 18 years of age and younger during the reporting period	The National CSHCN Survey
HRSA	Percent of children with special health care needs age 0 to 18 whose families report community-based service systems are organized so they can use them easily.	Health Care Delivery	Patient Satisfaction	Health System	The number of children with special health care needs in the State age 0 to 18 whose families report that community-based service systems are organized so they can use them easily	The number of children with special health care needs in the State age 0 to 18 whose families report that community based service systems are organized so they can use them easily	The National CSHCN Survey
HRSA	Percent of 19 to 35 month olds who have received full schedule of age appropriate immunizations against measles, mumps, rubella, polio, diphtheria, tetanus, pertussis, haemophilus influenza and hepatitis B.	Immunizations	Process	Health System	Number of resident children who have received the complete immunization schedule for DTP/DTAP, OPV, measles, mumps, rubella (MMR), H. influenza, and hepatitis B before their second birthday. Complete immunization status is generally considered to be: 3 Hepatitis B, 4 DtaP, 3 Polio, 1 MMR, 3 Hib	Number of resident children aged 2 years	State Immunization Registry, CDC National Immunization Survey, State Vital Records and Bureau of Census Population Estimates
HRSA	The rate of birth (per 1,000) for teenagers aged 15 through 17 years.	Population	Outcome	Health System	Number of live births to teenagers aged 15 to 17 years in the calendar year	Number of females aged 15 through 17 years in the calendar year	Vital records are the source of data on mother's age and births. Population records are available from the Census.
HRSA	Percent of third grade children who have received protective sealants on at least one permanent molar tooth.	HEENT	Process	Health System	Number of third grade children who have a protective sealant on at least one permanent molar tooth	Number of third grade children in State during the year	Primary Data Collection, such as examination or screening of a representative sample of school children
HRSA	The rate of deaths to children aged 14 years and younger caused by motor vehicle crashes per 100,000 children.	Patient Safety	Outcome	Health System	Number of deaths to children aged 14 years and younger caused by motor vehicle crashes. This includes all occupant, pedestrian, motorcycle, bicycle, etc. deaths caused by motor vehicles.	All children in the State aged 14 years and younger	Fatal Accident Reporting System (FARS), U.S. Department of Transportation and Vital Statistics Systems are sources of the data.
HRSA	The percent of mothers who breastfeed their infants at 6 months of age.	Population	Process	Health System	Number of mothers who indicate that breast milk is at least one of the types of food their infant is fed at 6 months of age	Number of mothers with infants at 6 months of age	CDC's National Immunization Survey (NIS), Ross Laboratories Mothers Survey, State WIC Data, CDC's Pediatric Nutrition Surveillance System (PedNSS), and HRSA's National Survey of Children's Health (NSCH)
HRSA	Percentage of newborns that have been screened for hearing before hospital discharge.	HEENT	Process	Health System	The number of infants in the State whose hearing has been screened before hospital discharge by tests of either otoacoustic emissions or auditory brainstem responses	Number of births in the State in the calendar year	State birth certificates, newborn hearing registries, tests of otoacoustic emissions and auditory brainstem responses. Potential data source – State based Early Hearing Detection and Intervention (EDHI) Program Network, CDC.
HRSA	Percent of children without health insurance.	Health Care Delivery	Structure/Access	Health System	Number of children under 18 in the State who are not covered by any private or public health insurance (including Medicaid or risk pools) at some time during the reporting year		There is no current uniform source of data at the State level, but data may be available by State estimate beginning in 1997 from the March CPS, U.S. Bureau of the Census. States need to choose among existing estimating techniques and use one consistently.
HRSA	Percentage of children, ages 2 to 5 years receiving Women, Infants, and Children Program (WIC) services with a body mass index (BMI) at or above the 85th percentile.	Obesity	Process	Health System	The number of children, ages 2 to 5 years, receiving WIC services with a BMI at or above the 85th percentile	Number of children, ages 2 to 5 years that receive WIC services during the reporting period	State WIC Data, CDC's Pediatric Nutrition Surveillance System (PedNSS), and HRSA's National Survey of Children's Health (NSCH)
HRSA	Percentage of women who smoke in the last three months of pregnancy.	Behavioral Health	Outcome	Health System	The number of women reporting smoking in the last three months of pregnancy during the calendar year	The number of women delivering babies during the calendar year	Birth Certificate. States are encouraged to use U.S. Standard Certificate of Live Birth (revised 11/2003); Pregnancy Risk Assessment Monitoring System (PRAMS).
HRSA	The rate (per 100,000) of suicide deaths among youths aged 15 through 19.	Mental Health	Outcome	Ambulatory	Number of deaths attributed to suicide among youths aged 15 through 19	Number of youths aged 15 through 19	State vital records are the source.

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Division	Measure Name	Condition	Domain	Care Setting	Numerator	Denominator	Data Source
HRSA	Percent of very low birth weight infants delivered at facilities for high-risk deliveries and neonates.	Population	Process	Ambulatory	Number of infants with a birth weight less than 1,500 grams born at sub-specialty facilities (Level III facility)	Total number of infants born with a birth weight of less than 1,500 grams	There is no National data source for this at present. Vital records and hospital discharge records would be sources.
HRSA	Percent of infants born to pregnant women receiving prenatal care beginning in the first trimester.	Population	Process	Health System	Number of live births with reported first prenatal visit during the first trimester (before 13 weeks gestation) in the calendar year	Number of live births in the State in the calendar year	Birth certificate data in the State vital records are available for over 99% of births.
HRSA	The infant mortality rate per 1,000 live births.	Population	Outcome	Health System	Number of deaths to infants from birth through 364 days of age	Number of live births	Vital records collected by the State
HRSA	The ratio of the black infant mortality rate to the white infant mortality rate.	Population	Outcome	Health System	The black infant mortality rate per 1,000 live births	The white infant mortality rate per 1,000 live births	Vital records collected by the State
HRSA	The neonatal mortality rate per 1,000 live births.	Population	Outcome	Health System	Number of deaths to infants under 28 days	Number of live births	Vital records collected by the State
HRSA	The post-neonatal mortality rate per 1,000 live births.	Population	Outcome	Health System	Number of deaths to infants 28 through 364 days of age	Number of live births	Vital records collected by the State
HRSA	The perinatal mortality rate per 1,000 live births plus fetal deaths.	Population	Outcome	Health System	Number of fetal deaths 28 weeks or more gestation plus early neonatal deaths occurring under 7 days	Live births + fetal deaths	Vital records collected by the State
HRSA	The child death rate per 100,000 children aged 1 through 14.	Population	Outcome	Health System	Number of deaths among children aged 1 through 14 years of age	Number of children aged 1 through 14	Child death certificates are collected by State vital records. Data on total number of children comes from the Census.
HRSA	Visits with a specialist in HIV/AIDS.	Infectious Diseases	Process	Ambulatory	Number of HIV-infected clients who had an HIV specialist visit during each trimester of the measurement year	Number of HIV-infected clients with at least two primary care visits during the measurement year	Electronic Medical Record/Electronic Health Record; CAREWare, Lab Tracker, or other electronic data base; HIVQUAL reports on this measure for grantee under review, or Medical record data abstraction by grantee of a sample of records
HRSA	Testing for CD4 count and viral load.	Infectious Diseases	Process	Ambulatory	Number of HIV-infected clients who had a CD4 and viral load during each trimester of the measurement year	Number of HIV-infected clients with at least two primary care visits during the measurement year	Electronic Medical Record/Electronic Health Record; CAREWare, Lab Tracker, or other electronic data base; HIVQUAL reports on this measure for grantee under review, or Medical record data abstraction by grantee of a sample of records
HRSA	Stable antiretroviral therapy.	Infectious Diseases	Process	Ambulatory	Number of HIV-infected clients who were clinically stable on antiretroviral therapy during each trimester of the measurement year	Number of HIV-infected clients with at least two primary care visits during the measurement year	Electronic Medical Record/Electronic Health Record; CAREWare, Lab Tracker, or other electronic data base; HIVQUAL reports on this measure for grantee under review, or Medical record data abstraction by grantee of a sample of records
HRSA	Therapy adherence assessment.	Infectious Diseases	Process	Ambulatory	Number of HIV-infected clients who had an adherence assessment during each trimester of the measurement year	Number of HIV-infected clients with at least two primary care visits during the measurement year	Electronic Medical Record/Electronic Health Record; CAREWare, Lab Tracker, or other electronic data base; HIVQUAL reports on this measure for grantee under review, or Medical record data abstraction by grantee of a sample of records
HRSA	Gynecology (GYN) screening.	Infectious Diseases	Process	Ambulatory	Number of HIV-infected female clients who had pelvic exam, cervical pap test, GC, and chlamydia screening in measurement year	Number of HIV-infected female clients with at least two primary care visits during the measurement year	
HRSA	Tuberculosis (TB) screening.	Infectious Diseases	Process	Ambulatory	Number of HIV-infected clients with a TB test completed and read in the past 24 months	Number of HIV-infected clients with at least two primary care visits during the measurement year with no prior history of TB or positive PPD	Electronic Medical Record/Electronic Health Record; CAREWare, Lab Tracker, or other electronic data base; HIVQUAL reports on this measure for grantee under review, or Medical record data abstraction by grantee of a sample of records
HRSA	Mental health issues.	Infectious Diseases	Process	Ambulatory	Number of HIV-infected patients screened in 7-9 components in the measurement year	Number of HIV-infected clients with at least two primary care visits during the measurement year	Electronic Medical Record/Electronic Health Record; CAREWare, Lab Tracker, or other electronic data base; HIVQUAL reports on this measure for grantee under review, or Medical record data abstraction by grantee of a sample of records

