

National Targets and Metrics

Monitoring Progress Toward Action Plan Goals: A Mid-Term Assessment

Background

The U.S. Department of Health and Human Services (HHS) Steering Committee for the Prevention of Healthcare-Associated Infections hosted the meeting “Progress Toward Eliminating Healthcare-Associated Infections” in Arlington, Virginia, in late September 2010. The meeting’s purpose was to review progress toward achieving the nine 5-year goals or targets in the HHS Action Plan to Prevent Healthcare-Associated Infections for reducing the incidence of specific healthcare-associated infections and increasing adherence to specific sets of recommended prevention practices.

The opening plenary session included a review of current data on the status of each of the nine goals. A summary of the progress through September 2010 shows:

- **Marked improvement in infections rates for central line-associated bloodstream infections, healthcare-associated invasive methicillin-resistant *Staphylococcus aureus* (MRSA) infections, and surgical site infections,** constituting timely progress toward the 5-year targets;
- **Improvement in compliance with all five Surgical Care Improvement Project** process measures to reduce the risk of surgical site infections;
- A slight **increase in the rate of hospitalizations with *Clostridium difficile*.** More work is needed to reduce the rate to meet the 2013 goal.

For other measures, such as catheter-associated urinary tract infections, 2009 or 2009-2010 are baseline years, and data are still being collected and/or analyzed.

Table 1: Summary of Progress Toward the Nine National Targets for Elimination of Healthcare-Associated Infections, 2010

Metric	Source	National 5-year Prevention Target	On Track to Meet 2013 Targets?
Bloodstream infections	NHSN	50% reduction	Yes
Adherence to central-line insertion practices	NHSN	100% adherence	Data not yet available*
<i>Clostridium difficile</i> (hospitalizations)	HCUP	30% reduction	No
<i>Clostridium difficile</i> infections	NHSN	30% reduction	Data not yet available*

Urinary tract infections	NHSN	25% reduction	Data not yet available*
MRSA invasive infections (population)	EIP	50% reduction	Yes
MRSA bacteremia (hospital)	NHSN	25% reduction	Data not yet available*
Surgical site infections	NHSN	25% reduction	Yes
Surgical Care Improvement Project Measures	SCIP	95% adherence	Yes

* 2009 or 2009-2010 is the baseline period.

EIP is the CDC's Emerging Infections Program; HCCUP is AHRQ's Healthcare Cost and Utilization Project; NHSN is the CDC's National Healthcare Safety Network; SCIP is surgical care improvement project.

[Summary of the Progress](#)

The information below offers greater detail regarding the current (fall 2010) progress toward the nine goals. It includes the baseline measure (as available), the current assessment (as available), links to more information about the data sources, and additional notes on the measures and data.

[1. Central-line associated bloodstream infections \(CLABSI\)](#)

2013 National Prevention Target: 50% reduction in CLABSI in intensive care unit (ICU) and ward-located patients

2009 Assessment: 18% reduction

Data source: [CDC's National Healthcare Safety Network](#)

2013 Projection: At the current rate of reduction, the 2013 goal will be surpassed for a 63% reduction in infections.

The 2009 data reflect reports from over 1,600 facilities in 49 states and the District of Columbia. The number of reporting facilities is expected to increase to approximately 4,000 by early 2011. Infection rates were lowest in medical/surgical wards, with 1.2 infections per 1,000 central-line days reported, and highest in intensive care units at major teaching hospitals (2.6 infections per 1,000 central-line days). A total of 26 states had infection rates indicating a statistically significant improvement from baseline. Neonatal ICUs and wards are not included in these data. For additional information on what goes here?

[2. Adherence to central-line insertion practices \(CLIP\)](#)

2013 National Prevention Target: 100% adherence

2009 Assessment: 2009 is the baseline year; the baseline adherence rate will be available September 2011

Baseline Measurement: 92% adherence

Data source: [CDC's National Healthcare Safety Network](#)

Central-line insertion practices, or CLIP, are a package, or “bundle”, of evidence-based practices shown to reduce bloodstream infections when practiced together at every insertion. The practices include 1) proper hand washing before insertion, 2) appropriate skin preparation with a recommended antiseptic prior to insertion, 3) ensuring the antiseptic was fully dry before insertion, and 4) use of maximal sterile barriers during insertion, to include gloves, gown, cap, mask, and a full body drape on the patient. It should be noted that 95% of the baseline data are from California facilities.

3. *Clostridium difficile* (hospitalizations)

2013 National Prevention Target: 30% reduction in hospitalizations with *C. difficile*

2009 Assessment: 1.1% increase from baseline

2010 Assessment Projection*: 6.8% increase from baseline

Baseline Measurement: 8.8 hospitalizations with *C. difficile* per 1,000 discharges (2008)

2013 Projection: The 2013 target is unlikely to be met on schedule.

Data source: [AHRQ’s Healthcare Cost and Utilization Project](#)

*The 2010 projections were generated using 2010 inpatient data from states reporting early and time-series data forecasting software.

