

District of Columbia
Healthcare-Associated Infections Report
January 2013 – December 2013



Prepared by
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Office of the Director
Division of Epidemiology - Disease Surveillance and Investigation
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BACKGROUND

Healthcare-associated infections (HAIs) are infections that develop in a patient during or shortly after receiving treatment for a separate medical or surgical condition in a healthcare setting. HAIs are a major public health problem. HAIs may result in significant patient morbidity and mortality; prolonged hospital stays; increased antimicrobial resistance; increased costs from additional diagnostic and therapeutic interventions, which add to costs already incurred by the patient's underlying disease; and undue emotional and psychological stress to patients and their families. According to the Centers for Disease Control (CDC), there were an estimated 1.7 million HAIs and 99,000 HAI-related deaths in the United States in 2002 (Klevens, 2007). The number of HAIs exceeded the number of cases of any currently notifiable disease and places HAIs among the top ten leading causes of death in the U.S. (Klevens, 2007; Deaths: leading causes for 2001, 2003). The economic burden of HAIs is substantial and increasing. Yet while HAIs are exceedingly costly, many are preventable. The overall annual direct medical costs of HAIs to U.S. hospitals ranges from an estimated \$35.7 billion to \$45 billion (adjusted to 2007 dollars). The benefits of infection control practices to prevent HAIs range from a low of \$5.7 to \$6.8 billion to a high of \$25.0 to \$31.5 billion (Scott, 2009).

Hospitals report HAI data using the CDC's National Healthcare Safety Network (NHSN). NHSN is a secure, online surveillance system that allows healthcare facilities to monitor patient safety and infection prevention measures, and enables hospitals, the District of Columbia Department of Health (DCDOH), and the CDC to concurrently monitor the same data. NHSN is the nation's most widely used HAI tracking system and is considered the standard system for HAI reporting. All states follow the same surveillance definitions and methods, thus providing for accurate national comparisons. In addition, NHSN is the tool used by medical facilities to comply with Centers for Medicare and Medicaid Services (CMS) infection reporting requirements. CMS has required hospitals in the Hospital Inpatient Quality Reporting (IQR) Program to report central line-associated blood stream infections (CLABSIs) in adult, pediatric, and neonatal intensive care units (ICUs) to NHSN since January 2011; catheter-associated urinary tract infections (CAUTIs) in ICUs since January 2012; surgical site infections (SSIs) related to inpatient colon surgery and inpatient abdominal hysterectomy procedures since January 2012; and methicillin-resistant *Staphylococcus aureus* (MRSA) and *Clostridium difficile* (*C. diff*) LabID events since January 2013. Long term acute care facilities (LTACs) were mandated to begin reporting CLABSIs and CAUTIS in all inpatient locations in October 2012. The DCDOH Health and Regulations Licensing Committee (HRLA) implemented the use of the NHSN system in the District for the reporting of CLABSIs and MRSA in 2010.

The following report summarizes the DCDOH healthcare-associated infection reporting activities from September 2010 through December 2013. This report provides CLABSI rates and standardized infection ratios (SIRs) by individual acute care hospital, ICU type, and at a state aggregate level. Rates are compared to national NHSN baseline data from 2012.

METHODS

Reporting

Healthcare-Associated Infections Reporting in the District of Columbia

The DCDOH has been engaged in HAI activities pursuant to an American Recovery and Reinvestment Act of 2009 (ARRA) grant through the CDC, in collaboration with the Agency for Healthcare Research and Quality (AHRQ) and the CMS. This grant requires adoption of national standards for data and technology usage to track HAIs. The Government Accounting Office (GAO) recommended that the Department of Health and Human Services (DHHS) improve central coordination of HAI efforts and identify priorities among the CDC guidelines. Central line-associated bloodstream infections (CLABSIs), catheter-associated urinary tract infections (CAUTIs), surgical site infections (SSIs), ventilator-associated pneumonias (VAPs), methicillin-resistant *Staphylococcus aureus* (MRSA), and *Clostridium difficile* (*C. diff*) in hospitals were identified as priority prevention targets in the DHHS HAI Action Plan issued in June 2009. The DCDOH identified CLABSIs and MRSA as priority prevention targets for surveillance in the District of Columbia in support of the DHHS Action Plan.

Reporting of Central Line-Associated Bloodstream Infections (CLABSIs)

The District of Columbia Medical Malpractice Amendment Act of 2006 mandates that any licensed healthcare provider or medical facility must report adverse events. These events include 28 “never events,” as defined by the National Quality Forum (NQF), plus one type of HAI, CLABSIs, to the DCDOH. HRLA is charged with analyzing these reports, identifying patterns or trends, recommending methods to reduce systematic adverse events, providing technical assistance to healthcare providers and medical facilities, and disseminating information and advice on best practices. Reporting of this data allows the DCDOH to monitor the infection rate within each institution, analyze trends, develop an accurate rate for the District and benchmark the District’s data against national data. Identifying trends in CLABSI rates will allow facilities to focus improvement efforts.

Since September 2010, 10 hospitals in the District have been monitoring CLABSIs in ICUs and reporting CLABSI events to NHSN. These hospitals are: Children’s National Medical Center (CNMC), Georgetown University Hospital (GUH), George Washington University Hospital (GWUH), Howard University Hospital (HUH), Providence Hospital (PROV), Sibley Memorial Hospital (SIB), Specialty Hospital of Washington DC – Capitol Hill (SHW-Capitol Hill), Specialty Hospital of Washington DC – Hadley (SHW-Hadley), United Medical Center (UMC), and Washington Hospital Center (WHC).

The types of ICUs reported by hospitals (referred to as critical care units in NHSN) include: adult, pediatric, and neonatal. These critical care units have been divided into sub-specialty units including: medical critical care units, medical cardiac critical care units, medical/surgical critical care units, neurosurgical critical care units, pediatric medical/surgical critical care units, pediatric cardiothoracic critical care units, surgical critical care units, surgical cardiothoracic critical care units, trauma critical care units, neonatal critical care units (level II/III and III), and long term acute care units.

Reporting of Methicillin-resistant Staphylococcus aureus (MRSA)

In the District of Columbia, MRSA LabID blood specimens (bloodstream infections) are reported to NHSN by hospitals facility-wide in inpatient units. This reporting, although not technically mandated based on the final rulemaking in the District, allows the Division of Epidemiology – Disease Surveillance and Investigation (DEDSI) to monitor trends and to evaluate the NHSN system in terms of MRSA reporting. All hospitals that report CLABSIs also report MRSA Lab ID bloodstream infections. In addition, a public psychiatric facility, Saint Elizabeth’s Hospital, also reports MRSA LabID infections.

Data Validation

Data reported to NHSN are validated using a variety of methods. As NHSN is a web-based data reporting and submission program, it includes validation routines for many data elements, which reduces many common data entry errors. Hospitals are able to view their data in real-time, and can view, edit, and analyze the information at any time. The DCDOH also ensures the accuracy of the data by conducting monthly internal validation of data entered into NHSN. A survey is sent to each facility, and results are compared to data downloaded from NHSN for the reporting month. Data that are missing, inconsistent, or duplicative are identified and investigated with hospital staff. Hospitals then verify and/or correct the data.