Quality Measurement and Public Reporting in the Current Healthcare Environment

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HRSA	Colon cancer screening.	Infectious Diseases	Process	Ambulatory	Number of HIV-infected patients over age 50 who received a colonoscopy in the measurement year	Number of HIV-infected clients over age 50 with at least two primary care visits during the measurement year	Electronic Medical Record/Electronic Health Record, CAREWare, Lab Tracker, or other electronic data base; HIVQUAL reports on this measure for grantee under review; or Medical record data abstraction by grantee of a sample of records
HRSA	Lipid screening.	Infectious Diseases	Process	Ambulatory	Number of HIV-infected patients on ARV who received a lipid screening in the measurement year	Number of HIV-infected clients on ARV with at least two primary care visits during the measurement year	
HRSA	Pneumocystis carinii pneumonia (PCP) prophylaxis.	Infectious Diseases	Process	Ambulatory	Number of HIV-infected clients with CD4 T-cell counts below 200 cells/mm3 who were prescribed PCP prophylaxis	Number of HIV-infected clients with CD4 T-cell counts below 200 cells/mm3	Electronic Medical Record/Electronic Health Record, CAREWare, Lab Tracker, or other electronic data base; HIVQUAL reports on this measure for grantee under review; or Medical record data abstraction by grantee of a sample of records
HRSA	MAC prophylaxis.	Infectious Diseases	Process	Ambulatory	Number of HIV-infected clients with CD4 T-cell counts below 50 cells/mm3 who were prescribed MAC prophylaxis	Number of HIV-infected clients with at least two primary care visits and CD4 T-cell counts below 50 cells/mm3	Electronic Medical Record/Electronic Health Record, CAREWare, Lab Tracker, or other electronic data base; HIVQUAL reports on this measure for grantee under review; or Medical record data abstraction by grantee of a sample of records
HRSA	Sexually transmitted disease (STD) screening.	Infectious Diseases	Process	Ambulatory	Number of HIV-infected clients with at least two primary care visits who received STD screening	Number of HIV-infected clients with at least two primary care visits	
HRSA	Pneumococcal vaccination.	Infectious Diseases	Process	Ambulatory	Number of HIV-infected clients with at least two primary care visits who received PnuemoVax in the past 10 years	Number of HIV-infected clients with at least two primary care visits	Electronic Medical Record/Electronic Health Record, CAREWare, Lab Tracker, or other electronic data base; HIVQUAL reports on this measure for grantee under review; or Medical record data abstraction by grantee of a sample of records
HRSA	Substance use screening.	Infectious Diseases	Process	Ambulatory	Number of HIV-infected clients with at least two primary care visits who had a documented discussion on substance use during the measurement year	Number of HIV-infected clients with at least two primary care visits	Electronic Medical Record/Electronic Health Record, CAREWare, Lab Tracker, or other electronic data base; HIVQUAL reports on this measure for grantee under review; or Medical record data abstraction by grantee of a sample of records
HRSA	Tobacco use screening.	Infectious Diseases	Process	Ambulatory	Number of HIV-infected clients with at least two primary care visits who had a documented discussion on tobacco use during the measurement year	Number of HIV-infected clients with at least two primary care visits	
HRSA	Dental exam.	Infectious Diseases	Process	Ambulatory	Number of HIV-infected clients with at least two primary care visits who had a documented dental exam during the measurement year	Number of HIV-infected clients with at least two primary care visits	Electronic Medical Record/Electronic Health Record, CAREWare, Lab Tracker, or other electronic data base; HIVQUAL reports on this measure for grantee under review; or Medical record data abstraction by grantee of a sample of records
HRSA	Ophthalmology care.	Infectious Diseases	Process	Ambulatory	Number of HIV-infected clients with at least two primary care visits with CD4 < 50 receiving a documented ophthalmology exams during the measurement year	Number of HIV-infected clients with at least two primary care visits with CD4 < 50	Electronic Medical Record/Electronic Health Record, CAREWare, Lab Tracker, or other electronic data base; HIVQUAL reports on this measure for grantee under review; or Medical record data abstraction by grantee of a sample of records
HRSA	Patient education.	Infectious Diseases	Process	Ambulatory	Number of HIV-infected clients with at least two primary care visits who received general HIV education, prevention for positive, and wellness information during the measurement year	Number of HIV-infected clients with at least two primary care visits	

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Division	Measure Name	Condition	Domain	Care Setting	Numerator	Denominator	Data Source
HRSA	Pediatric neurodevelopment.	Infectious Diseases	Process	Ambulatory	Number of HIV-infected clients < two years of age with at least two primary care visits who received neurodevelopment assessments during the measurement year	Number of HIV-infected clients < two years of age with at least two primary care visits	Electronic Medical Record/Electronic Health Record; CAREWare, Lab Tracker, or other electronic data base; HIVQUAL reports on this measure for grantee under review, or Medical record data abstraction by grantee of a sample of records
HRSA	Pediatric vaccination.	Infectious Diseases	Process	Ambulatory	Number of HIV-infected clients < thirteen years of age with at least two primary care visits who received all routine immunizations for their age	Number of HIV-infected clients < thirteen years of age with at least two primary care visits	Electronic Medical Record/Electronic Health Record; CAREWare, Lab Tracker, or other electronic data base; HIVQUAL reports on this measure for grantee under review, or Medical record data abstraction by grantee of a sample of records
HRSA	Case management.	Infectious Diseases	Process	Ambulatory	Number of HIV-infected clients with at least two primary care visits receiving case management services	Number of HIV-infected clients with at least two primary care visits receiving case management services	Electronic Medical Record/Electronic Health Record; CAREWare, Lab Tracker, or other electronic data base; HIVQUAL reports on this measure for grantee under review, or Medical record data abstraction by grantee of a sample of records
HRSA	Adherence.	Infectious Diseases	Process	Ambulatory	Number of HIV-infected clients with at least two primary care visits receiving case management services who received a documented discussion on adherence every trimester during the measurement year	Number of HIV-infected clients with at least two primary care visits receiving case management services	Electronic Medical Record/Electronic Health Record; CAREWare, Lab Tracker, or other electronic data base; HIVQUAL reports on this measure for grantee under review, or Medical record data abstraction by grantee of a sample of records
HRSA	HIV knowledge.	Infectious Diseases	Process	Ambulatory	Number of HIV-infected clients with at least two primary care visits receiving case management services with a documented HIV knowledge session twice during the measurement year	Number of HIV-infected clients with at least two primary care visits receiving case management services	Electronic Medical Record/Electronic Health Record; CAREWare, Lab Tracker, or other electronic data base; HIVQUAL reports on this measure for grantee under review, or Medical record data abstraction by grantee of a sample of records
HRSA	Service plan.	Infectious Diseases	Process	Ambulatory	Number of HIV-infected clients with at least two primary care visits receiving case management services with a documented review or change in the service plan twice in the measurement year	Number of HIV-infected clients with at least two primary care visits receiving case management services	Electronic Medical Record/Electronic Health Record; CAREWare, Lab Tracker, or other electronic data base; HIVQUAL reports on this measure for grantee under review, or Medical record data abstraction by grantee of a sample of records
HRSA	Self management.	Infectious Diseases	Process	Ambulatory	Number of HIV-infected clients with at least two primary care visits receiving case management services who signed their reviewed or changed service plan twice in the measurement year	Number of HIV-infected clients with at least two primary care visits receiving case management services	Electronic Medical Record/Electronic Health Record; CAREWare, Lab Tracker, or other electronic data base; HIVQUAL reports on this measure for grantee under review, or Medical record data abstraction by grantee of a sample of records
HRSA	Percentage of children with 2nd birthday during the measurement year with appropriate immunizations.	Immunizations	Process	Ambulatory	Number of children in the "universe" who received all of the following: 4 DTP/DTaP, 3 IPV, 1 MMR, 3 Hib, 3 HepB, 1 VZV (Varicella) and 4 pneumococcal conjugate, prior to or on their 2nd birthday whose second birthday occurred during the measurement year (prior to 31 December), among those children included in the denominator	Number of children with at least one medical encounter during the reporting period, who had their second birthday during the reporting period, who did not have a contraindication for a specific vaccine. For measurement year 2008, this includes children with date of birth on or after January 1, 2006 and on or before December 31, 2006, who were seen for the first time in the clinic prior to their second birthday, regardless of whether or not they came to the clinic for vaccinations or well child care.	EHR, Chart Extraction, Registry
HRSA	Percentage of births less than 2,500 grams to health center patients.	Population	Outcome	Hospital IP	Women who were seen for prenatal care whose child weighed less than 2,500 grams during the measurement year, regardless of who did the delivery	Total births for all women who were seen for prenatal care during the measurement regardless of who did the delivery	EHR, Chart Extraction

