Eliminating CLABSI A National Patient Safety Imperative

A Progress Report on the National On the CUSP: Stop BSI Project

A Project of:

Health Research & Educational Trust Johns Hopkins University Quality and Safety Research Group Michigan Health & Hospital Association Keystone Center for Patient Safety & Quality

Disclaimer: This report was developed with data collected and analyzed under contract with the Agency for Healthcare Research and Quality (AHRQ). The information and opinions expressed herein reflect solely the position of the authors. Nothing herein should be construed to indicate AHRQ support or endorsement of its contents.

AHRQ Publication No: 11-0037-EF April 2011

CONTENTS

EXECUTIVE SUMMARY	3
Background	3
Progress Update	3
Project Impact	3
Conclusions	3
INTRODUCTION AND OBJECTIVE	4
METHODS	5
Data Source	5
Participation Measures	6
CLABSI Rates	6
RESULTS	7
Project Participation	7
Project Impact	12
AREAS FOR CONTINUED IMPROVEMENT	15
CONCLUSION	16
APPENDIX A: PARTICIPATING HOSPITALS, BY STATE	17

TABLES

Table 1: Hospital and Team Participation by State	8
Table 2: Average CLABSI Rates	13
Table 3: Average CLABSI Rates	14

FIGURES

Figure 1: Participation by State	.7
Figure 2: Percentage of Participating Hospitals by Bed Size1	10
Figure 3: Percentage of Participating Hospitals by Type1	11
Figure 4: Percentage of Participation by Unit Type	12
Figure 5: CLABSI Rates Over Time	14

EXECUTIVE SUMMARY

Background

Healthcare-associated infections (HAIs) are infections that people acquire while they are receiving treatment for another condition in a health care setting. They are costly, deadly, and largely preventable. The U.S. Department of Health and Human Services' Action Plan to Prevent Healthcare-Associated Infections is focusing attention on the need to dramatically reduce these infections; a recent CDC Report suggests that considerable progress is being made towards this goal. As part of this initiative, the Agency for Healthcare Research and Quality (AHRQ) is funding a national effort to prevent central line-associated bloodstream infections (CLABSIs) in U.S. hospitals. The *On the CUSP: Stop BSI* project is led by a unique partnership. This partnership consists of the Health Research & Educational Trust, the nonprofit research and educational affiliate of the American Hospital Association; the Johns Hopkins University Quality and Safety Research Group, which developed an innovative approach for improving patient safety; and the Michigan Health & Hospital Association's Keystone Center for Patient Safety & Quality, which used this approach to dramatically reduce CLABSIs in Michigan. This report summarizes progress made in the first 2 years of the *On the CUSP: Stop BSI* project.

Progress Update

On the CUSP: Stop BSI requires that participating States have a lead organization that works with hospitals across their State to implement the clinical and cultural changes needed to reduce CLABSIs. Thus far, 45 State hospital associations and one other umbrella group have committed to leading the project in their States. Collectively, these groups have recruited more than 700 hospitals and 1,100 hospital teams to participate in the project. Twenty-two States began the project in 2009, 14 States and the District of Columbia began during 2010, and at least 8 States plus Puerto Rico will begin the effort in early 2011.

Project Impact

We examined the impact of the project on patients from the adult ICUs that began participating in the project during 2009. We focused on ICUs because data from these areas are the most valid. Compared to a baseline CLABSI rate of 1.8 infections per 1,000 central line days in these units, after 12–15 months of participation in the project, CLABSI rates have decreased to 1.17 infections per 1,000 central line days, a relative reduction of 35 percent. Progress for more recent participants is also being carefully evaluated.

Conclusions

Preliminary progress toward achieving the project's stated goals is encouraging, but substantial work remains. Key conclusions thus far include:

- Adult ICUs included in this report, drawn from 22 States and more than 350 hospitals, have reduced their CLABSI rates by an average of 35 percent.
- At baseline, many of these ICUs had CLABSI rates below the national mean and were still able to reduce their rates.

- While 20 percent of hospitals in the United States are participating in the project, many more hospitals and hospital units that insert or maintain central lines would benefit from involvement in the project.
- The project demonstrates that even among hospitals that have already achieved low CLABSI rates, further improvement is possible and achievable.

INTRODUCTION AND OBJECTIVE

Healthcare-associated infections (HAIs) are largely preventable, and their occurrence can be dramatically reduced, to save lives and excess costs. The Department of Health and Human Services (HHS) launched an Action Plan to Prevent Healthcare-Associated Infections to improve patient safety and health care quality by providing a roadmap for preventing HAIs. A recent CDC report suggests that considerable progress is being made in preventing central line associated blood stream infections, but that further improvement is still needed.¹ To further the effort to prevent HAIs, two large-scale initiatives have been funded and launched by the Agency for Healthcare Research and Quality (AHRQ). The goal of these initiatives is to prevent both central line-associated bloodstream infections (CLABSI) and catheter-associated urinary tract infections (CAUTI). Both initiatives use a combination of evidence-based best practices to reduce the risk of infections and the Comprehensive Unit-Based Safety Program (CUSP) to improve the culture of patient safety. Researchers at the Johns Hopkins University Quality and Safety Research Group (QSRG) initially developed CUSP. CUSP was subsequently implemented in collaboration with the Michigan Health & Hospital Association's Keystone Center for Patient Safety & Quality (MHA Keystone Center) and hospitals across Michigan. This implementation resulted in a dramatic and sustained decrease in CLABSI rates in that State.²

AHRQ has awarded contracts totaling \$18 million to the Health Research & Educational Trust (HRET), the nonprofit research and educational affiliate of the American Hospital Association (AHA), to lead the national initiative to reduce CLABSI rates. HRET is partnering with the QSRG at Johns Hopkins University and the MHA Keystone Center to lead this effort. A recent expansion of HRET's contract now provides limited resources to the State hospital associations and other organizations leading this effort at the State level. Prior to this, these organizations funded their support of this project with their own resources or funds from other sources. The national *On the CUSP: Stop BSI* project represents the first federally funded national effort with a clearly stated outcome goal: the reduction of CLABSI rates to less than 1 per 1,000 central line

¹ Vital Signs: Central Line-Associated Blood Stream Infections—United States, 2001, 2008, and 2009. Morbidity and Mortality Weekly Report. Atlanta, GA: Centers for Disease Control and Prevention; 2011 Mar 1;60. Available at: <u>http://www.cdc.gov/mmwr/pdf/wk/mm60e0301.pdf</u>.

² <u>Pronovost P, Needham D, Berenholtz S, et al. An intervention to decrease catheter-related bloodstream infections in the ICU. N Engl J Med 2006 Dec 28:355(26):2725–2732.</u>

days across all U.S. hospitals participating in the project. If this goal is achieved, the project will substantially reduce deaths and unnecessary costs associated with CLABSIS.

Since the project's inception in October 2008, lead organizations (primarily State hospital associations) have been recruited in 44 States. As of November 2010, 38 of these States have commenced participation in the *On the CUSP: Stop BSI* initiative; 22 of those States have hospitals that have been participating in the project and submitting data for over one year. Given the significance of AHRQ's investment in this project and the role that it plays in achieving HHS's HAI reduction goals, there is value in assessing the project to this point, with three specific goals in mind. A first goal is to examine progress made in recruiting U.S. hospitals to participate in the project. A second goal is to evaluate the impact of the project on CLABSI rates in these participating hospitals. Finally, this report seeks to identify areas where improvement must continue to occur for the project to achieve its stated goals.

METHODS

Data Source

This report uses data stored in the *On the CUSP: Stop BSI* National Database created and maintained by the MHA Keystone Center in Lansing, Michigan. Each month, the number of central line days and the number of CLABSIs observed in the participating hospital units are submitted into the national database. Some hospitals submit infection rate data directly into this database, and others contribute data through the Centers for Disease Control and Prevention's (CDC) National Healthcare Safety Network (NHSN). All hospitals use CDC definitions to count central line days and determine the number of CLABSIs observed in participating units.