Risk Adjustment

Risk adjustment is a statistical tool used to fairly compare hospitals’ reporting of patient outcomes by adjusting for the differences in risk among specific patients. However, adjusted rates are still affected by clinical and infection control practices, risk factors of patients in varying types of care location, and surveillance methods. For example, a hospital that performs a greater number of high-risk surgeries or that serves a typically sicker population would most likely have a higher infection rate as compared to a hospital that performs more routine procedures on a healthier population. In addition, a low adjusted rate may reflect greater diligence with infection prevention practices, or may reflect less effective surveillance methods that lead to fewer detected infections. Alternatively a high adjusted rate may reflect failure to adhere to infection prevention practices or to more accurate and complete infection surveillance.

Stratification

CLABSI rates are risk-adjusted in NHSN by stratification by ICU type. The types of ICUs reported by hospitals (referred to as critical care units in NHSN) include: adult, pediatric, and neonatal. These critical care units have been divided into sub-specialty units including: medical critical care units, medical cardiac critical care units, medical/surgical critical care units, neurosurgical critical care units, pediatric medical/surgical critical care units, pediatric cardiothoracic critical care units, surgical critical care units, surgical cardiothoracic critical care units, trauma critical care units, neonatal critical care units (level II/III and III), and long term acute care units. Additional information is used for risk adjustment in NICUs, including birth weight category (≤ 750 g, 751-1000 g, 1001-1500 g, 1501-2500 g, >2500 g). CLABSI rates in this report are compared to pooled national data reported from U.S. hospitals to NHSN from 2012.

Standardized Infection Ratio (SIR)

The SIR is an indirect standardization method for summarizing the HAI experience across any number of stratified groups of data. Presenting data as a SIR allows for comparing of data across risk groups, procedures, and hospitals to gain a better understanding of the incidence and patterns of HAIs while adjusting for underlying patient or hospital factors that may affect the occurrence of infections. The standardization method accounts for differences in the risk of CLABSIs among different critical care units or, in the case of neonatal ICUs, among different birth weight categories. The SIR is calculated by dividing the number of observed infections by the number of statistically predicted infections based on the NHSN standard population and appropriate patient and facility-level risk adjustment. The predicted number is calculated by multiplying the facility's number of central line days for each stratum of data (i.e., unit type for adult/pediatric ICUs, or unit type/birth weight category for NICUs) by the NHSN pooled mean CLABSI rate (divided by 1,000) for that stratum. The baseline used in this report to calculate the SIR is based on data reported from U.S. hospitals from 2006-2008.

The SIR provides a basis for comparison between how many infections occurred and how many were expected to occur based on the experience of a standard population. A confidence interval is calculated to determine whether the difference between observed and expected infections is statistically significant. A SIR of 1.0 means the observed number of infections is similar, or equal, to the number of predicted infections. A SIR above 1.0 means that there were a greater number of infections than predicted. For example, if the CLABSI SIR for a facility is 1.5, then the facility experienced 50% more infections than predicted. A SIR below 1.0 means that there were fewer infections than predicted. For example, if the CLABSI rate for a facility is 0.30, then the facility experienced 70% fewer infections than predicted.

RESULTS

This report highlights CLABSI and MRSA infections reported to NHSN by hospitals within the District of Columbia from January 2013 to December 2013, and analyzes trends in the data since reporting began in September 2010.

CLABSI Rates

CLABSIs are not reported facility-wide throughout the hospital, but rather by selected ICUs, which provide intensive observation, diagnosis, and therapeutic procedures for adults and/or children who are critically ill. ICUs are defined by the types of patients cared for in the unit. In 2013, ten hospitals reported CLABSIs from one to several types of ICUs as follows: medical (3), medical/surgical (6), medical/cardiac (1), neurosurgical (1), surgical cardiothoracic (2), surgical (4), pediatric cardiothoracic (1) and pediatric medical/surgical (2). Four (4) LTAC units also provided data. Newborns may need different levels of intensive care; therefore NICUs are organized with personnel and equipment to provide continuous life support and comprehensive care for extremely high-risk newborn infants and for those with complex and critical illness. NICUs are designated into three types: Level I, Level II, and Level III. CLABSIs and umbilical catheter-associated blood stream infections (UCABSIs) are collected from all NICUs and rates are calculated by stratified birth weight categories.

CLABSI rates stratified by location type from 2010 to 2013 are summarized in Table 1. Rates represent the number of CLABSI infections per 1,000 central line (CL) days. The percent change in the CLABSI rate from the previous year is calculated, and significant changes are highlighted. Rates are compared to the 2012 national baseline, with p-values provided to indicate the statistical significance of hospitals' CLABSI rates as compared to the national baseline. Significant differences are highlighted.

Among all adult and pediatric ICUs reporting in 2013, one medical/surgical ICU and one surgical ICU reported a CLABSI rate significantly higher than the national baseline, while one LTAC ICU and both LTAC wards reported rates significantly lower than the national baseline. A significantly increased rate comparing 2012 to 2013 was seen in only one surgical ICU, while a significantly decreased rate was seen in one medical ICU. All other ICUs saw no significant changes in CLABSI rates from 2012 to 2013. Among neonatal ICUs, two hospitals saw significantly higher rates as compared to the national baseline in at least one birth weight category, while one hospital saw a significantly lower rate than the national baseline.

TABLE 1: Central Line Associated Blood Stream (CLABSI) rate by Hospital and ICU Location, District of Columbia, 2010-2013