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Division	Measure Name	Condition	Domain	Care Setting	Numerator	Denominator	Data Source
HRSA	Percentage of adult patients 18 years and older with diagnosed hypertension whose most recent blood pressure was less than 140/90.	Cardiovascular	Outcome	Ambulatory	Patients 18 years and older (for measurement year 2008, date of birth on or before December 31, 1990) with a diagnosis of hypertension with most recent systolic blood pressure measurement < 140 mm Hg and diastolic blood pressure < 90 mm Hg	All patients greater than or equal to 18 years of age as of December 31 of the measurement year (for measurement year 2008, date of birth on or before December 31, 1990) with diagnosis of hypertension and have been seen at least twice during the reporting year, and have a diagnosis of hypertension	EHR, Chart Extraction
HRSA	Percentage of adult diabetic patients 18 years and older whose most recent hemoglobin A1c (HbA1c) test was less than 7 % (adequate control); whose most recent HbA1c test was greater than or equal to 7% and less than or equal to 9%; or whose most recent HbA1c test was greater than 9% (poor control).	Diabetes	Outcome	Ambulatory	Number of adult patients age 18 and older with a diagnosis of Type 1 or Type 2 diabetes whose most recent hemoglobin A1c level during the measurement year is < 7%, > 7% and < 9%, or > 9%, respectively, among those patients included in the denominator	Number of adult patients 18 years and older as of December 31 of the measurement year (for measurement year 2008, date of birth on or before December 31, 1990) with a diagnosis of type 1 or 2 diabetes, who have been seen in the clinic at least twice during the reporting year and do not meet any of the exclusion criteria	EHR, Chart Extraction
HRSA	Percentage of women 21-64 years of age who received one or more Pap tests during the measurement year or during the two years prior to the measurement year.	Cancer	Process	Ambulatory	Number of female patients 21 – 64 years of age receiving one or more Pap tests during the measurement year or during the two years prior to the measurement year (for measurement year 2008, patients born on or after January 1, 1944 and on or before December 31, 1987), among those women included in the denominator	Number of female patients age 21-64 years of age during the measurement year (for measurement year 2008, patients born on or after January 1, 1944 and on or before December 31, 1987) who were seen for a medical encounter at least once during 2008 and were first seen by the grantee before their 65th birthday	EHR, Chart Extraction
HRSA	Trimester of entry into prenatal care.	Population	Process	Ambulatory	All female patients who received perinatal care during the program year (regardless of when they began care) who initiated care in the first trimester, either at the grantee's service delivery location or with another provider	Number of female patients who received prenatal care during the program year (regardless of when they began care), either at the grantee's service delivery location or with another provider. Initiation of care means the first visit with a clinical provider (MD/DO, NP, PA, CNM) where the initial physical exam was done and does not include a visit at which pregnancy was diagnosed or one where initial tests were done or vitamins were prescribed.	EHR, Chart Extraction
IHS	Diabetes prevalence.	Diabetes	Outcome	Ambulatory	1) Anyone diagnosed with diabetes (POV 250.00-250.93) ever. 2) Anyone diagnosed with diabetes during the Report Period.	1) User population patients ages 55 and older, broken down by gender and age groups: 55-64, 75-74, 75-84, 85+	RPMS/CRS Application
IHS	Diabetes: Glycemic control.	Diabetes	Outcome	Ambulatory	1) Hemoglobin A1c documented during the Report Period. 2) Poor control: A1c greater than (>) 9.5. 3) Very poor control: A1c equals or greater than (≥) 12. 4) Poor control: A1c greater than (>) 9.5 and less than (<) 12. 5) Fair control A1c equals or greater than (≥) 8 and less than or equal to (<=) 9.5. 6) Good control: A1c equals or greater than (>=) 7 and less than (<) 8. 7) Ideal control: A1c less than (<) 7. 8) Undetermined A1c (no result).	1) Active diabetic patients ages 55 and older broken down by age groups. Active diabetic defined as all active clinical patients diagnosed with diabetes (POV 250.00-250.93) at least one year prior to the Report Period, AND at least 2 visits in the past year, AND 2 DM-related visits ever. Broken down by age groups: 55-64, 75-74, 75-84, 85+	RPMS/CRS Application
IHS	Diabetes: Blood pressure control.	Diabetes	Outcome	Ambulatory	1) Total with BP value (at least 2 [3 if available] non-ER BPs documented during the Report Period). 2) Controlled BP, < 130/80. 3) Not controlled BP.	1) Active diabetic patients ages 55 and older broken down by age groups. Active diabetic defined as all active clinical patients diagnosed with diabetes (POV 250.00-250.93) at least one year prior to the Report Period, AND at least 2 visits in the past year, AND 2 DM-related visits ever. Broken down by age groups: 55-64, 75-74, 75-84, 85+	RPMS/CRS Application
IHS	Diabetes: Low-density Lipoprotein (LDL) assessment (renamed from diabetes: lipids assessment).	Diabetes	Process	Ambulatory	2) Patients with LDL completed during the Report Period, regardless of result; 3) LDL < 130; 3A) LDL ≤ 100; 3B) LDL 101-129	1) Active diabetic patients ages 55 and older broken down by age groups. Active diabetic defined as all active clinical patients diagnosed with diabetes (POV 250.00-250.93) at least one year prior to the Report Period, AND at least 2 visits in the past year, AND 2 DM-related visits ever. Broken down by age groups: 55-64, 75-74, 75-84, 85+	RPMS/CRS Application
IHS	Diabetes: Nephropathy assessment.	Diabetes	Process	Ambulatory	1) Patients with nephropathy assessment, defined as an estimated GFR AND a quantitative urinary protein assessment during the Report Period OR with evidence of diagnosis and/or treatment of ESRD at any time before the end of the Report Period	1) Active diabetic patients ages 55 and older broken down by age groups. Active diabetic defined as all active clinical patients diagnosed with diabetes (POV 250.00-250.93) at least one year prior to the Report Period, AND at least 2 visits in the past year, AND 2 DM-related visits ever. Broken down by age groups: 55-64, 75-74, 75-84, 85+	RPMS/CRS Application
IHS	Diabetic Retinopathy.	Diabetes	Process	Ambulatory	Patients receiving a qualified retinal evaluation during the Report Period, or a documented refusal of a diabetic retinal exam	1) Active diabetic patients ages 55 and older broken down by age groups. Active diabetic defined as all active clinical patients diagnosed with diabetes (POV 250.00-250.93) at least one year prior to the Report Period, AND at least 2 visits in the past year, AND 2 DM-related visits ever. Broken down by age groups: 55-64, 75-74, 75-84, 85+	RPMS/CRS Application
IHS	Access to dental services.	HEENT	Structure/Access	Ambulatory	Patients with documented dental visit during the Report Period, including refusals	All patients in the user population ages 55 and older, broken down by age groups	RPMS/CRS Application
IHS	Adult immunizations: Influenza.	Immunizations	Process	Ambulatory	Patients with influenza vaccine or refusal documented during the Report Period	Active clinical patients ages 55 and older, broken down by age groups	RPMS/CRS Application
IHS	Adult immunizations: Pneumovax.	Immunizations	Process	Ambulatory	Patients with pneumococcal vaccine or contraindication documented at any time before the end of the Report Period or with a refusal in the past year	Active clinical patients ages 55 and older, broken down by age groups	RPMS/CRS Application
IHS	Cancer screening: Mammogram rates.	Cancer	Process	Ambulatory	Patients with documented mammogram in past two years or refusal in past year	Female active clinical patients ages 55 and older without a documented history of bilateral mastectomy or two separate unilateral mastectomies, broken down by age groups	RPMS/CRS Application