All analyses except the list of participating hospitals in Appendix A are based on data drawn from the National Database on October 7, 2010. Data from participating hospitals in Tennessee were added to the National Database in November 2010, so results from these hospitals will be included in the next project update. Because we want to recognize as many of the hospitals that have chosen to participate as possible, the hospital list in Appendix A reflects all participants confirmed as of January 2011.

For our assessments of project impact, data were limited to teams representing adult ICUs that began participating in the project in 2009. These teams were drawn from eight States that began the project in May 2009 (cohort 1) and an additional 14 States that began the project in September 2009 (cohort 2). We limited our results to adult ICUs because of challenges in counting central line days outside the ICU setting. As such, CLABSI data for ICUs are more valid than CLABSI rates outside the ICU. Results are currently limited to the first two cohorts because

they have at least four quarters of data that can be used to assess CLABSI rate changes over time.

Participation Measures

Data from the *On the CUSP: Stop BSI* National Database were linked to information in the 2008 AHA Annual Survey of hospitals based on hospital name, location, and AHA hospital identifier (when available and accurate). All hospitals that could be linked were classified by size using the "total beds staffed" variable from the AHA Annual Survey. Hospitals were also classified based on whether they were critical access hospitals, rural referral hospitals, members of a health care system, located in one of the 100 largest cities in the United States, or members of the Council of Teaching Hospitals (COTH). Because hospitals in North Carolina and Ohio use blinded hospital identifiers, hospital characteristics were not available for those hospitals or for an additional nine hospitals that could not be matched to data in the AHA Annual Survey.

CLABSI Rates

CLABSI rates for the two cohorts were calculated for a baseline time period of up to 12 months and for each subsequent time period. At the time of the production of this report each cohort had at least four full quarters of data. The time periods are shown below:

Time Period (Non-Calendar Quarters)	Cohort 1	Cohort 2
Baseline	May 1, 2008 to Apr. 30, 2009	Sept. 1, 2008 to Aug. 31, 2009
Time period 1	May 1, 2009 to July 31, 2009	Sept. 1, 2009 to Nov. 30, 2009
Time period 2	Aug. 1, 2009 to Oct. 31, 2009	Dec. 1, 2009 to Feb. 28, 2010
Time period 3	Nov. 1, 2009 to Jan. 31, 2010	Mar. 1, 2010 to May 31, 2010
Time period 4	Feb. 1, 2010 to July 31, 2010	June 1, 2010 to Sept. 31, 2010

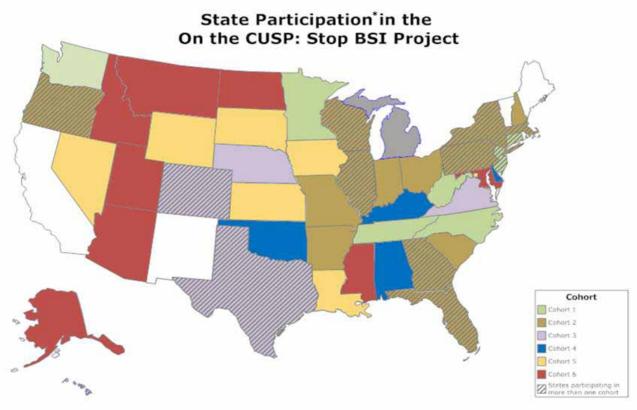
Central line days were calculated as the sum of all reported central line days during the reporting period, while the number of CLABSIs equaled the sum total of all CLABSIs reported during the period. The CLABSI rate equals the ratio of CLABSIs to central line days multiplied by 1,000 (to create a rate per 1,000 central line days). If a team reported zero central line days, the CLABSI rate for that period was set to "missing." However, the team still was classified as having reported CLABSI data for that period.

RESULTS

Project Participation

<u>State Participation</u>. Recruitment to the project is an ongoing process that began in fall 2008 and is continuing. Lead organizations in States were encouraged to recruit as many teams of participants as they could. The ongoing success of this program, awareness of impending CMS public reporting of CLABSI rates, and the 2011 requirement that hospitals submit CLABSI data into NHSN are encouraging additional hospitals to enroll. Once States agreed to participate, they were placed into a project group or "cohort" along with other States beginning the project at the same time. At present, five cohorts of States are participating in the project, and a sixth is scheduled to begin in January 2011. Many States are continuing to recruit additional hospital teams to participate. As a result, some lead organizations are supporting hospital participants in one or more of the project cohorts. Figure 1 illustrates the current status of State recruitment efforts.

Figure 1: Participation by State



Additional states may still opt to participate in Cohort 6

Forty-four States plus the District of Columbia and Puerto Rico have committed to participating in one of the six cohorts. Although Michigan is not listed as a formal project participant, Michigan hospitals continue to work with the MHA Keystone Center on sustaining the exceptionally low CLABSI rates they achieved in the initial Keystone Project.^{3,4} The State of Washington has participated in some project activities but has not submitted any CLABSI data.

Levels of participation within States vary substantially. Table 1 provides a breakdown of the number of participating hospitals and teams by State. This table is limited to the first four project cohorts; cohorts 5 and 6 are still actively recruiting hospital participants. Because some States have a higher percentage of very small hospitals that do not have an ICU or insert central lines, some variation in the percentage of hospitals in each State that could benefit from project participation is to be expected. Alabama, Delaware, Hawaii, and Maryland all have more than 50 percent of their hospitals participating in the project.

Table 1: Hospital and Team Participation by StateInformation detailed reflective of data entered as ofOctober 7, 2010						
State	Participating Teams ⁵	Participating HospitalsCommunity Hospitals in State ⁶ Hospital Recruitment 		Hospitals in State with an ICU ⁷		
AL	91	77	115	67%	68	
AR	54	28	95 29%		49	
CO	8	6	84	7%	42	
СТ	18	15	35 43%		25	
DE	14	8	7 114%		6	
FL	73	35	215	16%	111	
GA	36	23	154 15%		79	
HI	38	16	25	64%	14	
IA	17	9	118	8%	75	
IL	71	35	189	19%	127	
IN	20	15	134	11%	86	

³ Pronovost P, Needham D, Berenholtz S, et al. An intervention to decrease catheter-related bloodstream infections in the ICU. N Engl J Med 2006 Dec 28;355(26):2725–2732.

⁴ Pronovost PJ, Goeschel CA, Colantuoni E, et al. Sustaining reductions in catheter-related bloodstream infections in Michigan intensive care units: an observational study. BMJ 2010 Feb 4;340:c309.

⁵ Teams normally represent a single unit, but some teams include personnel from multiple units.

⁶ The term "Community Hospitals in State" reflects those hospitals defined as "Community Hospitals" in the AHA Annual Survey and refers to all nonfederal, short-term and long-term general acute care hospitals. The recruitment percentage is calculated based on this number. There are instances where participating hospitals are not characterized as community hospitals, and these result in a recruitment percentage greater than 100.

⁷ This category denotes hospitals with some form of an ICU. The project is reporting this because this hospital designation accounts for the majority of project participants, as well as the majority of hospitals likely to insert central lines and to experience CLABSIS.

KS	12	9	146	6%	55
KY	59	33	109	30%	58
MA	18	12	80	15%	51
MD	58	37	49	76%	43
MN	28	10	133	8%	67
MO	10	10	134	7%	87
NC	47	29	117	25%	82
NE	17	8	90	9%	25
NH	10	9	28	32%	25
NJ	53	37	80	46%	56
NV	17	8	43	19%	16
NY	29	22	191	12%	123
OH	64	57	195	29%	132
OK	17	13	135	10%	46
OR	4	4	59	7%	52
PA	45	26	197	13%	125
SC	47	22	72	31%	54
TX	43	26	520	5%	268
VA	38	23	91	25%	56
WI	79	40	132	30%	84
WV	29	20	58	34%	37

<u>Hospital Participation</u>. Because CLABSIs can occur in all sizes and types of hospitals in which central lines are used, this project has encouraged each State lead organization to enlist the participation of all hospitals that use central lines when recruiting. Figure 2 summarizes the participation of hospitals in this project based on their size (defined by the number of hospital beds). Percentages were based on the number of hospitals with an adult ICU of each size participating in the project divided by the total number of hospitals of each size with an adult medical or surgical ICU (based on data in the 2008 AHA Annual Survey).

