"National Action Plan to Prevent Healthcare-Associated Infections: Roadmap to Elimination" – October 2011
Centers for Disease Control and Prevention (CDC), Division of Healthcare Quality Promotion (DHQP)

Central Line-Associated Bloodstream Infection (CLABSI)

- **Data source:** CDC's National Healthcare Safety Network (NHSN), Device-Associated Module
- **Definition:** http://www.cdc.gov/nhsn/PDFs/pscManual/4PSC_CLABScurrent.pdf
- **5-Year (2013) National Prevention Target:** 50% reduction in CLABSI in intensive care unit (ICU) and ward-located patients [i.e., national (Standardized Infection Ratio) SIR for CLABSI = 0.50]
- **Metric:** SIR
  - The SIR compares the observed number of healthcare-associated infections (HAIs) in the U.S. during a reporting period with the baseline U.S. experience
  - SIR < 1.00 means fewer HAIs observed during the reporting period than predicted from baseline data; SIR > 1.00 means more HAIs observed than predicted
  - Risk adjustment: this metric adjusts for a variety of predictors of CLABSI
- **Baseline period:** 2006-2008
- **Baseline data:** CLABSI data reported to NHSN during 2006-2008 from all acute care hospitals [non-neonatal ICU (NICU) ICUs and wards only]
  - 1,385 facilities reporting; 3,972 locations reporting; 62% ICU; 7,434,389 central line-days reported
  - 48 states reporting
  - 13 states had legislative mandates to report CLABSI data to NHSN that were in place at some point during 2006-2008
- **2009 data:** CLABSI data reported to NHSN during 2009 from all acute care hospitals (non-NICU ICUs and wards only)
  - 1,603 facilities reporting; 4,872 locations reporting; 61.7% ICU; 6,163,376 central line-days reported
  - 49 states and Washington, D.C. reporting (43 states and Washington, D.C. with >1 facility reporting)
  - 17 states had legislative mandates to report CLABSI data to NHSN that were in place during 2009
- **2010 data:** CLABSI data reported to NHSN during 2010 from all acute care hospitals (non-NICU ICUs and wards only)
  - 2,256 facilities reporting; 7,156 locations reporting; 51.9% ICU; 8,230,869 central line-days reported
  - 49 states and Washington, D.C. reporting (all with >1 facility reporting)
  - 21 states had legislative mandates to report CLABSI data to NHSN that were in place during 2010
  - Among critical care patients, SIR = 7,079/10,922 = 0.65; among non-critical care patients, SIR = 3,318/4,461 = 0.74

Measure	Baseline (2006-2008)	2009	2010
National SIR	N/A	**0.82** = 9,355 / 11,376 CLABSIs	**0.67** = 9,716 / 14,521 CLABSIs
National % Reduction	N/A	18%	33%

Metric Definitions

A primary bloodstream infection (BSI) in a patient in which a central line or umbilical catheter was in place at the time of, or within 48 hours prior to the onset of the event.
Primary bloodstream infection (BSI): Laboratory-confirmed bloodstream infection (LCBI) that is not secondary to an infection meeting CDC/NHSN criteria at another body site.
Central line-associated: A central line or umbilical catheter was in place at the time of, or within 48 hours before, onset of the event. There is no minimum period of time that the central line must be in place in order for the BSI to be considered central line-associated.
Central line: An intravascular catheter that terminates at or close to the heart or in one of the great vessels which is used for infusion, withdrawal of blood, or hemodynamic monitoring. The following are considered great vessels for the purpose of reporting central-line BSI and counting central-line days in the NHSN system: Aorta, pulmonary artery, superior vena cava, inferior vena cava, brachiocephalic veins, internal jugular veins, subclavian veins, external iliac veins, common iliac veins, femoral veins, and in neonates, the umbilical artery/vein. NOTES: Neither the insertion site nor the type of device may be used to determine if a line qualifies as a central line. The device must terminate in one of these vessels or in or near the heart to qualify as a central line. An introducer is considered an intravascular catheter. Pacemaker wires and other

nonlumened devices inserted into central blood vessels or the heart are not considered central lines, because fluids are not infused, pushed, nor withdrawn through such devices.

Infusion: The introduction of a solution through a blood vessel via a catheter lumen. This may include continuous infusions such as nutritional fluids or medications, or it may include intermittent infusions such as flushes or IV antimicrobial administration, or blood, in the case of transfusion or hemodialysis.

Umbilical catheter: A central vascular device inserted through the umbilical artery or vein in a neonate.

Temporary central line: A non-tunneled catheter.

Permanent central line: Includes tunneled catheters, including certain dialysis catheters