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IHS	Colorectal cancer screening.	Cancer	Process	Ambulatory	1) Patients who have had ANY CRC colorectal screening, defined as any of the following: A) Fecal Occult Blood test (FOBT) during the Report Period; B) flexible sigmoidoscopy or double contrast barium enema in the past five years; C) colonoscopy in the past 10 years, or D) a documented refusal in the past year	All active clinical patients ages 55 and older without a documented history of colorectal cancer or total colectomy, broken down by gender and age groups	RPMS/CRS Application
IHS	Intimate partner (domestic) violence screening.	Behavioral Health	Process	Ambulatory	Patients screened for or diagnosed with intimate partner (domestic) violence during the Report Period, including documented refusals in past year: A) Patients with documented IPV/DV exam; B) Patients with IPV/DV related diagnosis; C) Patients provided with IPV/DV patient education or counseling; D) Patients with documented refusal in past year of an IPV/DV exam or IPV/DV-related education	1) Female active clinical patients ages 55 and older, broken down by age groups	RPMS/CRS Application
IHS	Depression screening.	Mental Health	Process	Ambulatory	1) Patients screened for depression or diagnosed with mood disorder at any time during the Report Period, including documented refusals in past year; 2) Patients with depression-related education or refusal of education in past year	Active cClinical patients ages 55 and older, broken down by gender and age groups	RPMS/CRS Application
IHS	Diabetes: Poor glycemic control (transparency measure A1c < 9.0 or A1c w/no result or no A1c).	Diabetes	Outcome	Ambulatory	Patients with A1c greater than (>) 9.0 or patients with no test or a test with no value	Active diabetic patients, defined as all active clinical patients diagnosed with diabetes prior to the Report Period, AND at least 2 visits during the Report Period, AND 2 DM-related visits ever	RPMS/CRS Application
IHS	Diabetes: Blood pressure (BP) control (transparency measure BP < 140/90).	Diabetes	Outcome	Ambulatory	Patients with BP level of < 140/90 during the Report Period, i.e., the mean systolic value is less than 140 AND the mean diastolic value is less than 90	Active diabetic patients, defined as all active clinical patients diagnosed with diabetes prior to the Report Period, AND at least 2 visits during the Report Period, AND 2 DM-related visits ever	RPMS/CRS Application
IHS	Diabetes: Low-density lipoprotein (LDL) control (transparency measure LDL < 100).	Diabetes	Outcome	Ambulatory	Patients with LDL result less than (<) 100	Active diabetic patients, defined as all active clinical patients diagnosed with diabetes prior to the Report Period, AND at least 2 visits during the Report Period, AND 2 DM-related visits ever	RPMS/CRS Application
IHS	Assessment of oxygen saturation for community-acquired bacterial pneumonia (transparency measure).	Infectious Diseases	Process	Ambulatory	Number of visits where patients had oxygen saturation documented and reviewed	Number of visits for user population patients ages 18 and older diagnosed with community-acquired bacterial pneumonia at an outpatient visit during the Report Period	RPMS/CRS Application
IHS	Stroke and stroke rehabilitation: Anticoagulant therapy prescribed for atrial fibrillation at discharge (transparency measure).	Cardiovascular	Process	Ambulatory	Number of visits where patients received a prescription for anticoagulant at discharge	Number of visits for user population patients ages 18 and older who were discharged with ischemic stroke or transient ischemic attack (TIA) with documented permanent, persistent, or paroxysmal atrial fibrillation	RPMS/CRS Application
IHS	Childhood immunizations.	Immunizations	Process	Ambulatory	1) Patients with 4 doses of DTaP, or who have evidence of the disease, a contraindication, or a documented refusal; 2) Patients with 3 doses of Polio, or who have evidence of the disease, a contraindication, or a documented refusal; 3) Patients with 1 dose of MMR, or who have evidence of the disease, a contraindication, or a documented refusal; 4) Patients with 3 doses of Hib, or who have evidence of the disease, a contraindication, or a documented refusal; 5) Patients with 3 doses of Hepatitis B, or who have evidence of the disease, a contraindication, or a documented refusal; 6) Patients with 1 dose of Varicella, or who have evidence of the disease, a contraindication, or a documented refusal; 7) Patients with 4 doses of Pneumococcal conjugate, or who have evidence of the disease, a contraindication, or a documented refusal; 8) Patients who have received the 4:3:1:3:3:1 combination (i.e., 4 DTaP, 3 Polio, 1 MMR, 3 Hib, 3 Hepatitis B, 1 Varicella), including refusals, contraindications, and evidence of disease; 9) Patients who have received the 4:3:1:3:3:1:4 combination (renamed from "all childhood immunizations") (i.e., 4 DTaP, 3 Polio,	Active clinical patients ages 19-35 months at end of Report Period	RPMS/CRS Application
IHS	Use of appropriate medications for people with asthma (transparency measure).	Respiratory	Process	Ambulatory	Patients who had at least one dispensed prescription for primary asthma therapy medication during the Report period	Active clinical patients ages 5-56 with persistent asthma within the year prior to the beginning of the Report Period and during the Report Period, without a documented history of emphysema or chronic obstructive pulmonary disease (COPD), broken down by age groups	RPMS/CRS Application
IHS	Dental sealants.	HEENT	Process	Ambulatory			RPMS/CRS Application
IHS	Topical fluoride.	HEENT	Process	Ambulatory			RPMS/CRS Application
IHS	Adult immunizations: Influenza (transparency measure ages 50-64 with influenza immunization).	Immunizations	Process	Ambulatory	1) GPRA: Patients with influenza vaccine or refusal documented during the Report Period or with a contraindication documented at any time before the end of the Report Period	GPRA: Ages 65 and older	RPMS/CRS Application
IHS	Cancer screening: Pap smear rates.	Cancer	Process	Ambulatory	GPRA: Patients with documented Pap smear in past three years or refusal in past year	GPRA: Female active clinical patients ages 21 through 64 without a documented history of hysterectomy. Patients must be at least 21 years of age at the beginning of the Report Period and less than 65 years of age as of the end of the Report Period.	RPMS/CRS Application
IHS	Tobacco cessation.	Behavioral Health	Process	Ambulatory	1) GPRA: Patients who have received or refused tobacco cessation counseling or received a prescription for a smoking cessation aid during the Report Period, including documented refusal in past year 2) Patients identified during the Report Period as having quit their tobacco use.	GPRA: Active clinical patients identified as current tobacco users prior to the Report Period, broken down by gender and age groups: < 12, 12-17, 18 and older	RPMS/CRS Application
IHS	Alcohol screening (fetal alcohol syndrome [FAS] prevention).	Behavioral Health	Process	Ambulatory	GPRA: Patients screened for alcohol use during the Report Period, including refusals in the past year	GPRA: Female active clinical patients ages 15 to 44 (child-bearing age)	RPMS/CRS Application
IHS	Childhood weight control.	Obesity	Outcome	Ambulatory	1) Patients with BMI 85-94%; 2) GPRA Numerator: Patients with a BMI 95% and up; 3) Patients with a BMI => 85%	Active clinical patients 2-5 for whom a BMI could be calculated, broken out by age groups	RPMS/CRS Application

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## HHS Measure Inventory

Measures not publicly reported by each division and not related to hospitals have been excluded.