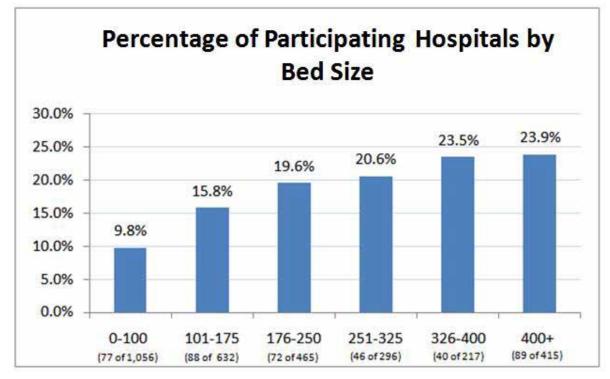


Figure 2: Percentage of Participating Hospitals by Bed Size

Thus far, project recruitment has been strongest among hospitals with more than 400 beds, and weakest among hospitals with fewer than 100 beds. Although small hospitals insert central lines in their ICUs, the number of insertions is often very low, which perhaps has made CLABSI prevention a lower priority for these hospitals.

Figure 3 summarizes the recruitment levels for hospitals with a range of characteristics. More than 24 percent of teaching hospitals with ICUs are participating in the project. The involvement of rural referral hospitals, hospitals from the 100 largest cities, and hospitals that are part of hospital systems is slightly lower. Efforts to bolster recruitment in groups where involvement is lower are ongoing.

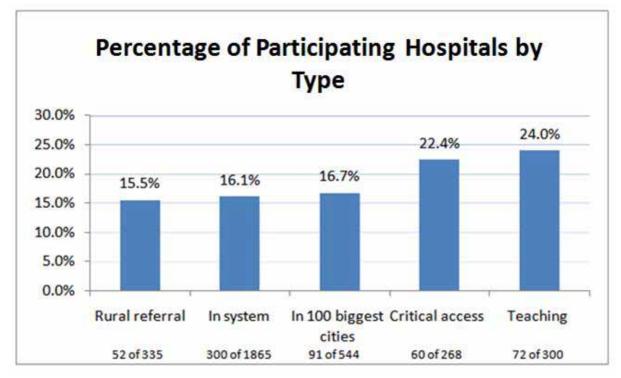


Figure 3: Percentage of Participating Hospitals by Type

Appendix A provides a full list of all hospitals participating in the project as of January 2011. Ohio and Washington have not provided the names of participating hospitals, so those are not included. Because the number of participating hospitals continues to grow, the list of participating hospitals maintained on the project Web site at www.onthecuspstophai.org provides the best source of current information on which hospitals have chosen to participate. While the list in Appendix A and on the Web site includes every hospital that has been enrolled in the national project database, some hospitals on this list may not be continuing to submit CLABSI data or participate in scheduled project activities on a regular basis.

<u>Unit Team Participation</u>. Because the vast majority of central lines are placed in patients in an ICU, recruiting ICU teams has been the project's primary focus. However, some central lines are placed and maintained in non-ICU units. Thus, teams representing these units are also participating. At present, some pediatric or neonatal ICUs are participating in the project; HRET is working with other organizations that specialize in pediatric care to provide focused guidance to hospitals seeking to prevent CLABSIs in pediatric and neonatal ICUs. Figure 4 illustrates the range of units participating in the first four cohorts of the *On the CUSP: Stop BSI* initiative.

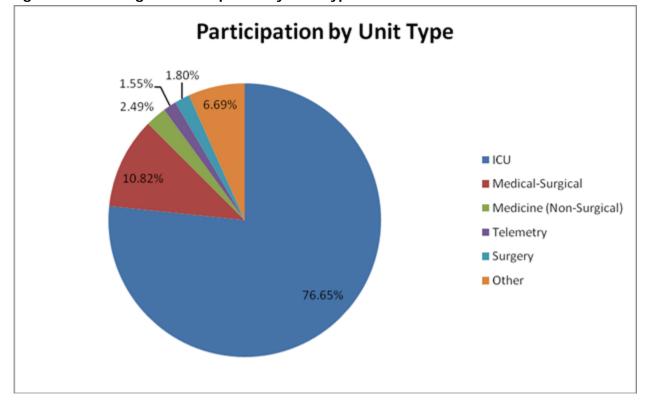


Figure 4: Percentage of Participation by Unit Type

More than 75 percent of units participating in the project thus far are ICUs, with a substantial majority of the ICUs consisting of adult medical/surgical ICUs.

Project Impact

While participation of hospitals is critical, the ultimate measure of success is the reduction of CLABSI rates.⁸ Table 2 summarizes CLABSI rates at baseline and in each of the four measurement periods following the inception of the project.

⁸ A second stated project goal is the improvement in safety culture in participating units. Significant and sustained improvement in a clinical outcome such as CLABSI requires a culture where all staff understand and can be held accountable for ensuring the safety of patients. To assess progress in culture change, participating units are asked to complete the AHRQ Safety Culture survey at the start and end of the project. Results of these administrations of the survey will be reported when they become available.

Table 2: Average CLABSI Rates						
Cohorts 1 & 2 with units reporting during ANY of the five time periods						
Informatio	n detailed refle	ective of data e	entered as of C	ctober 7, 2010.		
	Baseline 12 months prior to intervention	Period 1 Months 1-3 post intervention	Period 2 Months 4-6 post intervention	Period 3 Months 7-9 post intervention	Period 4 Months 10-15 post intervention	
Number of States Number of units	20	20	20	20	20	
reporting	384	436	435	434	402	
Average CLABSIs/unit	3.12	0.93	0.72	0.65	0.64	
Average CL days/unit	1680	510	508	507	556	
Average BSI rate	1.80	1.64	1.31	1.14	1.17	
95% confidence interval	(1.53, 2.08)	(1.39, 1.89)	(1.09, 1.53)	(0.94, 1.35)	(0.89, 1.44)	
Change from baseline*	NA	-0.19 (-0.58,	-0.53 (-0.89,-	-0.61	-0.59	
95% confidence interval		0.20)	0.17)	(-0.97,-0.25)	(-1.01,-0.17)	
* Based on unpaired comparison of unit rates between time periods						

For all adult ICUs participating in the first two project cohorts, rates have dropped from an average of 1.8 infections per 1,000 central line days to 1.17 infections per 1,000 central line days, an overall relative reduction of 35 percent. Because mean CLABSI rates can be distorted by one or more units with very high rates, it is useful to examine both mean and median CLABSI rates. Figure 5 illustrates the changes in mean and median CLABSI rates across the data reporting periods. More than half of all participating units reported zero CLABSIs in each reporting period since they began participating in the project. Working to assist units that have not achieved this rate remains a top project priority.

Figure 5: CLABSI Rates Over Time

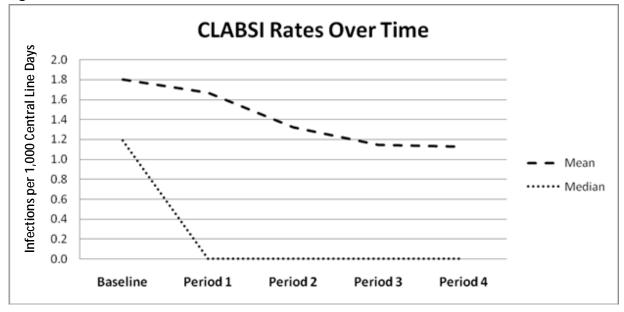


Table 2 and Figure 5 include data from all units that reported data in each of the measurement periods. It is possible that the worst performing units at baseline simply failed to report data during later time periods, leading to an artificial drop in the rates. To rule out this possibility, the same analysis was performed using only units that reported data at baseline and in each subsequent reporting period. Table 3 presents these results, which are very similar.