	Year	# CLABSIs	# CL Days	CLABSI Rate	p-value	Percent Change (%)	National Baseline Comparison
Georgetown							
Medical	2013	4	3265	1.225	1.000	-20.6	Similar
	2012	6	3889	1.543	0.600	-30.6	Similar
	2011	8	3599	2.223	0.136	+39.8	Similar
	2010	2	1258	1.590	0.689	--	Similar
Pediatric Medical/Surgical	2013	1	657	1.522	0.851	-42.4	Similar
	2012	3	1136	2.641	0.306	+7.0	Similar
	2011	3	1215	2.469	0.352	--	Similar
	2010	0	344	0.000	0.612	--	Similar
Neurosurgical	2013	3	1245	2.410	0.232	+203.1	Similar
	2012	1	1258	0.795	0.813	-63.0	Similar
	2011	2	986	2.028	0.420	-10.6	Similar
	2010	1	441	2.268	0.490	--	Similar
Surgical	2013	1	3643	0.274	0.085	--	Similar
Sibley							
Medical/Surgical	2013	3	854	3.513	0.056	+34.2	Similar
	2012	3	1146	2.618	0.118	-20.7	Similar
	2011	3	909	3.300	0.066	--	Similar
	2010	0	434	0.000	0.667	--	Similar
Children's Hospital							
Pediatric Cardiothoracic	2013	5	5654	0.884	0.307	-48.8	Similar
	2012	9	5218	1.725	0.530	+16.9	Similar
	2011	5	3390	1.475	0.863	-22.7	Similar
	2010	2	1049	1.907	0.620	--	Similar
Pediatric Medical/Surgical	2013	5	4459	1.121	0.628	+31.9	Similar
	2012	4	4705	0.850	0.300	-47.6	Similar
	2011	7	4313	1.623	0.701	--	Similar
	2010	0	1390	0.000	0.138	--	Similar
GWU							
Medical/Surgical	2013	23	6740	3.412	0.000	+35.9	HIGHER
	2012	15	5973	2.511*	0.013	+126.0	HIGHER
	2011	9	8104	1.111	0.802	-49.1	Similar
	2010	5	2291	2.182	0.222	--	Similar
Howard							
Surgical Cardiothoracic	2013	0	195	0.000	0.848	--	Similar
	2012	2	288	6.944	0.027	--	HIGHER
Surgical Cardiothoracic	2013	2	661	3.026	0.128	-15.4	Similar
	2012	3	839	3.576	0.041	--	Similar
	2011	0	1019	0.000	0.423	--	Similar
	2010	1	465	2.151	0.385	--	Similar
Medical	2013	3	1702	1.763*	0.539	-79.9	Similar
	2012	19	2161	8.792	0.000	--	HIGHER
	2011	0	2194	0.000	0.062	--	Similar

	2010	2	855	2.339	0.392	--	Similar
UMC							
Medical/Surgical	2013	0	813	0.000	0.468	--	Similar
	2012	0	714	0.000	0.513	--	Similar
	2011	0	849	0.000	0.453	--	Similar
	2010	0	175	0.000	0.849	--	Similar
Medical/Surgical	2013	0	842	0.000	0.456	--	Similar
	2012	2	779	2.567	0.203	--	Similar
	2011	0	723	0.000	0.509	--	Similar
	2010	0	269	0.000	0.778	--	Similar
Hadley							
LTAC ICU	2013	3	10195	0.294	0.000	-40.1	LOWER
	2012	7	14261	0.491	0.000	-73.8	LOWER
	2011	24	12794	1.876	0.499	+20.8	Similar
	2010	7	4508	1.553	0.957	--	Similar
LTAC Ward	2013	2	10884	0.184	0.001	--	LOWER
LTAC Ward	2013	5	10884	0.459	0.042	--	LOWER
Providence							
Medical/Surgical	2013	3	2032	1.476	0.697	+28.0	Similar
	2012	3	2602	1.153	0.984	--	Similar
	2011	0	3014	0.000	0.025	--	LOWER
	2010	0	950	0.000	0.312	--	Similar
WHC							
Medical/Cardiac	2013	3	2551	1.176	0.788	-5.3	Similar
	2012	3	2415	1.242	0.721	-39.3	Similar
	2011	5	2445	2.045	0.168	--	Similar
	2010	0	736	0.000	0.461	--	Similar
Medical	2013	5	2669	1.873	0.381	+24.6	Similar
	2012	4	2661	1.503	0.687	-50.0	Similar
	2011	9	2995	3.005	0.022	-51.6	HIGHER
	2010	6	966	6.211	0.002	--	HIGHER
Medical/Surgical	2013	3	2176	1.379	0.780	-17.6	Similar
	2012	4	2391	1.673	0.514	-57.5	Similar
	2011	11	2796	3.934*	0.001	--	HIGHER
	2010	0	908	0.000	0.328	--	Similar
Surgical A	2013	4	875	4.571*	0.026	--	HIGHER
	2012	0	2029	0.000	0.090	--	LOWER
Surgical B	2013	5	3089	1.619	0.474	+151.0	Similar
	2012	2	3102	0.645	0.407	-64.5	Similar
	2011	6	3301	1.818	0.308	-31.0	Similar
	2010	3	1138	2.636	0.204	--	Similar
Surgical C	2013	6	3182	1.886	0.273	-4.0	Similar
	2012	6	3054	1.965	0.237	-30.9	Similar
	2011	9	3167	2.842	0.021	+11.0	HIGHER
	2010	3	1172	2.560	0.218	--	Similar
Trauma	2012	1	404	2.475	0.614	-23.0	Similar
	2011	5	1556	3.213	0.151	--	Similar
	2010	0	674	0.000	0.340	--	Similar

Capitol Hill							
LTAC ICU	2013	15	10312	1.455	0.215	-19.2	Similar
	2012	21	11657	1.801*	0.021	-60.6	HIGHER
	2011	54	11819	4.569	0.000	+80.6	HIGHER
	2010	10	3952	2.530	0.014	--	HIGHER

NHSN data reported as of February 20, 2014.

Source of aggregate data: Am J Infect Control 2013;41:1148-66

CL days: central line days. Rates are per 1,000 central line days.

“ * ” Indicates the rate for the reporting year is significantly higher than the rate reported the previous year.

“ * ” Indicates the rate for the reporting year is significantly lower than the rate reported the previous year.

Red highlighting indicates rate for the reporting period is significantly higher than the 2012 national pooled mean rate.

Green highlighting indicates rate for reporting period is significantly lower than the 2012 national pooled mean rate.

Medical Critical Care Units

Major teaching hospitals

The 2012 NHSN national pooled mean for medical critical care units in major teaching hospitals was 1.3 CLABSIs per 1,000 CL days. In 2013, the CLABSI rates for medical critical care units at Georgetown (1.225, p=1.000), Howard (1.763, p=0.539), and Washington Hospital Center (1.873, p=0.381) were similar to the national mean.

While the CLABSI rates at Georgetown and WHC have not significantly changed since 2010, the rate at Howard decreased significantly from 8.792 CLABSIs per 1,000 CL days in 2012 to 1.763 CLABSIs per 1,000 CL days in 2013 (p=0.003).

Medical/Surgical Critical Care Units

Major teaching hospitals

The 2012 NHSN national pooled mean for medical/surgical critical care units in major teaching hospitals was 1.2 CLABSIs per 1,000 CL days. In 2013, both Providence (1.476, p=0.697) and WHC (1.379, p=0.780) reported CLABSI rates similar to the national mean, while George Washington University reported a rate significantly higher than the national mean (3.412, p<0.000).

While the CLABSI rate in 2011 at Providence was significantly lower than the national pooled mean, the rate has not significantly changed since 2010. The rate at GWU significantly increased from 1.1 CLABSIs per 1,000 CL days in 2011 to 2.5 CLABSIs per 1,000 CL days in 2012, and was significantly higher than the national mean in both 2012 (p=0.013) and 2013 (p<0.000). The rate at WHC significantly increased from 0.0 in 2010 to 3.9 CLABSIs per 1,000 CL days in 2011, and was significantly higher than the national mean in 2011 (p=0.001).