Division	Measure Name	Condition	Domain	Care Setting	Numerator	Denominator	Data Source
IHS	Comprehensive Cardiovascular (CVD)-related assessment.	Cardiovascular	Process	Ambulatory	1) Patients with Blood Pressure value documented at least twice in prior two years; 2) With LDL completed in past five years, regardless of result; 3) Screened for tobacco use during the Report Period; 4) For whom a BMI could be calculated, including refusals in the past year; 5) Who have received any lifestyle adaptation counseling, including medical nutrition counseling, or nutrition, exercise or other lifestyle education during the Report Period; 6) GPRA: Patients with ALL assessments above. NOTE: This does NOT include depression screening; 7) Screened for depression or diagnosed with a mood disorder during the Report Period, including documented refusals in past year	GPRA: Active IHD patients ages 22 and older, defined as all active clinical patients diagnosed with ischemic heart disease (IHD) prior to the Report Period, AND at least 2 visits during the Report Period, AND 2 IHD-related visits ever	RPMS/CRS Application
IHS	RTC accreditation.	Health Care	Structure/Ac	Long-term Care			Division of Behavioral Health
IHS	Accreditation.	Health Care	Structure/Ac	Hospital IP			Office of Resource Access and Partnership (ORAP)
IHS	Patient safety.	Patient Safety	Structure/Ac	Hospital IP			Patient Safety Coordinator
IHS	Scholarships.	Health Care	Process	Health System			Scholarship Program/Scholar Tracking System
IHS	Public health nursing.	Population	Process	Health System			Indian Health Performance Evaluation System (IHPE)
IHS	Unintentional injury mortality.	Population	Outcome	Health System			NCHS IHS Division of Program Statistics
IHS	Suicide surveillance.	Mental Health	Structure/Ac	Ambulatory			RPMS/Behavioral Health Package
IHS	Environmental surveillance.	Health Care	Structure/Ac	Health System			Environmental Health Program/WebEHRS
IHS	Sanitation improvement.	Population	Outcome	Home Health			Sanitation Tracking and Reporting System (STARS)
IHS	Health care facility construction.	Health Care	Structure/Ac	Health System			Health Care Facilities Construction Program
IHS	Percent reduction of the Years of Potential Life Lost (YPLL) within 7 years of opening the new facility.	Population	Outcome	Health System			Division of Program Statistics
IHS	Percent increase in the proportion of diagnosed ideal blood sugar control within 7 years of opening the new facility.	Diabetes	Outcome	Health System	1) Hemoglobin A1c documented during the Report Period; 2) GPRA: Ideal control: A1c less than (<) 7	GPRA: Active diabetic patients; defined as all Active Clinical patients diagnosed with diabetes (POV 250.00-250.93) at least one year prior to the Report Period, AND at least 2 visits in the past year, AND 2 DM-related visits ever. Key denominator for this and all diabetes-related topics below.	RPMS/CRS Application
IHS	Percent of scheduled construction projects completed on time.	Health Care	Efficiency	Health System			Health Care Facilities Construction Program
IHS	Proportion of diagnosed diabetics demonstrating ideal blood sugar control (A1c < 7.0).	Diabetes	Outcome	Health System	1) Hemoglobin A1c documented during the Report Period; 2) GPRA: Ideal control: A1c less than (<) 7	GPRA: Active diabetic patients; defined as all Active Clinical patients diagnosed with diabetes (POV 250.00-250.93) at least one year prior to the Report Period, AND at least 2 visits in the past year, AND 2 DM-related visits ever. Key denominator for this and all diabetes-related topics below.	RPMS/CRS Application
IHS	Injury intervention.	Population	Process	Health System			Environmental Health Program/WebEHRS
IHS	Proportion of eligible women who have had a pap screen within the previous three years.	Cancer	Process	Health System	GPRA: Patients with documented Pap smear in past three years or refusal in past year	GPRA: Female active clinical patients ages 21 through 64 without a documented history of hysterectomy. Patients must be at least 21 years of age at the beginning of the Report Period and less than 65 years of age as of the end of the Report Period	RPMS/CRS Application
IHS	Proportion of eligible women who have had mammography screening within the previous two years.	Cancer	Process	Health System	GPRA: Patients with documented mammogram in past two years or refusal in past year	GPRA: Female active clinical patients ages 52 through 64, without a documented bilateral mastectomy or two separate unilateral mastectomies; For the 52-64 denominator, the patients must be less than 65 years of age as of the end of the Report Period	RPMS/CRS Application
IHS	Alcohol screening (to prevent fetal alcohol syndrome) among appropriate female patients.	Behavioral Health	Process	Health System	GPRA: Patients screened for alcohol use during the Report Period, including refusals in the past year	GPRA: Female active clinical patients ages 15 to 44 (child-bearing age)	RPMS/CRS Application
IHS	Combined immunization rate for American Indian/Alaska Native (AI/AN) children patients aged 19-35 months. (4:3:1:3:3 series)	Immunizations	Process	Health System	1) GPRA: Patients who have received the 4:3:1:3:3 combination (i.e., 4 DTap, 3 Polio, 1 MMR, 3 Hib, 3 Hepatitis B), including refusals, contraindications, and evidence of disease; 2) Patients with 4 doses of DTap, or who have evidence of the disease, a contraindication, or a documented refusal; 3) Patients with 3 doses of Polio, or who have evidence of the disease, a contraindication, or a documented refusal; 4) Patients with 1 dose of MMR, or who have evidence of the disease, a contraindication, or a documented refusal; 5) Patients with 3 doses of Hib, or who have evidence of the disease, a contraindication, or a documented refusal; 6) Patients with 3 doses of Hepatitis B, or who have evidence of the disease, a contraindication, or a documented refusal	1) Active Clinical patients ages 19-35 months at end of Report Period; 2) GPRA: User Population patients active in the Immunization Package who are 19-35 months at end of Report period. NOTE: Sites must be running the RPMS Immunization package for this denominator. Sites not running the package will have a value of zero for this denominator.	RPMS/CRS Application
IHS	Influenza vaccination rates among adult patients aged 65 years and older.	Immunizations	Process	Health System	1) GPRA: Patients with influenza vaccine or refusal documented during the Report Period or with a contraindication documented at any time before the end of the Report Period	GPRA: Ages 65 and older	RPMS/CRS Application