Table 3: Average CLABSI Rates						
Cohorts 1 & 2 with units reporting during ALL of the five time periods						
Information	detailed reflecti	ive of data ente	ered as of Octo	ober 7, 2010.		
	Baseline 12 months prior to intervention	Period 1 Months 1-3 post intervention	Period 2 Months 4-6 post intervention	Period 3 Months 7-9 post intervention	Period 4 Months 10- 15 post intervention	
Number of States	20	20	20	20	20	
Number of units reporting	349	349	349	349	349	
Average CLABSIs/unit	3.20	0.83	0.69	0.67	0.66	
Average CL days/unit	1736	499	502	518	598	
Average BSI rate	1.76	1.65	1.31	1.22 (0.98,	1.21	
95% confidence interval	(1.51, 2.01)	(1.36, 1.93)	(1.07, 1.55)	1.45)	(0.90, 1.52)	
Change from baseline*	NA	-0.11	-0.45	-0.54	-0.55	
OE% confidence interval		(-0.44,	(-0.77,-	(-0.83,-	(-0.93,-	
95% confidence interval		0.22)	0.13)	0.26)	0.17)	

* Based on paired comparison of unit rates between time periods

Overall, rates decreased in the units with complete data by 31 percent, from 1.76 to 1.21 CLABSIs per 1,000 central line days, indicating that the CLABSI rate reductions observed in project participants cannot be attributed to missing data. One of the more surprising findings in this data is the relatively low baseline CLABSI rates. Alternative explanations for these low rates are being examined. However, we do not believe that only hospitals with good rates are participating in the project.

The other data concern is the accuracy of self-reported CLABSI rates. Data validation is not included in the scope of the project at this point. However, data submitted directly into our national project database is subject to more screens for accuracy than is currently the case for data submitted into NHSN. The national project team is continuing to work with AHRQ and CDC to explore the issue of validation.

AREAS FOR CONTINUED IMPROVEMENT

Although the results described above indicate that the project is making substantial progress toward achieving its recruitment and CLABSI reduction goals, opportunities for improvement remain. The three most important areas for improvement are:

- Recruitment: With fewer than 20 percent of U.S. hospitals containing an ICU participating in this project, encouraging additional hospitals to be involved in this project remains a priority. Certainly some hospitals have participated in very successful local or regional efforts to reduce CLABSIs and have compelling data demonstrating the success of their efforts. However, most nonparticipating hospitals have not made the changes needed to produce sustainable CLABSI rates near zero. The leadership of the American Hospital Association and many State hospital associations are working with AHRQ, CDC, and the *On the CUSP: Stop BSI* national project team to encourage all hospitals to participate in the project.
- Data submission: As reflected in tables 2 and 3, only 80 percent of participating adult ICUs in the first two cohorts have submitted CLABSI rate data in each of the reporting periods. While data submission does not improve CLABSI rates, a failure to continuously monitor CLABSIs and to use each infection to identify processes that must be improved to prevent them in the future will not lead to sustained improvement. The national leadership of the project is working closely with the lead organizations in every participating State to encourage all participating hospitals to remain fully engaged in the project for its duration and in the monitoring and reporting of their CLABSI rates.

 Variability: Although CLABSI rates have dropped significantly in the first two cohorts, substantial variability remains between participating units in these cohorts. For the project to reach its stated goal, more than half the units participating in the project must have zero CLABSIs in any given quarter. At present, this standard has not been achieved, so working to reduce variability between units and States and across measurement periods remains a high priority.

CONCLUSION

Results reported above are aligned with a very encouraging CDC report on the decline in the number of CLABSIs between 2001 and 2009. That report found a decrease in the ICU CLABSI rate from 3.64 per thousand line days in 2001 to 1.65 per thousand line days in 2009.⁹ While differences in the methods used to calculate these rates mean that comparisons should be made quite cautiously, it does appear that the *On the CUSP: Stop BSI* project is both succeeding in recruiting units that have higher CLABSI rates than the national average and in helping these units decrease their rates well below the national average that CDC reports.

This report is not a comprehensive analysis of every important question related to the *On the CUSP: Stop BSI* national initiative. The national project team continues to conduct analyses to better understand which units are succeeding, which are struggling and why, so that changes may be made to the initiative to maximize its impact for every participating hospitals. Better understanding the root causes of CLABSIs that continue to occur sporadically in even high-performing units may also lead to important insights. Continuing to help hospitals correctly count central line days and identify CLABSIs is vital to efforts to prevent them and to increase public confidence that this risk to patient safety is being reduced or even eliminated. While much of the work on this national initiative still remains, the results in this report indicate that significant progress is being made toward achieving its goals.

⁹ Vital Signs: Central Line-Associated Blood Stream Infections—United States, 2001, 2008, and 2009. Morbidity and Mortality Weekly Report. Atlanta, GA: Centers for Disease Control and Prevention; 2011 Mar 1;60. Available at: <u>http://www.cdc.gov/mmwr/pdf/wk/mm60e0301.pdf</u>.

Alabama

Andalusia Regional Hospital, Andalusia Athens-Limestone Hospital, Athens Atmore Community Hospital, Atmore Baptist Medical Center East, Montgomery Baptist Medical Center South, Montgomery Bibb Medical Center, Centreville Brookwood Medical Center, Birmingham Cherokee Medical Center, Centre Chilton Medical Center, Clanton Clay County Hospital, Ashland Community Hospital, Tallassee Cooper Green Mercy Hospital, Birmingham Coosa Valley Medical Center, Sylacauga Crestwood Medical Center, Huntsville Cullman Regional Medical Center, Cullman D.W. McMillan Memorial Hospital, Brewton Dale Medical Center, Ozark DCH Regional Medical Center, Tuscaloosa Decatur General Hospital, Decatur DeKalb Regional Medical Center, Fort Payne East Alabama Medical Center, Opelika Elba General Hospital, Elba Eliza Coffee Memorial Hospital, Florence Evergreen Medical Center, Evergreen Fayette Medical Center, Fayette Flowers Hospital, Dothan Florala Memorial Hospital, Florala Gadsden Regional Medical Center, Gadsden Georgiana Hospital, Georgiana Grove Hill Memorial Hospital, Grove Hill Hale County Hospital, Greensboro Helen Keller Hospital, Sheffield Highlands Medical Center, Scottsboro Huntsville Hospital, Huntsville Infirmary West, Mobile J. Paul Jones Hospital, Camden Jackson Hospital, Montgomery Jackson Medical Center, Jackson Jacksonville Medical Center, Jacksonville L.V. Stabler Memorial Hospital, Greenville

Lanier Health Services, Valley Marion Regional Medical Center, Hamilton Marshall Medical Center North, Guntersville Marshall Medical Center South, Boaz Medical Center Barbour, Eufaula Medical Center Enterprise, Enterprise Medical West, an affiliate of University of Alabama-Birmingham Health System, Bessemer Mizell Memorial Hospital, Opp Mobile Infirmary Medical Center, Mobile Monroe County Hospital, Monroeville North Baldwin Infirmary, Bay Minette Northeast Alabama Regional Medical Center, Anniston Northport Medical Center, Northport Parkway Medical Center, Decatur Pickens County Medical Center, Carrollton Prattville Baptist Hospital, Prattville Princeton Baptist Medical Center, Birmingham Providence Hospital, Mobile Randolph Medical Center, Roanoke Red Bay Hospital, Red Bay Riverview Regional Medical Center, Gadsden Russell Medical Center, Alexander City Russellville Hospital, Russellville Shelby Baptist Medical Center, Alabaster Shoals Hospital, Muscle Shoals South Baldwin Regional Medical Center, Foley Southeast Alabama Medical Center, Dothan Springhill Medical Center, Mobile St. Vincent's Birmingham, Birmingham St. Vincent's Blount, Oneonta St. Vincent's East, Birmingham St. Vincent's St. Clair, Pell City Thomas Hospital, Fairhope Trinity Medical Center, Birmingham Troy Regional Medical Center, Troy