Non-major teaching hospitals

The 2012 NHSN national pooled mean for medical/surgical ICUs in non-major teaching hospitals was 0.9 CLABSIs per 1,000 CL days. United Medical Center reported no CLABSIs in both of their medical/surgical units in 2013. The rate at Sibley was 3.513 CLABSIs per 1,000 CL days, and was borderline significant (p=0.056).

Medical/surgical unit CCCA at UMC reported no infections from 2010 to 2013. Unit CCA reported no infections for all years except 2012 (2.567, p=0.203). While reporting no infections, the rate was not statistically significantly different from the national mean. And while the rate at Sibley increased from 2012 to 2013, it has not significantly changed since 2010.

Neurosurgical Critical Care Unit

The 2012 NHSN national pooled mean for neurosurgical critical care units was 1.1 CLABSIs per 1,000 CL days. The CLABSI rate in 2013 at Georgetown, the only hospital reporting data from a neurosurgical ICU in the District, was 2.4 per 1,000 CL days, and was not statistically significantly different from the national mean. Although this rate increased from 2012 to 2013, it has not significantly changed since 2010.

Surgical Critical Care Units

The 2012 national pooled mean for surgical critical care units was 1.2 CLABSIs per 1,000 CL days. Georgetown (0.274, $p=0.85$) and Units 20192 (1.619, $p=0.474$) and 20193 (1.886, $p=0.273$) at WHC were similar to the national mean. The rate for Unit 20150 at WHC, however, increased significantly from 2012 to 2013, and was higher than the national mean in 2013 (4.571, $p=0.026$). While the rate for Unit 20192 was significantly higher than the national mean in 2011 (2.842, $p=0.021$), the rate in both Units 20192 and 20193 have not significantly changed since 2010.

Surgical Cardiothoracic Critical Care Units

Howard reported data for two surgical cardiothoracic units in 2013. The 2012 pooled national mean was 0.8 per 1,000 CL days. The rate in 2013 for both units CCU (0.0, $p=0.848$) and SICU/CCU (3.026, $p=0.128$) was similar to the national mean. The rate for the CCU, however, was significantly higher than the national mean in 2012 (6.944, $p=0.027$). The rate for the SICU/CCU has not significantly changed since 2010.

Medical Cardiac Critical Care Unit

The 2012 national pooled mean for medical cardiac ICUs was 1.1 CLABSIs per 1,000 CL days. In 2013, the rate at WHC, the only hospital reporting data from a medical cardiac ICU in the District, was 1.176 CLABSIs per 1,000 CL days ($p=0.788$). The rate has not significantly differed from the national rate nor significantly changed since 2010.

Pediatric Cardiothoracic Critical Care Unit

Children's National Medical Center is the only hospital reporting data from a pediatric cardiothoracic unit in the District. In 2013, Children's reported 0.884 CLABSIs per 1,000 CL days ($p=0.307$), a rate similar to the national pooled mean of 1.4 CLABSIs per 1,000 CL days. Although Children's rate did decrease from 2012 to 2013, it did not change significantly nor differ significantly from the national mean during this time period.

Pediatric Medical/Surgical Critical Care Units

The 2012 national pooled mean for pediatric medical/surgical ICUs was 1.4 CLABSIs per 1,000 CL days. In 2013, both Georgetown (1.522, $p=0.851$) and Children's (1.121, $p=0.628$) reported rates similar to the national mean. The rates for these two hospitals have not changed significantly nor did they differ significantly from the national mean from 2010 to 2013.

Long Term Acute Care

Specialty Hospital of Washington-Hadley and Specialty Washington of Hospital-Capitol Hill both report CLABSI rates from their LTAC ICUs. The 2012 national pooled mean for LTAC ICUs was 1.6 CLABSIs per 1,000 CL days. Capitol Hill's rate (1.455, $p=0.215$) was similar to the national mean, while Hadley's rate (0.294, $p<0.000$) was significantly lower than the national mean. From 2010-2012, Capitol Hill's CLABSI rate was significantly higher than the national mean. The rate did decrease significantly, however, from 4.6 per 1,000 CL days in 2011 to 1.8 per 1,000 CL days in 2012. While Hadley's rate did not change

significantly from 2010 to 2013, the rates in both 2012 (0.491, $p < 0.000$) and in 2013 were significantly lower than the national mean.

SHW-Hadley also reported CLABI rates for two LTAC wards in 2013. The rate for both 2W (0.184, $p = 0.001$) and 2E (0.459, $p = 0.042$) were significantly lower than the national mean of 1 CLABSIs per 1,000 CL days.

Neonatal Intensive Care Units

Table 2 summarizes the CLABSIs rates reported by NICUs in 2013. Because lower birth weight babies are more susceptible to CLABSIs than higher birth weight babies, rates are stratified into five birth weight categories. Children's reported no CLABSIs for birth weight category A, which was significantly lower than the national pooled mean of 2.5 per 1,000 CL days. Howard reported a rate of 10.8 per 1,000 CL days for birth weight category B, which was significantly higher than the national mean of 1.6 per 1,000 CL days ($p = 0.040$). Providence reported one CLABSIs for the one CL day reported for birth weight category C, which was significantly higher than the national mean of 1.1 per 1,000 CL days ($p = 0.001$). All other hospitals and birth weight categories reported were similar to the national means.

TABLE 2: Central Line Associated Blood Stream Infection (CLABSIs) Rate in Neonatal Intensive Care Units by Hospital, District of Columbia, 2013

	Birth weight Code	# CLABSIs	# CL Days	CLABSIs Rate	NHSN Pooled Mean	p-value	National Baseline Comparison
Georgetown							
	A	1	430	2.326	2.3	0.876	Similar
	B	0	329	0.000	1.6	0.596	Similar
	C	0	359	0.000	1.1	0.667	Similar
	D	0	326	0.000	0.6	0.811	Similar
	E	0	519	0.000	0.8	0.671	Similar
Children's							
	A	0	1927	0.000	2.5	0.008	LOWER
	B	1	1195	0.837	2.0	0.423	Similar
	C	0	1125	0.000	0.9	0.353	Similar
	D	0	1103	0.000	0.6	0.510	Similar
	E	0	2831	0.000	0.6	0.184	Similar
GWU							
	A	1	505	1.980	2.5	0.910	Similar
	B	0	157	0.000	2.0	0.736	Similar
	C	0	323	0.000	0.9	0.741	Similar
	D	0	31	0.000	0.6	0.981	Similar
	E	0	30	0.000	0.6	0.982	Similar
Howard							
	A	0	210	0.000	2.3	0.622	Similar
	B	2	185	10.811	1.6	0.040	HIGHER
	C	0	71	0.000	1.1	0.923	Similar
	D	0	58	0.000	0.6	0.963	Similar
	E	0	63	0.000	0.8	0.953	Similar
Providence							
	A	0	0	--	2.3	--	--
	B	0	0	--	1.6	--	--

	C	1	1	1000	1.1	0.001	HIGHER
	D	0	6	0.000	0.6	0.996	Similar
	E	0	0	--	0.8	--	--
WHC							
	A	0	251	0.000	2.3	0.567	Similar
	B	0	325	0.000	1.6	0.595	Similar
	C	0	459	0.000	1.1	0.596	Similar
	D	0	125	0.000	0.6	0.923	Similar
	E	0	111	0.000	0.8	0.918	Similar

NHSN data reported as of February 20, 2014.