Quality Measurement and Public Reporting in the Current Healthcare Environment

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## HHS Measure Inventory

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Division	Measure Name	Condition	Domain	Care Setting	Numerator	Denominator	Data Source
IHS	Pneumococcal vaccination rates among adult patients aged 65 years and older.	Immunizations	Process	Health System	GPRA: Patients with pneumococcal vaccine or contraindication documented at any time before the end of the Report Period or with a refusal in the past year	GPRA: Active clinical patients ages 65 or older	RPMS/CRS Application
IHS	Develop comprehensive electronic health record (EHR) with clinical guidelines for select chronic diseases.	Health Care Delivery	Structure/Acceptance	Health System			Office of Information Technology
IHS	Derive all clinical measures from RPMS and integrate with electronic health record (EHR) (clinical measures/areas).	Health Care Delivery	Structure/Acceptance	Health System			Office of Information Technology
IHS	Deploy electronic health record (EHR).	Health Care Delivery	Structure/Acceptance	Health System			Office of Information Technology
IHS	Track average project duration from the MOA execution to construction completion.	Population	Structure/Acceptance	Home Health			Sanitation Tracking and Reporting System (STARS)
IHS	Percentage of American Indian/Alaska Native (AI/AN) homes with sanitation facilities.	Population	Structure/Acceptance	Home Health	Homes with sanitation facilities	Homes without sanitation facilities	Sanitation Tracking and Reporting System (STARS)
IHS	Number of new or like-new American Indian/Alaska Native (AI/AN) homes and existing homes provided with sanitation facilities.	Population	Structure/Acceptance	Home Health			Sanitation Tracking and Reporting System (STARS)
IHS	Number of hospitalizations for long term complications among patients with diabetes in direct facilities.	Diabetes	Outcome	Health System			Division of Program Statistics
IHS	Years of Potential Life Lost (YPLL) in American Indian/Alaska Native (AI/AN) population (Federally-administered activities).	Population	Outcome	Health System			Division of Program Statistics
IHS	Children ages 2-5 years with a body mass index (BMI) in the 95th percentile or higher.	Obesity	Outcome	Health System	1) Patients with BMI 85-94%; 2) GPRA Numerator: Patients with a BMI 95% and up; 3) Patients with a BMI => 85%	Active clinical patients 2-5 for whom a BMI could be calculated, broken out by age groups	RPMS/CRS Application
IHS	Unintentional injury mortality rate in American Indian/Alaska Native (AI/AN) population.	Population	Outcome	Health System			Division of Program Statistics
IHS	Hospital admissions per 100,000 diabetics per year for long-term complications of diabetes.	Diabetes	Outcome	Hospital IP			Division of Program Statistics
IHS	Proportion of infants 2 months old (45-89 days old) that are exclusively or mostly breastfed.	Population	Structure/Acceptance	Health System	1) Patients who were screened for infant feeding choice at least once; 2) Patients who were screened for infant feeding choice at the age of two months (45-89 days); 3) Patients were screened for infant feeding choice at the age of six months (165-209 days); 4) Patients who were screened for infant feeding choice at the age of nine months (255-299 days); 5) Patients who were screened for infant feeding choice at the age of 1 year (350-394 days); 6) Patients who, at the age of two months (45-89 days), were either exclusively or mostly breastfed; 7) Patients who, at the age of six months (165-209 days), were either exclusively or mostly breastfed; 8) Patients who, at the age of nine months (255-299 days), were either exclusively or mostly breastfed; 9) Patients who, at the age of 1 year (350-394 days), were either exclusively or mostly breastfed	1) Active clinical patients who are 45-394 days old; 2) Active clinical patients who are 45-394 days old who were screened for infant feeding choice at the age of two months (45-89 days); 3) Active clinical patients who are 45-394 days old who were screened for infant feeding choice at the age of six months (165-209 days); 4) Active clinical patients who are 45-394 days old who were screened for infant feeding choice at the age of nine months (255-299 days); 5) Active clinical patients who are 45-394 days old who were screened for infant feeding choice at the age of 1 year (350-394 days)	Division of Program Statistics
IHS	Percentage of American Indian/Alaska Native (AI/AN) patients with diagnosed diabetes served by tribal health programs that achieve ideal blood sugar control.	Diabetes	Outcome	Ambulatory	1) Hemoglobin A1c documented during the Report Period; 2) GPRA: Ideal control: A1c less than (<) 7	GPRA: Active diabetic patients; defined as all active clinical patients diagnosed with diabetes (POV 250.00-250.93) at least one year prior to the Report Period, AND at least 2 visits in the past year, AND 2 DM-related visits ever. Key denominator for this and all diabetes-related topics below.	RPMS/CRS Application
IHS	Years of Potential Life Lost (YPLL) in the American Indian/Alaska Native (AI/AN) populations served by tribal health programs.	Population	Outcome	Health System			Division of Program Statistics
IHS	Cost per service user in dollars per year.	Health Care Delivery	Efficiency	Ambulatory			Urban Indian Health Program
IHS	Percentage of tribally-operated health programs' clinical user population included in GPRA data.	Health Care Delivery	Structure/Acceptance	Health System	Clinical user population of TOHPs reporting GPRA data	Clinical user population TOHPs	National GPRA Support Team
IHS	Number of designated annual clinical performance goals met.	Health Care Delivery	Outcome	Health System			RPMS/CRS Application
IHS	Percent decrease in Years of Potential Life Lost (YPLL).	Population	Outcome	Ambulatory			Division of Program Statistics
IHS	Percentage of American Indian/Alaska Native (AI/AN) patients with diagnosed diabetes served by urban health programs that achieve ideal blood sugar control.	Diabetes	Outcome	Ambulatory	1) Hemoglobin A1c documented during the Report Period; 2) GPRA: Ideal control: A1c less than (<) 7	GPRA: Active diabetic patients; defined as all active clinical patients diagnosed with diabetes (POV 250.00-250.93) at least one year prior to the Report Period, AND at least 2 visits in the past year, AND 2 DM-related visits ever. Key denominator for this and all diabetes-related topics below.	RPMS/CRS Application & UIHP
IHS	Percent decrease in obesity rates in children (2-5 years).	Obesity	Outcome	Ambulatory	1) Patients with BMI 85-94%; 2) GPRA Numerator: Patients with a BMI 95% and up; 3) Patients with a BMI => 85%	Active clinical patients 2-5 for whom a BMI could be calculated, broken out by age groups	RPMS/CRS Application & UIHP

## HHS Measure Inventory

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Division	Measure Name	Condition	Domain	Care Setting	Numerator	Denominator	Data Source
IHS	Diabetes comprehensive care.	Diabetes	Outcome	Ambulatory	1) Patients with hemoglobin A1c documented during the Report Period, regardless of result; 2) Patients with blood pressure documented during the Report Period; 3) Patients with controlled blood pressure during the Report Period, defined as < 130/80. This measure is not included in the comprehensive measure (numerator 8 below); 4) Patients with LDL completed during the Report Period, regardless of result; 5) Patients with nephropathy assessment, defined as an estimated GFR and a quantitative urinary protein assessment during the Report Period, or with evidence of diagnosis and/or treatment of ESRD at any time before the end of the Report Period; 6) Patients receiving a qualified retinal evaluation during the Report Period, or a documented refusal of a diabetic retinal exam; 7) Patients with diabetic foot exam during the Report Period, or a documented refusal of a diabetic foot exam; 8) Patients with A1c AND blood pressure AND LDL AND nephropathy assessment AND retinal exam AND diabetic foot exam	Active diabetic patients, defined as all active clinical patients diagnosed with diabetes (POV 250.00-250.93) at least one year prior to the Report Period, AND at least 2 visits in the past year, AND 2 DM-related visits ever	RPMS/CRS Application
IHS	Proportion of tobacco-using patients that receive tobacco cessation intervention.	Behavioral Health	Process	Health System	1) GPRA: Patients who have received or refused tobacco cessation counseling or received a prescription for a smoking cessation aid during the Report Period, including documented refusal in past year; 2) Patients identified during the Report Period as having quit their tobacco use	GPRA: Active clinical patients identified as current tobacco users prior to the Report Period, broken down by gender and age groups: < 12, 12-17, 18 and older	RPMS/CRS Application
IHS	Alcohol screening and brief intervention (ASBI) in the electronic record (ER).	Behavioral Health	Process	Hospital OP	1) Number of visits where patients were screened in the ER for hazardous alcohol use. A) Number of visits where patients were screened positive (also used as denominator #2) 2) Number of visits where patients were provided a brief negotiated interview (BNI) at or within 7 days of the ER visit (used only with denominator #2). A) Number of visits where patients were provided a BNI at the ER visit. B) Number of visits where patients were provided a BNI not at the ER visit but within 7 days of the ER visit.	1) Number of visits for active clinical patients age 15-34 seen in the ER for injury during the Report Period. Broken out by gender and age groups of 15-24 and 25-34; 2) Number of visits for Active Clinical patients age 15-34 seen in the ER for injury and screened positive for hazardous alcohol use during the Report Period. Broken out by gender and age groups of 15-24 and 25-34	RPMS/CRS Application
IHS	Prediabetes/metabolic syndrome.	Diabetes	Process	Ambulatory	1) Patients with blood pressure documented at least twice during the Report Period; 2) Patients with LDL completed, regardless of result, during the Report Period; 3) Patients with fasting glucose test, regardless of result, during the Report Period; 4) Patients with nephropathy assessment, defined as an estimated GFR and a quantitative urinary protein assessment (changed from positive urine protein or any microalbuminuria) during the Report Period OR with evidence of diagnosis and/or treatment of ESRD at any time before the end of the Report Period; 5) Patients who have been screened for tobacco use during the Report Period; 6) Patients for whom a BMI could be calculated, including refusals in the past year; 7) Patients who have received any lifestyle adaptation counseling, including medical nutrition counseling, or nutrition, exercise or other lifestyle education during the Report Period; 8) Patients screened for depression or diagnosed with a mood disorder at any time during the Report Period, including documented refusals in past year; 9) Patients with all screenings	Active clinical patients ages 18 and older diagnosed with prediabetes/metabolic syndrome without a documented history of diabetes	RPMS/CRS Application
IHS	Goal setting.	Health Care Delivery	Process	Ambulatory	1) Number of patients who set at least one goal during the Report Period; 2) Number of patients who did not set at least one goal during the Report Period; 3) Number of patients who met at least one goal during the Report Period; 4) Number of patients who did not meet at least one goal during the Report Period	User population patients who received patient education during the Report Period	RPMS/CRS Application
IHS	Rate for top 15 provider disciplines who educated.	Health Care Delivery	Process	Ambulatory	The 15 most common provider discipline codes that provided education during the Report Period	The total number of patient education codes documented for user population patients for all providers during the Report Period	RPMS/CRS Application
IHS	Diabetic access to dental services (elder population 55 and older).	Diabetes	Process	Ambulatory	Patients with a documented dental visit during the Report Period, including refusals	Active diabetic patients, defined as all active clinical patients diagnosed with diabetes (POV 250.00-250.93) at least one year prior to the Report Period, AND at least 2 visits in the past year, AND 2 DM-related visits ever	RPMS/CRS Application
IHS	Develop and deployment of patient safety measurement system.	Patient Safety	Structure/Acceptance	Health System			Office of Information Technology
IHS	Palliative care (elder population of 55 and older).	End of Life	Process	Ambulatory			RPMS/CRS Application
NIH	Registered nurse education and certification.	Health Care Delivery	Structure/Acceptance	Hospital IP			Hospital Nursing Database-ANSOS
NIH	Adjuvant chemotherapy for stage III colorectal cancer patients.	Cancer	Process	Hospital OP	Consideration or administration of chemotherapy initiated within 4 months of diagnosis	Individuals age 18-79 at diagnosis with an AJCC stage III colorectal cancer known to be alive within 120 days of diagnosis	
NIH	Multi-agent chemotherapy for node positive breast cancer patients.	Cancer	Process	Hospital OP	Consideration or administration of multi-agent chemotherapy initiated within 4 months of diagnosis	Women aged 18-69 with primary tumor estrogen receptor negative and progesterone receptor negative surgical treatment by breast conserving surgery who are alive within 120 days of diagnosis	Hospital-based Cancer Registry
NIH	Radiation therapy for patients with breast conserving surgery.	Cancer	Process	Hospital OP	Radiation therapy to the breast initiated within 1 year of the date of diagnosis	Women aged 18-69 with surgical treatment by breast conserving surgery who are alive within one year of diagnosis	Hospital-based Cancer Registry
NIH	Hormonal therapy for for breast cancer patients with ER+ or PR+ tumors.	Cancer	Process	Hospital OP	Consideration or administration of tamoxifen or third generation aromatase inhibitor initiated within one year of diagnosis	Women age 18 or higher whose primary tumor is estrogen receptor positive or progesterone receptor positive and alive within one year of diagnosis	Hospital-based Cancer Registry