University of Alabama-Birmingham Hospital (Including UAB Highlands), Birmingham

University of South Alabama (USA) Medical Center, Mobile

Vaughan Regional Medical Center, Selma Wiregrass Medical Center, Geneva

Arkansas

Arkansas Heart Hospital, Little Rock Baptist Health Extended Care Hospital, Little Rock Baptist Health Medical Center, Arkadelphia Baptist Health Medical Center, Heber Springs Baptist Health Medical Center, Little Rock Baptist Health Medical Center, North Little Rock Baxter Regional Medical Center, Mountain Home Bradley County Medical Center, Warren Crittenden Regional Hospital, West Memphis CrossRidge Community Hospital, Wynne Drew Memorial Hospital, Monticello Five Rivers Medical Center, Pocahontas Lawrence Memorial Hospital, Walnut Ridge Mercy Medical Center, Rogers NEA Baptist Memorial Hospital, Jonesboro North Arkansas Regional Medical Center, Harrison Ouachita County Medical Center, Camden Ozark Health Medical Center, Clinton Saint Mary's Regional Medical Center, Russellville St. Edward Mercy Medical Center, Fort Smith St. Joseph's Mercy Health Center, Hot Springs University Hospital of Arkansas, Little Rock Washington Regional Medical Center, Fayetteville White County Medical Center, Searcy White River Medical Center, Batesville

Colorado

Exempla Lutheran Medical Center, Wheat Ridge

Exempla Saint Joseph Hospital, Denver Poudre Valley Hospital, Fort Collins Southwest Memorial Hospital, Southwest St. Mary-Corwin Medical Center, Pueblo University Hospital, Denver

Connecticut

Bridgeport Hospital, Bridgeport Bristol Hospital, Bristol Danbury Hospital, Danbury Hospital of Saint Raphael, New Haven John Dempsey Hospital, University of Connecticut Health Center, Farmington Lawrence and Memorial Hospital, New London Manchester Memorial Hospital, Manchester Norwalk Hospital, Norwalk Rockville General Hospital, Vernon Saint Francis Hospital and Medical Center, Hartford Saint Mary's Hospital, Waterbury St. Vincent's Medical Center, Bridgeport Waterbury Hospital, Waterbury The William W. Backus Hospital, Norwich Yale-New Haven Hospital, New Haven

Delaware

Alfred I duPont Hospital for Children, Wilmington Beebe Medical Center, Lewes Christiana Hospital, Newark Kent General Hospital, Dover Milford Memorial Hospital, Milford Nanticoke Memorial Hospital, Seaford St. Francis Hospital, Wilmington Wilmington Hospital, Wilmington

District of Columbia

Washington Hospital Center, Washington DC

National Rehabilitation Hospital, Washington DC Georgetown University Hospital, Washington DC George Washington University Hospital, Washington DC Sibley Memorial Hospital, Washington DC Howard University Hospital, Washington DC

Florida

Adventist Health System, Winter Park Baptist Hospital, Pensacola Baptist Hospital of Miami, Miami Baptist Medical Center South, Jacksonville Cape Canaveral Hospital, Cocoa Beach Cape Coral Hospital, Cape Coral Citrus Memorial Health System, Inverness Doctors Hospital, Coral Gables Gulf Coast Medical Center, Fort Myers H. Lee Moffitt Cancer Center, Tampa Health Central, Ocoee HealthPark Medical Center, Fort Myers Holmes Regional Medical Center, Melbourne Holy Cross Hospital, Fort Lauderdale Homestead Hospital, Homestead Jupiter Medical Center, Jupiter Lakeland Regional Medical Center, Lakeland Lee Memorial Hospital, Fort Myers Mariners Hospital, Tavernier Mayo Clinic Hospital, Florida, Jacksonville Memorial Hospital Miramar, Miramar Memorial Hospital Pembroke, Pembroke Pines Memorial Hospital West, Pembroke Pines Memorial Regional Hospital, Hollywood Memorial Regional Hospital South, Hollywood Munroe Regional Medical Center, Ocala NCH Healthcare System, Naples North Broward Medical Center, Deerfield Beach Orlando Regional Medical Center, Orlando

Palm Bay Hospital, Palm Bay

Sacred Heart Hospital of Pensacola, Pensacola Sarasota Memorial Health Care System, Sarasota Shands at the University of Florida, Gainesville Shands Jacksonville Medical Center, Jacksonville South Miami Hospital, South Miami Tallahassee Memorial HealthCare,

Tallahassee

Georgia

Atlanta Medical Center, Atlanta Cartersville Medical Center, Cartersville DeKalb Medical Hillandale, Lithonia DeKalb Medical North Decatur, Decatur Emory Eastside Medical Center, Snellville Emory Johns Creek Hospital, Duluth Emory University Hospital, Atlanta Emory University Hospital Midtown, Atlanta Emory University Hospital, Wesley Woods, Atlanta Emory-Adventist Hospital, Smyrna Floyd Medical Center, Rome Gwwinett Medical Center Hospital, Lawrenceville Habersham Medical Center, Demorest Houston Healthcare Perry Hospital, Perry Hutcheson Medical Center, Fort Ogelthorpe Liberty Regional Medical Center, Hinesville Memorial Hospital and Manor, Bainbridge Newton Medical Center, Covington Phoebe Putney Memorial Hospital, Albany Piedmont Newman Hospital, Newnan Redmond Regional Medical Center, Rome St. Francis Hospital, Columbus Tift Regional Medical Center, Tifton Upson Regional Medical Center, Thomaston WellStar Cobb Hospital, Austell WellStar Kennestone Hospital, Marietta West Georgia Health System, LaGrange

Hawaii

Castle Medical Center, Kailua Hawaii Medical Center East, Honolulu Hawaii Medical Center West, Ewa Beach Hilo Medical Center, Hilo Kaiser Permanente Hospital, Honolulu Kapiolani Medical Center for Women and Children, Honolulu Kona Community Hospital, Kealakekua Kuakini Medical Center, Honolulu KVMH-West Kauai Medical Center, Waimea Maui Memorial Medical Center, Wailuku North Hawaii Community Hospital, Kamuela Pali Momi Medical Center, Aiea Straub Hospital and Clinic, Honolulu The Queens Medical Center, Honolulu Tripler Army Medical Center, Honolulu Wahiawa General Hospital, Wahiawa Wilcox Memorial Hospital, Lihue

Illinois

Carle Foundation Hospital, Urbana Centegra, McHenry Centegra, Woodstock CGH Medical Center, Sterling Decatur Memorial Hospital, Decatur Delnor Community Hospital, Geneva Edward Hospital, Naperville Fayette County Hospital, Vandalia Ferrell Hospital, Eldorado FHN Memorial Hospital, Freeport Greenville Regional Hospital, Greenville Hamilton Memorial Hospital District, McLeansboro Harrisburg Medical Center, Harrisburg Iroquois Memorial Hospital, Watseka Jerseyville Community Hospital, Jerseyville Katherine Shaw Bethea Hospital, Dixon Kewanee Hospital, Kewanee Kindred Hospital Chicago, Northlake Kishwaukee Community Hospital, DeKalb Loretto Hospital, Chicago Loyola Gottlieb Memorial Hospital, Melrose Park

MacNeal Hospital, Berwyn Mason District Hospital, Havana McDonough District Hospital, Macomb Memorial Medical Center, Springfield Mercy Hospital, Chicago MetroSouth Medical Center, Blue Island Morris Hospital and Healthcare System, Morris Mount Sinai Hospital, Chicago OSF Saint Anthony Medical Center, Rockford OSF Saint Mary Medical Center, Galesburg Ottawa Regional Hospital, Ottawa Pekin Hospital, Pekin Pickneyville Community Hospital, Pickneyville Proctor Hospital, Peoria Provena Saint Joseph Medical Center, Joliet Provena Saint Mary's Hospital, Kankakee Riverside Medical Center, Kankakee Rockford Memorial Hospital, Rockford Rush Copley Medical Center, Aurora Rush Oak Park Hospital, Oak Park Sacred Heart Hospital, Chicago St. Anthony's Health System, Alton St. Alexius Medical Center, Hoffman Estates St. Mary's and Elizabeth's Medical Center, Chicago Sparta Community Hospital, Sparta Thomas H. Boyd Memorial Hospital, Carrollton Valley West Community Hospital, Sandwich Vista Health System, Waukegan Indiana Deaconess Hospital, Evansville