Source of aggregate data: Am J Infect Control 2013;41:1148-66.

CL days: central line days. Rates are per 1,000 central line days.

Red highlighting indicates rate for the reporting period is significantly higher than the 2012 national pooled mean rate.

Green highlighting indicates rate for reporting period is significantly lower than the 2012 national pooled mean rate.

CLABSI Standardized Infection Ratios (SIRs)

Table 3 presents hospital-specific SIRs by ICU type, and table 4 presents hospital-specific facility-wide SIRs. In addition to facility-specific SIRs, aggregate data for all reporting hospitals in the District are presented. In both tables, the percent change in the CLABSI SIR from the previous year is calculated, and significant changes are highlighted. Facility-specific SIRs are compared to the aggregate District SIRs both by ICU and facility-wide. Facility-specific and aggregate District SIRs are compared to the 2006-2008 national baselines. P-values are provided to indicate the statistical significance of the comparison. Significant differences are highlighted.

The facility-wide CLABSI SIRs combine results across the different types of ICUs, showing the average performance of each hospital for CLABSIs (Table 4). The SIR describes the number of CLABSI infections observed as compared to the number of CLABSI infections expected based on the national baseline. In 2013, the District SIR was 0.5 ($p < 0.001$), indicating that there were 50% fewer infections than expected. The District reported significantly fewer infections than expected each year from 2010 to 2013. In addition, the District SIR significantly decreased from 2012 to 2013.

TABLE 3: Standardized Infection Ratio (SIR) by Hospital and ICU Location, District of Columbia, 2010-2013

	Year	Observed Infections	Expected Infections	SIR	p-value	Percent Change (%)	DC Comparison	National Baseline Comparison
Georgetown								
Medical	2013	4	8.489	0.471	0.1052	-20.6	Similar	Similar
	2012	6	10.111	0.593	0.1863	-31.6	Similar	Similar
	2011	8	9.357	0.855	0.6933	+39.9	Similar	Similar
	2010	2	3.271	0.611	0.5275	--	Similar	Similar
Pediatric Medical/Surgical	2013	1	1.971	0.507	0.5532	-42.4	Similar	Similar
	2012	3	3.408	0.880	0.8948	+6.9	Similar	Similar
	2011	3	3.645	0.823	0.8006	--	Similar	Similar
Neurosurgical	2010	0	1.032	0.000	0.3563	--	--	Similar
	2013	3	3.113	0.964	1.000	-203.1	--	Similar
	2012	1	3.145	0.318	0.2216	-60.1	--	Similar
	2011	2	2.465	0.811	0.8474	-10.6	--	Similar
Surgical	2010	1	1.103	0.907	1.000	--	--	Similar
Surgical	2013	1	8.380	0.119	0.0024	--	Similar	LOWER
Sibley								
Medical/Surgical	2013	3	1.281	2.342	0.1798	+34.2	Similar	Similar
	2012	3	1.719	1.745	0.3439	-20.7	Similar	Similar
	2011	3	1.364	2.200	0.2074	--	Similar	Similar
	2010	0	0.651	--	--	--	--	--
Children's Hospital								
Pediatric Cardiothoracic	2013	5	18.658	0.268	0.0002	-48.8	--	LOWER
	2012	9	17.219	0.523	0.0344	+17.0	--	LOWER
	2011	5	11.187	0.447	0.0468	-22.7	--	LOWER
	2010	2	3.462	0.578	0.4680	--	--	Similar
Pediatric Medical/Surgical	2013	5	13.377	0.374	0.0112	+32.2	Similar	LOWER
	2012	4	14.115	0.283	0.0021	-47.7	Similar	LOWER
	2011	7	12.939	0.541	0.0826	--	Similar	Similar
	2010	0	4.170	0.000	0.0155	--	--	LOWER
GWU								
Medical/Surgical	2013	23	14.154	1.625	0.0292	+35.9	Similar	HIGHER
	2012	15	12.543	1.196*	0.4767	+126.1	Similar	Similar
	2011	9	17.018	0.529	0.0383	-49.1	Similar	LOWER
	2010	5	4.811	1.039	0.8767	--	Similar	Similar
Howard								
Surgical Cardiothoracic	2013	0	0.273	--	--	--	--	--
	2012	2	0.403	--	--	--	--	--
Surgical Cardiothoracic	2013	2	0.925	--	--	--	--	--
	2012	3	1.175	2.554	0.1467	--	Similar	Similar
	2011	0	1.427	0.000	0.2401	--	--	Similar
	2010	1	0.651	--	--	--	--	--
Medical	2013	3	4.425	0.678*	0.5372	-80.0	Similar	Similar
	2012	19	5.617	3.382*	0.0000	--	HIGHER	HIGHER
	2011	0	5.704	0.000	0.0033	--	LOWER	LOWER
	2010	2	2.223	0.900	0.9656	--	Similar	Similar
UMC								
Medical/Surgical	2013	0	1.220	0.000	0.2954	--	Similar	Similar
	2012	0	1.071	0.000	0.3427	--	Similar	Similar
	2011	0	1.274	0.000	0.2799	--	Similar	Similar
	2010	0	0.263	--	--	--	--	--