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NIH	E-mail response time.	Health Care Delivery	Structure/Access	Health System	Response provided within 5 business days		NCI Web Site (www.cancer.gov)
NIH	Blood pressure.	Cardiovascular	Outcome	Health System	Sample subjects with systolic blood pressure at or over 140 mm Hg, or diastolic blood pressure at or over 90 mm Hg	An ever growing nationally representative sample (5000/year) of the US population who have volunteered to be administered a variety of standardized tests, including blood pressure, in a mobile exam center in a variety of locations around the country, ages 3 on up	Three pairs (systolic, diastolic) of blood pressure measurements are made under a strict protocol using a mercury sphygmomanometer, as part of a complete physical exam, including a physician's exam, blood pressure, and a variety of laboratory tests. Generally, the three measures are averaged to produce an estimate of a persons systolic or diastolic blood pressure.
NIH	Refractive error (eye does not focus light rays on the proper portion of the retina) without optical correction.	HEENT	Outcome	Health System	Those who need refractive correction (eyeglasses, contact lenses, refractive surgery) to achieve normal visual acuity	General population (by age group)	Autorefractor, Electronic Data Capture in National Survey
NIH	Visual impairment due to refractive error.	HEENT	Outcome	Health System	Those who have suboptimal visual acuity because they need, but do not have, refractive correction (eyeglasses, contact lenses, refractive surgery) to allow them to achieve normal visual acuity	Number of people with refractive error	Autorefractor, Electronic Data Capture in National Survey
NIH	Radiation therapy for stage III rectal cancer patients who underwent surgical resection.	Cancer	Process	Hospital OP			Hospital-based Cancer Registry
NIH	High blood cholesterol.	Cardiovascular	Outcome	Ambulatory	Patients with high blood cholesterol	General population (by sex, age group)	Paper or Electronic Data Forms
NIH	Hypertension.	Cardiovascular	Outcome	Ambulatory	Patients with high blood pressure	General population (by sex, age group)	Paper or Electronic Data Forms
NIH	On appropriate meds (beta-blocker, angiotension-converting enzyme [ACE] inhibitor, aspirin, etc.).	Cardiovascular	Process	Ambulatory	Patients with prior MI on appropriate meds	Patients with prior MI	Paper or Electronic Data Forms
NIH	Untreated high blood cholesterol.	Cardiovascular	Process	Ambulatory	Patients with diagnosis of high blood cholesterol and not on appropriate cholesterol lowering drugs	Patients with diagnosis of high blood cholesterol	Paper or Electronic Data Forms
NIH	Cholesterol.	Cardiovascular	Outcome	Health System	Sample subjects with total cholesterol of 200+ mg/dL (high cholesterol) or 240+ mg/dL (very high cholesterol); with HDL of less than 40 mg/dL; and/or with LDL (computed from triglycerides with the Friedewald equation) of 130+ mg/dL	A nationally representative sample (5000/year) of the U.S. population who have volunteered to be administered a variety of standardized tests, including blood pressure, in a mobile exam center in a variety of locations around the country, ages 6 on up	Laboratory analysis of a blood sample taken on the NHANES Mobile Exam Center (MEC), including total cholesterol, high density lipoprotein (HDL), and triglycerides. LDL is estimated from the triglycerides.
NIH	Awareness, treatment and control of hypertension.	Cardiovascular	Outcome	Health System	Aware: those hypertensives who have been told by their health professional that they have hypertension. Treated: those subjects who report taking medicines for hypertension. Controlled: those hypertensives who have normal blood pressure, that is, SBP (systolic blood pressure) < 140 AND DBP (diastolic blood pressure) < 90	Survey sample subjects identified as being hypertensive, in that they take medicines for hypertension, or their SBP is 140 mg Hg or more, or their DBP is 90 mg Hg or more	Sample survey subjects are administered a questionnaire containing a set of questions related to blood pressure: 1/ has a doctor or health professional ever told you you have high blood pressure, also known as hypertension; 2/ has your doctor or health professional told you at least two times that you had high blood pressure; 3/ did your doctor or health professional prescribe medicines to control your hypertension 4/ are you now taking medicines for hypertension. In addition, blood pressure was used to ascertain control status. Three pairs (systolic, diastolic) of blood pressure measurements are made under a strict protocol using a mercury sphygmomanometer, as part of a complete physical exam, including a physician's exam and a variety of laboratory tests. Generally the three measures are averaged to produce an estimate of a persons systolic or diastolic blood pressure.
NIH	Untreated hypertension.	Cardiovascular	Process	Ambulatory	Patients with diagnosis of high blood pressure and not on appropriate antihypertensive drugs	Patients with diagnosis of high blood pressure	Paper or Electronic Data Forms
NIH	Audit tool for inpatient medical record documentation by physicians.	Health Care Delivery	Process	Hospital IP			Paper Survey Forms
NIH	NIMH informed consent checklist.	Health Care Delivery	Process	Hospital IP			Paper Survey Forms
ONC	Percentage of physicians using an electronic health record (EHR) in their practice.	Health Care Delivery	Structure/Access	Ambulatory	Percent of physicians reported having a fully functional or basic electronic records system	U.S. physicians providing direct patient care exclusive of doctors of osteopathy, residents, and physicians working in federally owned health facilities	Survey
ONC	Percentage of hospitals using an electronic health record (EHR).	Health Care Delivery	Structure/Access	Hospital IP	Percent of hospitals reported having a fully functional or basic electronic records system	U.S. acute care hospitals	Survey
OPHS	Smoking cessation attempts by adult smokers.	Behavioral Health	Process	Health System	Number of adult smokers aged 18 years and older who stopped smoking for 1 day or longer because they were trying to quit smoking	Number of adult smokers aged 18 years and older trying to quit smoking	NHIS, CDC, NCHS
OPHS	Smoking cessation during pregnancy.	Behavioral Health	Outcome	Health System	Number of females aged 18 to 49 years smoking during the first trimester of their pregnancy who cease to smoke during pregnancy	Number of females aged 18 to 49 years smoking during the first trimester of their pregnancy	NHIS, CDC, NCHS