Munster Community, Munster Saint Margaret Mercy, Dyer Schneck Medical Center, Seymour St. Vincent Heart Center of Indiana, Indianapolis

- St. Francis Hospital, Beech Grove Campus, Beech Grove
- St. Mary Medical Center, Hobart

St. Vincent Dunn Hospital, Bedford

lowa

Broadlawns Medical Center, Des Moines Covenant Medical Center, Waterloo The Finley Hospital, Dubuque Genesis Medical Center, Davenport Mary Greeley Medical Center, Ames Mercy Hospital Iowa City, Iowa City Mercy Hospital, CB, Council Bluffs Pella Regional Health Center, Pella Ringgold County Hospital, Mount Ayr Skiff Medical Center, Newton St. Anthony Regional Hospital and Nursing Home, Carroll Trinity Muscatine, Muscatine Waverly Health Center, Waverly

Kansas

Cheyenne County Hospital, St. Francis Community Memorial Healthcare, Marysville Cushing Memorial Hospital, Leavenworth FW Huston Medical Center, Winchester Hays Medical Center, Hays Holton Community Hospital, Holton Kingman Community Hospital, Kingman Lawrence Memorial Hospital, Lawrence Menorah Medical Center, Overland Park Mercy Regional Health Center, Manhattan Mitchell County Health System, Beloit Morris County Hospital, Council Grove Neosho Memorial Regional Medical Center, Chanute

Newton Memorial Hospital, Newton Pratt Regional Medical Center, Pratt Ransom Memorial Hospital, Ottawa Republic County Hospital, Belleville Saint Lukes South, Overland Park Salina Regional Health Center, Salina Shawnee Mission Medical Center, Shawnee

Mission

The University of Kansas Hospital, Kansas City

Wilson Medical Center, Neodesha

Kentucky

Baptist Hospital East, Louisville Central Baptist Hospital, Lexington Continuing Care Hospital, Lexington Ephraim McDowell Regional Medical Center, Danville Hardin Memorial Hospital, Elizabethtown Harlan ARH, Harlan Harrison Memorial Hospital, Cynthiana Hazard ARH, Hazard Highlands Regional Medical Center, Prestonsburg Jennie Stuart Medical Center, Hopkinsville Jewish Hospital, Louisville Jewish Hospital Shelbyville, Shelbyville Kindred Hospital of Louisville, Louisville King's Daughters Medical Center, Ashland Lake Cumberland Regional Hospital, Somerset Meadowview Regional Medical Center, Maysville Methodist Hospital, Henderson Middlesboro ARH, Middlesboro Norton Audubon, Louisville Norton Brownsboro Hospital, Louisville Norton Hospital, Louisville Norton Suburban Hospital, Louisville Our Lady of Bellefonte Hospital, Ashland Owensboro Medical Health System, Owensboro Pikeville Medical Center, Pikeville Spring View Hospital, Lebanon St. Joseph East, Lexington St. Joseph Hospital, Lexington St. Mary's and Elizabeth Hospital, Louisville Taylor Regional Hospital, Campbellsville T.J. Samson Community Hospital, Glasgow Whitesburg ARH, Whitesburg Williamson ARH, South Williamson

Louisiana

Heart Hospital of Lafayette, Lafayette Interim LSU Public Hospital, New Orleans Lane Regional Medical Center, Zachary Louisiana State University Bogalusa Medical Center, Bogalusa Louisiana State University Earl K. Long Medical Center, Baton Rouge North Oaks Health System, Hammond Ochsner Baptist Medical Center, New Orleans Ochsner Medical Center, Baton Rouge Ochsner Medical Center, Kenner Ochsner Medical Center, New Orleans Ochsner Medical Center, Northshore, Slidell Ochsner Medical Center, West Bank, Gretna Touro Infirmary, New Orleans

Maryland

Adventist Rehabilitation Hospital of Maryland, Rockville Anne Arundel Medical Center, Annapolis Atlantic General Hospital, Berlin Baltimore Washington Medical Center, Glen **Burnie** Calvert Memorial Hospital, Prince Frederick Carroll Hospital Center, Westminster Chester River Hospital Center, Chestertown Civista Medical Center, La Plate Doctors Community Hospital, Lanham Dorchester General Hospital, Cambridge Fort Washington Medical Center, Fort Washington Franklin Square Hospital Center, Baltimore Frederick Memorial Healthcare System, Frederick Good Samaritan Hospital, Baltimore Greater Baltimore Medical Center, Baltimore Harbor Hospital, Baltimore Harford Memorial Hospital, Havre de Grace Holy Cross Hospital, Silver Spring Howard County General Hospital, Columbia Johns Hopkins Bayview Medical Center, Baltimore Kernan Orthopedics and Rehabilitations, Gwynn Oak Maryland General Hospital, Baltimore Memorial Hospital Easton, Easton

Mercy Medical Center, Baltimore Meritus Medical Cetner, Hagerstown Montgomery General Hospital, Olney Northwest Hospital, Randallstown Peninsula Regional Medical Center, Salisbury Prince George's Hospital, Cheverly Saint Agnes Hospital, Baltimore Shady Grove Adventist Hospital, Rockville Sinai Hospital, Baltimore Southern Maryland Hospital Center, Clinton St. Joseph Medical Center, Towson St. Mary's Hospital, Leonardtown Suburban Hospital, Bethesda The Johns Hopkins Hospital, Baltimore Union Hospital of Cecil County, Elkton Union Memorial Hospital, Baltimore University of Maryland Medical Center, Baltimore University Specialty Hospital, Baltimore Upper Chesapeake Medical Center, Bel Air Washington Adventist Hospital, Takoma Park Western Maryland Regional Medical Center, Cumberland

Massachusetts

Baystate Medical Center, Springfield Berkshire Medical Center, Pittsfield Fairview Hospital, Great Barrington Jordan Hospital, Plymouth Marlbourough Hospital, Marlborough Melrose Wakefield Hospital, Melrose Morton Hospital, Taunton Mount Auburn Hospital, Cambridge Noble Hospital, Westfield Tufts Medical Center, Boston

Minnesota

Cuyuna Regional Medical Center, Crosby Essential Health East Region, Duluth Kanabec Hospital, Mora Lakeview Hospital, Stillwater Lakewood Hospital, Staples LifeCare Medical Center, Roseau Mayo Clinic, Rochester Regina Medical Center, Hastings Riverview Health, Crookston Sleepy Eye Medical Center, Sleepy Eye St. Cloud Hospital, St. Cloud St. Joseph's Medical Center, Brainerd Swift County-Benson Hospital, Benson

Missouri

Cass Regional Medical Center, Harrisonville Heartland Regional Medical Center, St.

Joseph

Hedrick Medical Center, Chillicothe

North Kansas City Hospital, North Kansas City

St. Joseph Medical Center, Kansas City

St. Luke's East Hospital, Lee's Summit

St. Luke's Hospital of Kansas City, Kansas City

St. Luke's Northland Hospital, Kansas City

St. Mary's Medical Center, Blue Springs

Truman Lakewood Hospital, Kansas City

Truman Medical Center Hospital Hill, Kansas City

Nebraska

Alegent Health Bergan Mercy, Omaha Alegent Health Immanuel, Omaha Alegent Health Lakeside, Omaha Alegent Health Midlands, Papillion Alegent Mercy, Council Bluffs Faith Regional Health Services, Norfolk Mary Lanning Memorial Hospital, Hastings Saint Elizabeth Regional Health Center, Lincoln

The Nebraska Medical Center, Omaha

Nevada

Centennial Hills Hospital Medical Center, Las Vegas

Desert Springs Hospital Medical Center, Las Vegas

Desert View Hospital, Pahrump

HealthSouth Tenaya, Las Vegas Horizon Specialty, Las Vegas North Vista Hospital, North Las Vegas Northern Nevada Medical Center, Sparks Nye Regional Medical Center, Tonopah Renown Regional, Reno Renown South Meadows, Reno Saint Mary's Regional Medical Center, Reno Southern Hills Hospital and Medical Center, Las Vegas Spring Valley Hospital Medical Center, Las Vegas Summerlin Hospital Medical Center, Las Vegas Sunrise Hospital, Las Vegas University Medical Center, Las Vegas Valley Hospital Medical Center, Las Vegas