Medical/Surgical	2013	0	1.263	0.000	0.2828	--	Similar	Similar
	2012	2	1.169	1.712	0.4397	--	Similar	Similar
	2011	0	1.085	0.000	0.3381	--	Similar	Similar
	2010	0	0.404	--	--	--	--	--
Providence								
Medical/Surgical	2013	3	4.267	0.703	0.5846	+28.1	Similar	Similar
	2012	3	5.464	0.549	0.2964	--	Similar	Similar
	2011	0	6.329	0.000	0.0018	--	LOWER	LOWER
	2010	0	1.995	0.000	0.1360	--	Similar	Similar
WHC								
Medical/Cardiac	2013	3	5.102	0.588	0.2295	-5.3	--	Similar
	2012	3	4.830	0.621	0.9047	-39.2	--	Similar
	2011	5	4.890	1.022	0.4294	--	--	Similar
	2010	0	1.472	0.000	0.3673	--	--	Similar
Medical	2013	5	6.939	0.721	0.4871	+24.7	Similar	Similar
	2012	4	6.919	0.578	0.2667	-50.0	Similar	Similar
	2011	9	7.787	1.156	0.6351	-51.6	Similar	Similar
	2010	6	2.512	2.389	0.0573	--	Similar	Similar
Medical/Surgical	2013	3	4.570	0.657	0.4966	-17.6	Similar	Similar
	2012	4	5.021	0.797	0.6989	-57.4	Similar	Similar
	2011	11	5.872	1.873*	0.0549	--	HIGHER	HIGHER
	2010	0	1.907	0.000	0.1486	--	Similar	Similar
Surgical A	2013	4	2.013	1.988*	0.1989	--	HIGHER	Similar
	2012	0	4.667	0.000	0.0094	--	LOWER	LOWER
Surgical B	2013	5	7.105	0.704	0.4512	+151.4	Similar	Similar
	2012	2	7.135	0.280	0.0333	-64.6	Similar	LOWER
	2011	6	7.592	0.790	0.5971	-31.1	Similar	Similar
	2010	3	2.617	1.146	0.7537	--	Similar	Similar
Surgical C	2013	6	7.319	0.820	0.6653	-4.0	Similar	Similar
	2012	6	7.024	0.854	0.7437	-30.9	Similar	Similar
	2011	9	7.284	1.236	0.5081	+11.1	Similar	Similar
	2010	3	2.696	1.113	0.7902	--	Similar	Similar
Trauma	2012	1	1.454	0.688	0.8067	-23	--	Similar
	2011	5	5.602	0.893	0.8535	--	--	Similar
	2010	0	2.426	0.000	0.0884	--	--	Similar
District of Columbia								
Medical/Cardiac	2013	3	5.102	0.588	0.3673	-5.3	--	Similar
	2012	3	4.830	0.621	0.4294	-40.3	--	Similar
	2011	5	4.890	1.022	0.9047	--	--	Similar
	2010	0	1.472	0.000	0.2295	--	--	Similar
Medical	2013	12	19.854	0.604*	0.0647	-52.8	--	Similar
	2012	29	22.649	1.280	0.1916	+72.0	--	Similar
	2011	17	22.849	0.744	0.2158	-40.4	--	Similar
	2010	10	8.005	1.249	0.4687	--	--	Similar
Medical/Surgical	2013	32	26.754	1.196	0.3123	+19.6	--	Similar
	2012	27	26.987	1.000	0.9727	+43.3	--	Similar
	2011	23	32.941	0.698	0.0729	+39.9	--	Similar
	2010	5	10.030	0.499	0.0947	--	--	Similar
Surgical	2013	12	27.469	0.437	0.0011	-41.1	--	LOWER
	2012	12	16.171	0.742	0.3008	-26.4	--	Similar
	2011	15	14.876	1.008	0.9409	-10.7	--	Similar
	2010	6	5.313	1.129	0.7237	--	--	Similar
Neurosurgical	2013	3	3.113	0.964	1.0000	+203.1	--	Similar
	2012	1	3.145	0.318	0.2216	-60.8	--	Similar
	2011	2	2.465	0.811	0.8474	-10.6	--	Similar
	2010	1	1.103	0.907	1.0000	--	--	Similar

Surgical Cardiothoracic	2013	2	1.198	1.669	0.4570	-47.3	--	Similar
	2012	5	1.578	3.169*	0.0281	--	--	HIGHER
	2011	0	1.427	0.000	0.2401	--	--	Similar
	2010	1	0.651	--	--	--	--	--
Pediatric Cardiothoracic	2013	5	18.658	0.268	0.0002	-48.8	--	LOWER
	2012	9	17.219	0.523	0.0344	+17.0	--	LOWER
	2011	5	11.187	0.447	0.0468	+22.7	--	LOWER
	2010	2	3.462	0.578	0.4680	--	--	Similar
Pediatric Medical/Surgical	2013	6	15.348	0.391	0.0083	-2.0	--	LOWER
	2012	7	17.523	0.399	0.0054	-33.8	--	LOWER
	2011	10	16.584	0.603	0.0919	--	--	Similar
	2010	0	5.202	0.000	0.0055	--	--	LOWER
Trauma	2012	1	1.454	0.688	0.8067	-23.0	--	Similar
	2011	5	5.602	0.893	0.8535	+335.6	--	Similar
	2010	2	9.775	0.205	0.0039	--	--	LOWER

NHSN data reported as of February 20, 2014.

Source of aggregate data: NHSN Report, Am J Infect Control 2009;37:783-805.

SIR values only calculated if number expected ≥ 1 .

"*" Indicates the rate for the reporting year is significantly higher than the rate reported the previous year.

"*" Indicates the rate for the reporting year is significantly lower than the rate reported the previous year.

Red highlighting indicates rate for the reporting period is significantly higher than the 2013 DC SIR or the national 2006-2008 SIR of 1.0.

Green highlighting indicates rate for reporting period is significantly lower than the 2013 DC SIR or the national 2006-2008 SIR of 1.0.

TABLE 4: Standardized Infection Ratio (SIR) by Hospital, District of Columbia, 2010-2013

	Year	Observed Infections	Expected Infections	SIR	p-value	Percent Change	DC Comparison	National Baseline Comparison
Georgetown								
	2013	10	26.469	0.378	0.0003	-37.0	Similar	LOWER
	2012	10	16.664	0.600	0.0884	-28.6	Similar	Similar
	2011	13	15.467	0.840	0.5507	+51.4	Similar	Similar
	2010	3	5.405	0.555	0.3071	--	Similar	Similar
Sibley								
	2013	3	1.281	2.342	0.1798	+34.2	HIGHER	Similar
	2012	3	1.719	1.745	0.3439	-20.7	Similar	Similar
	2011	3	1.364	2.200	0.2074	--	Similar	Similar
	2010	0	0.651	--	--	--	--	--
Children's Hospital								
	2013	11	50.309	0.219	0.0000	-34.6	LOWER	LOWER
	2012	17	50.819	0.335	0.0000	-12.5	LOWER	LOWER
	2011	18	47.035	0.383	0.0000	+61.6	LOWER	LOWER
	2010	4	16.883	0.237	0.0002	--	Similar	LOWER
GWU								
	2013	24	17.481	1.373	0.1326	+12.5	HIGHER	Similar
	2012	17	13.939	1.220*	0.4073	+120.2	Similar	Similar
	2011	11	19.847	0.554	0.0348	-40.9	Similar	LOWER
	2010	5	5.334	0.937	0.9415	--	Similar	Similar
Howard								
	2013	7	7.252	0.965*	0.9742	-67.8	Similar	Similar
	2012	25	8.350	2.994*	0.0000	+1137.1	HIGHER	HIGHER
	2011	2	8.265	0.242	0.0136	-76.8	Similar	LOWER
	2010	3	2.874	1.044	0.8726	--	Similar	Similar
UMC								
	2013	0	2.483	0.000	0.0835	--	Similar	Similar
	2012	2	2.240	0.893	0.9572	--	Similar	Similar
	2011	0	2.358	0.000	0.0946	--	Similar	Similar
	2010	0	0.666	--	--	--	--	--
Providence								
	2013	4	4.280	0.935	0.9550	+74.4	Similar	Similar
	2012	3	5.598	0.536	0.2734	--	Similar	Similar
	2011	0	6.548	0.000	0.0014	--	LOWER	LOWER
	2010	0	2.029	0.000	0.1315	--	Similar	Similar
WHC								
	2013	22	38.880	0.566	0.0036	-13.1	Similar	LOWER
	2012	25	38.375	0.651	0.0233	-36.2	Similar	LOWER
	2011	45	44.089	1.021	0.8720	36.9	HIGHER	Similar
	2010	12	16.091	0.746	0.3097	--	Similar	Similar
District of Columbia								
	2013	81	148.43	0.546*	0.0000	-26.3	--	LOWER
	2012	102	137.70	0.741	0.0018	+16.7	--	LOWER
	2011	92	144.97	0.635	0.0000	+17.4	--	LOWER
	2010	27	49.934	0.541	0.0004	--	--	LOWER

NHSN data reported as of February 20, 2014.

