

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:** Standardized Infection Ratio (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
 - Risk adjustment: this metric adjusts for a variety of predictors of CLABSI, including central line utilization, location type, bedsize, and teaching status
 - SIR < 1.0 means fewer HAIs observed during the reporting period than predicted from baseline data; SIR > 1.0 means more HAIs observed than predicted

- **Metric Definitions:**
Infections in patients located in intensive care units and ward locations are eligible for inclusion in the metric. CLABSIs are defined as primary bloodstream infections (BSIs) in which 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. Primary BSIs are defined as laboratory-confirmed bloodstream infections that are not secondary to an infection meeting NHSN criteria at another body site. Central lines are defined as intravascular catheters that terminate at or close to the heart or in one of the great vessels which is used for infusion, withdrawal of blood, or hemodynamic monitoring.

- **Baseline data (2006-08):** CLABSI data reported to NHSN during 2006-2008 from all acute care hospitals (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 at some point during 2006-2008
- **2010 data:** CLABSI data reported to NHSN during 2010 from all inpatient locations in acute care hospitals (excluding long term acute care facilities and rehabilitation facilities)
 - 2,242 facilities reporting; 8,430 locations reporting (45 % ICU); 10,071,508 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 during 2010
 - Among adult and pediatric critical care patients, SIR = 7,238/11,059 = 0.65; among non-critical care patients, SIR = 4,285/6,027 = 0.71
- **2011 data:** CLABSI data reported to NHSN during 2011 from all inpatient locations in acute care hospitals(excluding long term acute care facilities and rehabilitation facilities)
 - 3,472 facilities reporting; 12,122 locations reporting (47% ICU); 16,209,300 central line-days reported
 - 50 states, Washington, D.C, and Puerto Rico reporting (all with >1 facility reporting)
 - 25 states had legislative mandates to report CLABSI data to NHSN during 2011
 - Among adult and pediatric critical care patients, SIR = 10,134/18,209 = 0.56; among non-critical care patients, SIR = 5,781/8,998 = 0.64

Measure	Baseline (2006-2008)	2010*		2011
		As of 10/2011	As of 10/2012	
National SIR	N/A	0.67 = 9,716 / 14,521 CLABSIs	0.68 = 13,812 / 20,185 CLABSIs	0.59 = 18,113 / 30,615 CLABSIs
National % reduction	N/A	33%	32%	41%

* Observed and predicted CLABSI counts for 2010 differ slightly from previous updates due to recalculation of SIR with long term acute care and rehabilitation facilities excluded.