New Hampshire

Catholic Medical Center, Manchester Concord Hospital, Concord Dartmouth Hitchcock Medical Center, Lebanon Elliot Hospital, Manchester LRGHealthcare – Franklin, Franklin LRGHealthcare – Lakes Region General Hospital, Laconia Parkland Medical Center, Derry Southern NH Medical Center, Nashua St. Joseph Hospital, Nashua

New Jersey

AtlantiCare Regional Medical Center, Atlantic City Atlanticare Regional Medical Center Mainland Division, Pomona Bayonne Medical Center, Bayonne Cape Regional Medical Center, Cape May Court House CentraState Medical Center, Freehold Clara Maass Medical Center, Belleville Community Medical Center, Toms River East Orange General Hospital, East Orange Elmer Hospital, Elmer Hackensack University Medical Center, Hackensack Hoboken University Medical Center, Hoboken Holy Name Hospital, Teaneck Hunterdon Medical Center, Flemington Jersey Shore University Medical Center, East Neptune JFK Medical Center, Edison Kimball Medical Center, Lakewood Lourdes Medical Center Burlington County, Willingboro Memorial Hospital of Salem County, Salem Monmouth Medical Center, Long Beach Morristown Memorial Hospital, Morristown Mountainside Hospital, Montclair Newark Beth Israel Medical Center, Newark Ocean Medical Center, Brick Our Lady of Lourdes Medical Center, Camden **Overlook Hospital, Summit** Palisades Medical Center, North Bergen **Riverview Medical Center, Red Bank** Robert Wood Johnson University Hospital, New Brunswick Saint Barnabas Medical Center, Livingston St. Clare's Hospital, Denville, Denville Shore Memorial Hospital, Somers Point Somerset Medical Center, Somerville South Jersey Regional Medical Center Facility, Vineland St. Francis Medical Center, Trenton The Valley Hospital, Ridgewood Trinitas Regional Medical Center, Elizabeth Underwood Memorial Hospital, Woodbury University Medical Center, Princeton Virtua Marlton, Marlton Virtua Voorhees, Voorhees Warren Hospital, Phillipsburg New York

Beth Israel Medical Center Kings Highway

Division, Brooklyn

Beth Israel Medical Center Milton and Carroll Petrie Division, New York Oneida Healthcare Center, Oneida Phelps Memorial Hospital, Sleepy Hollow Seton Health St. Mary's Hospital, Troy St. Francis Hospital, The Heart Center

St. Francis Hospital, The Heart Center, Roslyn

- St. John's Episcopal Hospital, Far Rockaway
- St. Luke's Roosevelt Hospital Center, Roosevelt, Dobbs Ferry
- St. Luke's Roosevelt Hospital Center, St. Luke's, New York
- St. Mary's Hospital, Amsterdam

North Carolina

Annie Penn Hospital, Reidsville Brunswick Community Hospital, Supply Cape Fear Valley Medical Center, Fayetteville Carteret County General Hospital, Morehead City Catawba Valley Medical Center, Hickory Duke Raleigh Hospital, Raleigh Duke University Hospital, Durham Durham Regional Hospital, Durham FirstHealth Moore Regional Hospital, Pinehurst Forsyth Medical Center, Winston-Salem Gaston Memorial Hospital, Gastonia Granville Medical Center, Oxford Haywood Regional Medical Center, Clyde Lake Norman Regional Medical Center, Mooresville The Moses Cone Memorial Hospital, Greensboro Onslow Memorial Hospital, Jacksonville Pitt County Memorial Hospital, Greenville Presbyterian Hospital, Charlotte Presbyterian Hospital Huntersville, Huntersville Presbyterian Hospital Matthews, Matthews Rex Healthcare, Raleigh Rowan Regional Medical Center, Salisbury Sampson Regional Medical Center, Clinton Thomasville Medical Center, Thomasville

Wake Forest University Baptist Medical Center, Winston-Salem

The Wesley Long Community Hospital, Greensboro

The Women's Hospital of Greensboro (WhoG), Greensboro

Ohio

Ohio has 57 hospitals participating in the Stop BSI project.

Oklahoma

Comanche County Memorial Hospital, Lawton Duncan Regional Hospital, Duncan Eastern Oklahoma Medical Center, Poteau Great Plains Regional Medical Center, Elk City Integris Grove Hospital, Grove McCurtain System Hospital, Idabel Memorial Hospital of Texas County, Guymon Mercy Health Center, Oklahoma City Mercy Memorial Health Center, Ardmore St. Anthony, Oklahoma City Tahleguah City Hospital, Tahleguah Unity Health Center, Shawnee Valley View Regional Hospital, Ada

Oregon

Bay Area Hospital, Coos Bay Columbia Memorial Hospital, Astoria Good Samaritan Regional Medical Center, Corvallis Mountain View Hospital, Madras Oregon Health and Sciences University, Portland Providence Portland Medical Center, Portland Sky Lakes Medical Center, Klamath Falls St. Anthony Hospital, Pendleton

Pennsylvania

Albert Einstein, Philadelphia

Alfred I. DuPont Hospital for Children/Thomas Jefferson University, Philadelphia Allegheny General Hospital, West Penn Allegheny Health System, Pittsburgh Altoona Regional Medical Center, Altoona Aria Health, Philadelphia Bradford Regional Medical Center, Bradford Bryn Mawr Hospital, Bryn Mawr Cancer Treatment Center of America. Philadelphia Crozer Chester Medical Center, Upland Delaware County Memorial, Drexel Hill Geisinger Medical Center, Danville Geisinger Wyoming Valley, Wilkes Barre Hazelton General Hospital, Hazelton Holy Spirit Hospital, Camp Hill Lancaster General Hospital, Lancaster Mercy Fitzgerald Hospital, Darby Methodist Hosp-Thomas Jefferson, Philadelphia Mid-Valley Hospital, Peckville Monongahela Valley Hospital, Monongahela Moses Taylor, Scranton Mt. Nittany Medical Center, State College Paoli Hospital, Paoli Punxsutawney Area Hospital, Punxsutawney Robert Packer Hospital, Guthrie Health System, Sayre Saint Joseph's Hospital, Philadelphia Somerset Hospital, Somerset The Children's Institute, Pittsburgh Thomas Jefferson University Hospital, Philadelphia University of Pittsburgh Medical Center, Pittsburgh Wayne Memorial Hospital, Honesdale Westmoreland Hospital, Greensburg Williamsport Regional Hospital, Williamsport

South Carolina

Beaufort Memorial Hospital, Beaufort Bon Secours St. Francis Hospital, Charleston Bon Secours St. Francis Hospital, Greenville Georgetown Memorial, Georgetown Greenville Memorial Hospital, Greenville Hilton Head Hospital, Hilton Head Kershaw Health, Camden Mary Black Health System, Spartanburg McLeod Regional Medical Center, Florence McLeod Regional Medical Center, Dillon Medical University of South Carolina

Medical Center, Charleston Oconee Medical Center, Seneca Palmetto Health Baptist, Columbia Palmetto Health Richland, Columbia Piedmont Medical Center, Rockhill Providence Hospital, Columbia Roper Hospital, Charleston Spartanburg Hospital for Restorative Care, Spartanburg Spartanburg Regional Medical Center, Spartanburg The Regional Medical Center of Orangeburg and Calhoun Counties, Orangeburg Trident Health System, Charleston Tuomey Healthcare System, Sumter Upstate Carolina Medical Center, Gaffney Waccamaw Community Hospital, Murrels Inlet

South Dakota

Avera McKennan Hospital and University Health Center, Sioux Falls Avera Sacred Heart Health Services, Yankton Sanford USD Medical Center, Sioux Falls Sanford USD Medical Center, Sioux Falls Sanford Vermillion Medical Center, Vermillion St. Mary's Hospital, Pierre

Tennessee

Athens Regional Medical Center, Athens Baptist Hospital, Inc., Nashville Baptist Memorial Hospital, Collierville, Collierville

