Purpose of the Project

Healthcare-associated infections (HAIs) remain a significant public health issue in the United States. In hospitals alone, the annual incidence of HAIs is estimated at 1.7 million infections, with 99,000 associated deaths. Urinary tract infections (UTIs), surgical site infections (SSIs), pneumonia, and bloodstream infections account for 83 percent of all HAIs. The annual estimated direct cost of these infections to the healthcare system is $4.5 billion.

Preventing HAIs has become a national priority for public health and patient safety. Many recent initiatives are designed to accelerate progress in reducing HAIs. In October 2008, Medicare reduced reimbursement to facilities not collecting data on select HAIs including catheter-associated urinary tract infection (CAUTI), central line-associated bloodstream infection (CLABSI), and SSIs. The following year, the American Recovery and Reinvestment Act of 2009 authorized $50 million in funding for states to engage in HAI planning and other activities supporting the Department of Health and Human Services (HHS) Action Plan to Prevent Healthcare-Associated Infections.

Recent policy extended these payment reductions to Medicaid providers in 2011. To date, 27 states are now requiring public reporting of certain HAIs. The first-ever National Quality Strategy, released in March 2011, has safer care marked as one of its primary aims. Beginning in 2013, hospitals’ annual Medicare payment updates will be tied to submission of infection data, including CLABSIs and SSIs. The NQF inventory of endorsed measures includes more than 100 measures related to patient safety. Several of these measures focus specifically on HAIs, addressing UTIs, SSIs, pneumonia, and bloodstream infections. Similarly, the measures recommended for endorsement in this report include updated versions of previously endorsed HAI measures.

Ultimately, the endorsement of these national standards for HAI measurement will provide states and other organizations with valuable resources for implementing comparable standards and will give consumers access to uniformly reported data that are reliable and useful for decision-making.

What Was Endorsed

Under this initial phase of NQF’s most recent Patient Safety Measures project, NQF endorsed four HAI measures as voluntary consensus standards suitable for accountability and quality improvement. The measures include updated versions of previously-endorsed HAI measures. These measures were submitted by the Centers for Disease Control and Prevention (CDC) and the American College of Surgeons (ACS), and are listed below:

0753: National Healthcare Safety Network (NHSN) Central line-associated bloodstream infection (CLABSI) outcome measure (CDC).

Description: Standardized Infection Ratio (SIR) of healthcare-associated, central line-associated bloodstream infections (CLABSI) in Intensive Care Units (ICUs), Specialty Care Areas (SCAs), and other inpatient locations. This measure replaces NQF-endorsed measure #0139 (Central line catheter-associated bloodstream infections rate for ICU and high-risk nursery (HRN) patients).

0752: American College of Surgeons – Centers for Disease Control and Prevention (ACS-CDC) Harmonized Procedure Specific Surgical Site Infection (SSI) Outcome Measure.

Description: Prototype measure for the facility-adjusted Standardized Infection Ratio (SIR) of deep incisional and organ/space Surgical Site Infections.
Infections (SSI) at the primary incision site among adult patients aged 18 years or older as reported through the ACS National Surgical Quality Improvement Program (ACS-NSQIP) or CDC National Health and Safety Network (NHSN). This prototype measure is intended for time-limited use, and replaces NQF-endorsed measure #0299 (Surgical Site Infection Rate).


Description: Standardized Infection Ratio (SIR) of healthcare-associated, catheter-associated urinary tract infections (CAUTI) in Intensive Care Units (ICUs), Specialty Care Areas (SCAs), and other inpatient locations. This measure replaces NQF-endorsed measure #0138 (Urinary catheter-associated urinary tract infection for intensive care unit (ICU) patients).

0751: Risk adjusted urinary tract infection outcome measure (ACS).

Description: This is a risk-adjusted, case-mix adjusted urinary tract infection outcome measure of adults 18+ years after surgical procedure.

Table 1: Summary of Patient Safety Measures Project

| Measures submitted for consideration | 8 |
| Measures withdrawn by the developer for more testing and further refinement | 4 |
| Measures recommended for endorsement | 4 |
| Measures not recommended for endorsement | 0 |

The Need these Measures Fill

• The CDC’s CLABSI and CAUTI outcome measures represent a refresh of previously endorsed measures, including an expansion of care settings. They also have been refined to include a standardized infection ratio.

• The ACS UTI measure is a new standard for tracking postoperative urinary tract infections.

• The ACS-CDC Harmonized SSI measure is the product of an effort by the ACS and the CDC to combine elements of two SSI measures which were originally submitted separately by those organizations. This singular measure is now applicable to and comparable across surgeons and hospitals, thereby eliminating the confusion that had existed over reporting of similar but not comparable measures.

Potential Use

• The CDC’s CLABSI and CAUTI outcome measures are recommended for use within intensive care units, specialty care areas, and other inpatient locations. Both measures are recommended for the entire patient population.

• The ACS UTI measure includes surgery patients in both inpatient and outpatient settings. The measure is recommended for adults 18 years and older.

• The ACS-CDC Harmonized SSI measure is recommended for adults 18 years and older. It is intended for use in inpatient hospitals, and, as a “prototype” measure, applies to only two specific surgical procedures. The ACS and CDC have indicated that they will work to include additional procedures as their harmonization efforts continue.

Project Perspectives

A key takeaway from this project is its focus on measure harmonization as a means of creating a best-in-class set of safety measures. In this project, two similar and competing measures from the CDC and the ACS were reviewed; the CDC measure has been in use since 2005 and the ACS measure since 2004 in the private sector. As a result of NQF member and public comments and requests by the Steering Committee, the developers worked with NQF support to combine two competing measures into one metric.

The harmonization process, while time-consuming, creates a clear benefit for patients, payers, providers, and others. In this case, the newly-harmonized measure is now applicable to and comparable across surgeons and hospitals, thereby eliminating reporting burden and confusion resulting from the use of similar but not comparable measures. Stewardship of the SSI measure going forward will be jointly maintained by CDC and ACS — a public-private collaboration to be celebrated.