Source of aggregate data: NHSN Report, Am J Infect Control 2009;37:783-805.

SIR values only calculated if number expected ≥1.

“*” Indicates the rate for the reporting year is significantly higher than the rate reported the previous year.

“*” Indicates the rate for the reporting year is significantly lower than the rate reported the previous year.

Red highlighting indicates rate for the reporting period is significantly higher than the 2013 DC SIR or the national 2006-2008 SIR of 1.0.

Green highlighting indicates rate for reporting period is significantly lower than the 2013 DC SIR or the national 2006-2008 SIR of 1.0.

Descriptive Epidemiology of CLABSIs

From January 1, 2013 to December 31, 2013, there were 148 reported cases of CLABSIs in District hospitals. Figure 1 shows the age range of patients diagnosed with a CLABSIs during this time period. The age at diagnosis ranged from 4 days to 100 years, with a mean age of 52 years. The group aged 45 to 64 years reported the most number of CLABSI infections, followed by the group aged 65 to 84 years. Figure 2 shows the percentage of reported CLABSI cases by gender. More males (59%; n=87) were diagnosed with a CLABSI than females (41%; n=61) during the indicated time period.

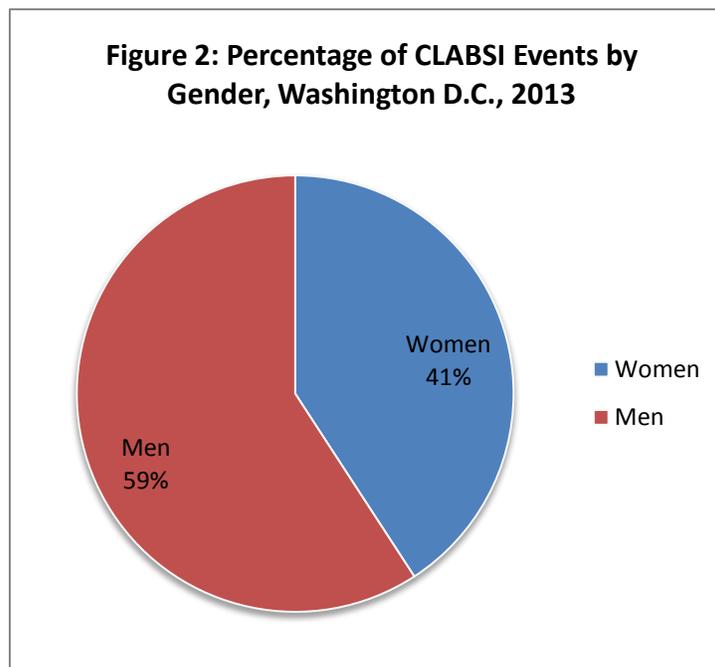
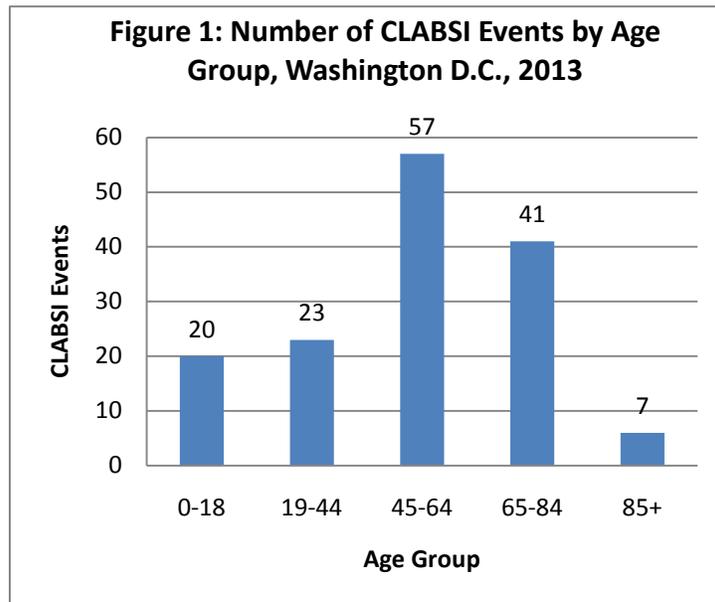


TABLE 5: Frequency of Pathogens Associated with CLABSI Infections, District of Columbia, 2013

Pathogen	Frequency	Percent
ENTFS	15	10.14%
CA	14	9.46%
SA	14	9.46%
PA	11	7.43%
EC	9	6.08%
ENTFM	9	6.08%
CG	8	5.41%
KP	8	5.41%
SE	8	5.41%
CP	6	4.05%
KLEPNE	5	3.38%
CT	4	2.70%
ENC	4	2.70%
SM	4	2.70%
STEMA	3	2.03%
EA	2	1.35%
PANOT	2	1.35%
PM	2	1.35%
ACBA	1	0.68%
ACLW	1	0.68%
BF	1	0.68%
CANLU	1	0.68%
CD	1	0.68%
CITKO	1	0.68%
CLORA	1	0.68%
CNS	1	0.68%
CPS	1	0.68%
ENTSP	1	0.68%
GARSP	1	0.68%
GRANSP	1	0.68%
KO	1	0.68%
MYCMUC	1	0.68%
PREBI	1	0.68%
PRPAC	1	0.68%
SACCER	1	0.68%
SS	1	0.68%
STAHOM	1	0.68%
STRVM	1	0.68%
Total	148	100%

Table 5 shows the total number of CLABSI cases reported in District hospitals in 2013 by pathogen type. The most common pathogen associated with CLABSI cases from the District hospitals reporting infections to NHSN was *Enterococcus faecalis* (10.14%), followed by *Candida albicans* (9.46%), *Staphylococcus aureus* (9.46%), and *Pseudomonas aeruginosa* (7.43%).