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Division	Measure Name	Condition	Domain	Care Setting	Numerator	Denominator	Data Source
OPHS	Tobacco use cessation attempts by adolescent smokers.	Behavioral Health	Process	Health System	Number of smokers in grades 9 through 12 who ever smoked at least one cigarette every day for 30 days trying to quit smoking	Number of smokers in grades 9 through 12 who ever smoked at least one cigarette every day for 30 days	YRBSS, CDC, NCCDPHP
OPHS	Proportion of children who are regularly exposed to tobacco smoke at home.	Behavioral Health	Outcome	Health System	Number of children aged 6 years and under where someone smoked inside the house at least 4 days per week	Number of children aged 6 years and under	NHIS, CDC, NCHS
OPHS	Proportion of nonsmokers exposed to environmental tobacco smoke.	Behavioral Health	Outcome	Health System	Number of nonsmokers aged 4 years and older exposed to environmental tobacco smoke	Number of nonsmokers aged 4 years and older	NHANES, CDC, NCHS
OPHS	Proportion of persons covered by indoor worksite policies that prohibit smoking.	Behavioral Health	Process	Health System	Number of persons exposed to indoor worksite smoking that are covered by indoor worksite policies that prohibit smoking	Number of persons exposed to indoor worksite smoking	Current Population Survey (CPS), U.S. Bureau of the Census and U.S. Bureau of Labor Statistics
OPHS	Proportion of adolescents and young adults who are exposed to tobacco advertising and promotion.	Behavioral Health	Process	Health System	Number of adolescents in grades 6 through 12 exposed to tobacco advertising and promotion	Number of adolescents in grades 6 through 12	National Youth Tobacco Survey (NYTS), American Legacy Foundation and CDC
OPHS	Disapproval of smoking by adolescents.	Behavioral Health	Outcome	Health System	Number of adolescents in 8th grade who disapprove smoking	Number of adolescents in 8th grade	Monitoring the Future Study (MTY), NIH, NIDA
OPHS	Disapproval of smoking by adolescents.	Behavioral Health	Outcome	Health System	Number of adolescents in 10th grade who disapprove smoking	Number of adolescents in 10th grade	Monitoring the Future Study (MTY), NIH, NIDA
OPHS	Disapproval of smoking by adolescents.	Behavioral Health	Outcome	Health System	Number of adolescents in 12th grade who disapprove smoking	Number of adolescents in 12th grade	Monitoring the Future Study (MTY), NIH, NIDA
OPHS	Proportion of persons who have dilated eye examination at appropriate intervals.	HEENT	Process	Health System	Number of persons aged 18 years and older who have a dilated eye examination at appropriate intervals	Number of persons 18 years and older	National Health Interview Survey, CDC, NCHS
OPHS	Proportion of preschool children aged 5 years and under who receive vision screening.	HEENT	Process	Health System	Number of preschool children aged 5 years and under who receive vision screening	Number of preschool children aged 5 years and under	National Health Interview Survey, CDC, NCHS
OPHS	Uncorrected visual impairment due to refractive errors.	HEENT	Outcome	Health System	Number of persons aged 12 years and older who have uncorrected visual impairment due to refractive errors	Number of persons aged 12 years and older	National Health and Nutrition Examination Survey, CDC, NCHS
OPHS	Blindness and visual impairment in children and adolescents.	HEENT	Outcome	Health System	Number of children and adolescents aged 17 years and under who are blind or visually impaired	Number of children and adolescents aged 17 years and under	National Health Interview survey, CDC, NCHS
OPHS	Visual impairment due to diabetic retinopathy.	Diabetes	Outcome	Health System	Number of persons aged 18 years and older with diabetes who have visual impairment due to diabetic retinopathy	Number of persons aged 18 years and older with diabetes	National Health Interview Survey, CDC, NCHS
OPHS	Visual impairment due to glaucoma.	HEENT	Outcome	Health System	Number of persons aged 45 years and older who have visual impairment due to glaucoma	Number of persons aged 45 years and older	National Health Interview Survey, CDC, NCHS
OPHS	Visual impairment due to cataract.	HEENT	Outcome	Health System	Number of persons aged 65 years and older who have visual impairment due to cataract	Number of persons aged 65 years and older	National Health Interview Survey, CDC, NCHS
OPHS	Occupational eye injury.	HEENT	Outcome	Health System	Number of full-time workers with occupational eye injury	Number of full-time workers	Survey of Occupational Injuries and Illnesses (OSOI), U.S. Department of Labor, Bureau of Labor Statistics; National Electronic Injury Surveillance System (NEISS), CPSC and CDC, NIOSH
OPHS	Use of personal protective eyewear in recreational activities and hazardous situations around home.	HEENT	Process	Health System	Number of persons aged 6 years and older who use personal protective eyewear in recreational activities and hazardous situations around the home	Number of persons aged 6 years and older involved in recreational activities and hazardous situations around the home	National Health Interview Survey, CDC, NCHS
OPHS	Vision rehabilitation.	HEENT	Process	Health System	Number of visually impaired persons aged 18 years and older who use vision rehabilitation services	Number of visually impaired persons aged 18 years and older	National Health Interview Survey, CDC, NCHS
OPHS	Proportion of newborns who are screened for hearing loss by age 1 month, audiologic evaluation by age 3 months, and enrollment in appropriate intervention services by age 6 months.	HEENT	Process	Health System	Number of newborns who are screened for hearing loss by age 1 month, have audiologic evaluation by age 3 months, and are enrolled in appropriate intervention services by age 6 months	Number of newborns alive at ages 1 month, 3 months, and 6 months	State-based Early Hearing Detection and Intervention (EHDI) Program Network, CDC and/or specific State data
OPHS	Otitis media in children and adolescents.	Infectious Diseases	Outcome	Health System	Number of children and adolescents under age 18 years who have otitis media	Number of children and adolescents under age 18 years	National Ambulatory Medical Care Survey (NAMCS), CDC, NCHS; National Hospital Ambulatory Medical Care Survey (NHAMCS), CDC, NCHS
OPHS	Proportion of persons with hearing impairments who have ever used a hearing aid or assistive listening devices or who have cochlear implants.	HEENT	Outcome	Health System	Number of adults aged 20 to 69 years with hearing loss who have ever used a hearing aid (a), number of persons who are deaf or very hard of hearing who have new cochlear implants (b), number of adults aged 70 years and older with hearing loss who have ever used a hearing aid (c), and number of adults aged 70 years and older with hearing loss who use assistive listening devices (d)	Number of adults aged 20 to 69 years with hearing loss (a), number of persons who are deaf or very hard of hearing (b), number of adults aged 70 years and older with hearing loss (c), and number of adults aged 70 years and older with hearing loss (d)	NHIS, CDC, NCHS; NHANES, CDC, NCHS; Healthcare Cost and Utilization Project (HCUP), AHRQ
OPHS	Proportion of persons who have had a hearing examination on schedule.	HEENT	Process	Health System	Number of persons aged 20 to 69 years who have had a hearing examination in the past 5 years (a), number of adults aged 70 years and older who have had a hearing examination in the past 5 years (b), and number of adolescents aged 12 to 19 years who have had a hearing examination in the past 5 years (c) respectively	Number of persons aged 20 to 69 years (a), number of adults aged 70 years and older (b), and number of adolescents aged 12 to 19 years (c) respectively	NHANES, CDC, NCHS
OPHS	Use of ear protection devices.	HEENT	Process	Health System	Number of adults aged 20 to 69 years who have ever used hearing protection devices when exposed to loud sounds or noise (a), and number of adolescents aged 12 to 19 years who have ever used hearing protection devices when exposed to loud sounds or noise (b)	Number of adults aged 20 to 69 years (a), and number of adolescents aged 12 to 19 years (b)	NHIS, CDC, NCHS
SAMHSA	CMHS Block Grant - Increase number of people served by the public mental health system.	Mental Health	Process	Health System			Uniform Reporting System <a href="http://mentalhealth.samhsa.gov/cmhs/MentalHealthStatistics/UniformReport.asp">http://mentalhealth.samhsa.gov/cmhs/MentalHealthStatistics/UniformReport.asp</a>

AHRQ: Agency for Healthcare Research and Quality  
AoA: Administration on Aging  
CDC: Center for Disease Control and Prevention  
CMS: Centers for Medicare and Medicaid Services

HRSA: Health Resources and Services Administration  
IHS: Indian Health Service  
NH: National Institute of Health

ONC: Office of the National Coordinator  
OPHS: Office of Public Health and Science  
SAMHSA: Substance Abuse and Mental Health Administration