Baptist Memorial Hospital, Huntingdon, Huntingdon Baptist Memorial Hospital, Memphis, Memphis Baptist Memorial Hospital for Women, Memphis Baptist Memorial Restorative Care Hosp, Memphis Blount Memorial Hospital, Maryville Centennial Medical Center, Nashville Cookeville Regional Medical Center, Cookeville Crockett Hospital, Lawrenceburg Cumberland Medical Center, Crossville Delta Medical Center, Memphis Dyersburg Regional Medical Center, Dyersburg East Tennessee Children's Hospital, Knoxville Erlanger Health System, Chattanooga Fort Sanders Regional Medical Center, Knoxville Hendersonville Medical Center, Hendersonville Henry County Medical Center, Paris Hillside Hospital, Pulaski Horizon Medical Center, Dickson Indian Path Medical Center, Kingsport Jackson-Madison County General Hospital, Jackson Johnson City Medical Center, Johnson City LeBonheur Children's Hospital, Memphis Maury Regional Medical Center, Columbia Memorial Healthcare System, Chattanooga Memorial North Park, Hixson Mercy Medical Center North, Powell Mercy Medical Center West, Knoxville Mercy Medical Center St. Mary's, Knoxville Methodist LeBonheur Children's Medical Center, Memphis Methodist LeBonheur Germantown Hospital, Germantown Methodist North Hospital, Memphis Methodist South Hospital, Memphis Methodist University Hospital, Memphis

Middle Tennessee Medical Center, Murfreesboro Morristown-Hamblen Healthcare System, Morristown Nashville General Hospital, Nashville NorthCrest Medical Center, Springfield Parkridge East Hospital, Chattanooga Parkridge Medical Center, Chattanooga Parkwest Medical Center Regional Medical Center at Memphis, Memphis River Park Hospital, McMinnville Roane Medical Center, Harriman Skyline Medical Center, Nashville SkyRidge Medical Center, Cleveland Southern Hills Medical Center, Nashville St. Francis Hospital, Memphis St. Francis Hospital, Bartlett, Bartlett St. Mary's Jefferson Memorial Hospital, Jefferson City St. Mary's Medical Center of Campbell County, La Follette St. Thomas Hospital, Nashville StoneCrest Medical Center, Smyrna Summit Medical Center, Hermitage Sumner Regional Medical Center, Gallatin Sycamore Shoals Hospital, Elizabethton Takoma Regional Medical Center, Greeneville University Medical Center, Lebanon University of Tennessee Medical Center, Knoxville Vanderbilt University Hospital, Nashville Wellmont Bristol Regional Medical Center, Bristol Wellmont Holston Valley Medical Center, Kingsport Williamson Medical Center, Franklin Woods Memorial Hospital, Etowah

Texas

Baptist Hospitals of Southeast Texas, Beaumont Baptist St. Anthony's, Amarillo

Ben Taub, Beaumont Brownwood Regional Medical Center, Brownwood CHRISTUS Santa Rosa Hospital, Westover Hills CHRISTUS Santa Rosa Hospital, New Braunfels CHRISTUS Santa Rosa Hospital, City Centre, San Antonio Covenant Medical Center, Lubbock Doctor's Hospital of Laredo, Laredo Edinburg Regional Medical Center, Edinburg Fort Duncan Regional Medical Center, Eagle Pass Good Shepherd Medical Center, Longview Hendrick Medical Center, Abilene Hill Country Memorial, Fredericksburg Hillcrest Baptist Medical Center, Waco LBJ Hospital, Houston McAllen Heart Hospital, McAllen McAllen Medical Center, McAllen Medical Center Hospital, Odessa Methodist Specialty and Transplant Hospital, San Antonio Metropolitan Methodist Hospital, San Antonio Mother Frances Hospital Regional Health Care Center, Tyler Parkland Health and Hospital System, Dallas Peterson Regional Medical Center, Kerrville Scott and White Children's Hospital, Temple Texoma Medical Center, Denison The Heart Hospital Baylor Plano, Plano United Regional Health Care System, Wichita Falls University Health System, San Antonio University of Texas Southwestern University Hospital, St. Paul, Dallas University of Texas Southwestern University Hospital-Zale Lipshy, Dallas

Virginia

Augusta Medical Center, Fishersville Clinch Valley Medical Center, Richlands Community Memorial Health Center, South Hill

Inova Alexandria Hospital, Alexandria Inova Fair Oaks Hospital, Fairfax Inova Fairfax Hospital, Falls Church Inova Loudoun Hospital, Leesburg Inova Mount Vernon Hospital, Alexandria Mary Washington Hospital, Fredericksburg Medical College of Virginia Hospital of

Virginia Commonwealth University Medical Center, Richmond Prince William Hospital, Manassas Roanoke Memorial Hospital, Roanoke Sentara Bayside Hospital, Virginia Beach Sentara Careplex Hospital, Virginia Beach Sentara Norfolk General Hospital, Norfolk Sentara Obici Hospital, Suffolk Sentara Potomac Hospital, Woodbridge Sentara Virginia Beach Hospital, Virginia Beach

Shenandoah Memorial Hospital, Luray The Fauquier Hospital, Warrenton Twin County Regional Hospital, Galax University of Virginia, Charlottesville Virginia Hospital Center-Arlington, Arlington

Washington State

Washington State has 45 hospitals participating in the Stop BSI project.

West Virginia

Bluefield Regional Medical Center, Bluefield Cabell Huntington Hospital, Huntington Camden-Clark Memorial Hospital,

Camden-Clark Memorial Hospital, Parkersburg Charleston Area Medical Center, Charleston Davis Memorial Hospital, Elkins Fairmont General Hospital, Fairmont Logan Regional Medical Center, Logan Monongalia General Hospital, Morgantown Ohio Valley Medical Center, Wheeling Princeton Community Hospital, Princeton Raleigh General Hospital, Beckley Reynolds Memorial Hospital, Glen Dale Saint Francis Hospital, Charleston St. Joseph's Hospital, Parkersburg, Parkersburg St. Mary's Medical Center, Huntington Thomas Memorial Hospital, South Charleston United Hospital Center, Bridgeport West Virginia University Hospitals, Morgantown Wetzel County Hospital, New Martinsville Wheeling Hospital, Wheeling

Wisconsin

Aurora Bay Care Medical Center, Green Bay Aurora Lakeland Medical Center, Elkhorn Aurora Medical Center, Oshkosh, Oshkosh Aurora Medical Center Kenosha, Kenosha Aurora Medical Center Manitowoc County, **Two Rivers** Aurora Medical Center Summit, Summit Aurora Medical Center Washington County, Hartford Aurora Memorial Hospital of Burlington, Burlington Aurora Sheboygan Memorial Medical Center, Sheboygan Aurora Sinai Medical Center, Milwaukee Aurora St. Luke's Medical Center, Milwaukee Aurora St. Luke's South Shore, Cudahy Aurora West Allis Medical Center, West Allis Beloit Memorial Hospital, Beloit Grant Regional Health Center, Lancaster Holy Family Memorial Medical Center, Manitowoc Kindred Hospital Milwaukee, Greenfield Mercy Medical Center, Oshkosh Meriter Hospital, Madison Ministry Saint Joseph's Hospital, Marshfield Ministry Saint Michael's Hospital, Stevens Point Ministry Saint Clare's Hospital, Weston Monroe Clinic, Monroe Oconomowoc Memorial Hospital, Oconomowoc

Sacred Heart Hospital, Eau Claire

- Sauk Prairie Memorial Hospital, Prairie du Sac
- St. Clare Hospital and Health Services, Baraboo
- St. Elizabeth Hospital, Appleton
- St. Joseph's Hospital, Chippewa Falls
- St. Mary's Hospital Medical Center, Green Bay
- St. Nicholas Hospital, Sheboygan

St. Vincent Hospital, Green Bay Stoughton Hospital, Stoughton University of Wisconsin Hospitals and Clinics, Madison Upland Hills Health, Dodgeville Vernon Memorial Healthcare, Viroqua Waukesha Memorial Hospital, Waukesha Wheaton Franciscan Healthcare, Franklin Wheaton Franciscan Healthcare St. Francis, Milwaukee