4. *Clostridium difficile* Infections

2013 National Prevention Target: 30% reduction in facility-wide healthcare facility-onset *C. difficile*

Baseline Measurement: 2009-2010 is the baseline period.

Data source: [CDC’s National Healthcare Safety Network](#)

5. Catheter-associated urinary tract infections (CAUTI)

2013 National Prevention Target: 25% reduction in CAUTI in ICU and ward-located patients

Baseline Measurement: 2009 was the baseline period and data is not yet available

Data source: [CDC’s National Healthcare Safety Network](#)

The data source changed its surveillance definition for CAUTI in January 2009, so the five year period has been extended from 2013 to 2014.

6. MRSA invasive infections (population)

2013 National Prevention Target: 50% reduction in incidence of healthcare-associated invasive MRSA infections

2010 Assessment: 13.4% reduction

Baseline Measurement: 26.24 infections per 100,000 persons (2007-2008)

Data source: [CDC’s Emerging Infections Program Active Bacterial Core Surveillance](#)

2013 Projection: At the current rate of reduction, the 2013 goal will be achieved on schedule.

7. MRSA bacteremia (hospital)

2013 National Prevention Target: 25% reduction in facility-wide healthcare facility-onset MRSA

Baseline Measurement: 2009-2010 is baseline period and data is not yet available

Data source: [CDC's National Healthcare Safety Network](#)

Baseline data are nationally representative. Because CDC changed its data collection procedures in January 2010, the assessment period has been extended to December 2015 so that data are uniform for the entire period.

8. Surgical site infections (SSI)

2013 National Prevention Target: 25% reduction in admission and readmission SSI

2009 Assessment: 5% reduction from baseline

Data source: [CDC's National Healthcare Safety Network](#)

2013 Projection: To meet the 2013 target, progress in reducing SSI must be accelerated. At the current rate of improvement, only a 22% reduction in infections will be realized by 2013.

With a total of 44 states and the District of Columbia reporting, 24% of states reporting demonstrated a statistically significant reduction in their SSI rates. The procedures most commonly associated with SSIs are colon surgery, coronary artery bypass grafts, and knee prosthesis.

9. Surgical Care Improvement Project Measures (SCIP)

2013 National Prevention Target: 95% adherence to process measures to prevent SSI.

The measures include:

- SCIP Infection Measure 1: Antibiotics within 1 hour before incision or within 2 hours if vancomycin or quinolone is used;
- SCIP Infection Measure 2: Received prophylactic antibiotics consistent with recommendations;
- SCIP Infection Measure 3: Prophylactic antibiotics discontinued within 24 hours of surgery end time or 48 hours for cardiac surgery;
- SCIP Infection Measure 4: Controlled 6 am postoperative serum glucose for cardiac surgery patients;
- SCIP Infection Measure 6: Appropriate hair removal for surgery patients.

Baseline Measurement: 2006, 2007, 2008*

- SCIP Inf 1 – 83%, 87%, 91%
- SCIP Inf 2 – n/a, 92%, 95%
- SCIP Inf 3 – 74%, 80%, 87%
- SCIP Inf 4 – n/a, n/a, 89%
- SCIP Inf 6 – n/a, n/a, 97%

*SCIP Inf 4 and Inf 6 were not required for reporting until 1Q 2008. The baseline data is based on approximately 3,650 hospitals reporting each quarter since mid-2006.

2009 Assessment:

- SCIP Inf 1 – 96%
- SCIP Inf 2 – 98%
- SCIP Inf 3 – 92%
- SCIP Inf 4 – 92%
- SCIP Inf 6 – 99%

Data source: CMS [Hospital Compare](#)

2013 Projection: On track to meet target on schedule

Conclusion

Timely progress has been made toward most targets for which associated data are available. Although this progress is promising, continued efforts are needed to achieve the goals in the Action Plan. In the case of hospitalizations with *Clostridium difficile*, efforts must be enhanced and accelerated to achieve the target.

Additional Information

Please view background on the [Action Plan targets and metrics](#) and on understanding [standardized infection ratios](#). *The CDC's First State-Specific Healthcare-Associated Infections Summary Data Report* gives national and state data on central line-associated bloodstream infections. Nationally, the report demonstrates progress toward the Action Plan goals. On the state level, it will serve as baseline data. As additional reports are published, results will be compared against these data to determine the impact of prevention interventions. This information can help state and federal officials prioritize future surveillance, research, and prevention activities.