MRSA Bloodstream Infections

Methicillin-Resistant *Staphylococcus aureus* (MRSA) is included in Multidrug Resistant Organism and *Clostridium difficile* LabID Event Reporting module (the MDRO/CDI module). MRSA includes *S. aureus* cultured from any specimen that tests oxacillin-resistant, cefoxitin-resistant, or methicillin resistant by standard susceptibility testing methods or by a laboratory test that is FDA-approved for MRSA detection from isolated colonies. The NHSN defines a MRSA LabID event as a “MRSA positive blood specimen for a patient in a location with no prior MRSA positive blood specimen result within 14 days for the patient and location, even across calendar months.” Only specimens obtained for clinical decision making that test positive for an MDRO are included. Tests related to active surveillance testing are excluded from this calculation. In addition, MDRO/CDI LabID Event data does not distinguish between patient colonization and infection, but rather provides proxy measures of MRSA exposure burden. NHSN also characterizes MRSA LabID events according to onset. NHSN defines community-onset as a “LabID Event specimen collected as an inpatient <3 days after admission to the facility (i.e., days 1 (admission), 2, or 3).” Healthcare facility-onset is defined as “LabID Event specimen collected >3 days after admission to the facility (i.e., on or after day 4).”

In 2013, facilities in the District were required to report MRSA bloodstream infections for the three month period from October to December. A total of 70 MRSA bloodstream infections were reported to NHSN during this time period. Fifty-two (74%) of these cases were defined as community-onset, while only 18 (26%) were hospital-onset. The mean age at specimen collection for hospital-onset MRSA infection was 67 years, and all but one of the 18 hospital-acquired cases were 49 years of age or greater. The majority of hospital-onset cases were male (n=11, 61%), as compared to female (n=7, 39%). Table 6 shows the hospital-acquired MRSA incidence rate by facility.

Table 6: Hospital-Onset MRSA Incidence Rate by Facility, District of Columbia, 2013

Hospital	# of Incident MRSA Events ¹	# of Patient Days	Hospital-Onset Incidence Rate ²
Georgetown	1	28122	0.036
Sibley	0	53939	0.00
Children’s	0	23296	0.00
GWUH	1	23235	0.043
Howard	1	11304	0.088
UMC	1	8709	0.115
SH-Hadley	0	3650	0
Providence	3	11183	0.268
WHC	9	54812	0.164
SH-Capitol Hill	0	3815	0.00
Total	16	222065	0.072

¹Only events with denominator data (patient days and/or admissions) are included in this calculation.

²MRSA HO Incidence Rate: MRSA Hospital Onset (HO) incidence rate. This is the number of incident HO MRSA blood-source LabID Events per 1,000 patient days.

MRSA LabID Event Rate trends for the District are displayed in Table 7. The District-wide MRSA prevalence rate in 2013 was 0.196 events per 100 patients admitted. The prevalence rate has remained relatively stable since 2010. The MRSA healthcare-onset incidence rate has shown a decreasing trend since 2010. The rate significantly decreased from 0.162 events per 1,000 patient days in 2011, to 0.092 per 1,000 patient days in 2012 ($p < 0.05$).

Table 7: MRSA Blood-Source LabID event rates, District of Columbia, 2010-2013

Reporting Period	Total # of MRSA Events ¹	# of Incident MRSA Events	# of Patient Admits	# of Patient Days	MRSA Prevalence Rate ²	HO MRSA Incidence Rate ³
Oct-Dec 2013	68	16	34,673	222,065	0.196	0.072
March-May 2012	77	20	39,927	216,275	0.193	0.092 ↓
May-July 2011	83	36	38,049	221,852	0.218	0.162
Sept-Nov 2010	68	23	32,080	189,483	0.212	0.121

¹Only events with denominator data (patient days and/or admissions) are included in this calculation.

²MRSA Prevalence Rate: Methicillin-Resistant *Staphylococcus aureus* (MRSA) prevalence rate. This is the total number of MRSA blood-source LabID Events per 100 patients admitted.

³HO MRSA Incidence Rate: Hospital-Onset (HO) MRSA incidence rate. This is the number of incident HO MRSA blood-source LabID Events per 1,000 patient days.

↓ or ↑ Indicates statistically significantly less than or greater than the previous reporting period (respectively).

CONCLUSIONS

This report provides a picture of selected HAI data that can be used by the District of Columbia Department of Health (DCDOH) and healthcare facilities to identify areas for improvement and prevention.

Key findings described in this report include the following:

- All District hospitals currently enrolled in the National Healthcare Safety Network (NHSN) complied with the HAI mandatory reporting of central line-associated bloodstream infections (CLABSI) for the time period noted in this report (January 2013 to December 2013). This included 10 District facilities.
- A total of 149 HAIs were reported to NHSN from January 2013 to December 2013, representing 81 CLABSI infections and 68 MRSA bloodstream infections. The number of CLABSIs in 2013 decreased by 26% compared to the previous calendar year. MRSA was reported from October to December 2013. Sixteen of these cases were hospital acquired, and the remaining 52 were community-acquired infections. The number of hospital acquired MRSA cases in 2013 decreased by 20% compared to the 2012 reporting period.
- In 2013, the CLABSI rates for the majority of adult, pediatric, and neonatal ICUs in the District were similar to the 2012 national baseline data. One LTAC ICU and one LTAC ward had rates lower than the national baseline, while one medical/surgical ICU and one surgical ICU had rates higher than the national baseline. In addition, one weight class of one hospital's NICU was lower than the national baseline, while one weight class at two other hospitals was higher than the 2012 national baseline data.
- In 2013, three hospitals reported fewer infections than expected compared to the 2006-2008 national baseline, while the remaining five hospitals reported SIRs similar to the national baseline.
- Since 2010, the overall number of CLABSIs in the in the District for adult, pediatric and neonatal ICUs reporting to NHSN have consistently been lower than expected as compared to the 2006-2008 national baseline. In addition, the SIR for the District significantly decreased from 0.741 in 2012 to 0.546 in 2013.
- The majority of CLABSIs in 2013 occurred in males, and the 45 to 65 year age group was diagnosed with the most CLABSIs.
- The most common pathogen associated with CLABSI cases from the District hospitals reporting infections to NHSN was *Enterococcus faecalis* (10.14%), followed by *Candida albicans* (9.46%), *Staphylococcus aureus* (9.46%), and *Pseudomonas aeruginosa* (7.43%).
- In 2013, the hospital onset MRSA incidence rate was 0.072 per 1,000 patient days, which represents a slight decrease from the rate of 0.092 per 1,000 patient days in 2012. Two hospitals accounted for 75% of the hospital onset MRSA cases.

In follow up to this report, the DCDOH will engage with hospitals that have ICUs with CLABSI rates statistically higher than the DC or national average to explore opportunities to improve HAI prevention and control. The DCDOH will collaborate with partners and stakeholders to use these data to improve infection prevention and reduce HAIs in the District. In addition, the DCDOH will continue to monitor and engage in efforts to verify the accuracy and completeness of CLABSI and MRSA data reported to NHSN. Finally, the DCDOH is also working to monitor additional HAIs, including *Clostridium difficile* (C. diff) and Carbapenem-resistant enterobacteriaceae (CRE).

ABBREVIATIONS USED IN THE HAI REPORT

AHRQ – Agency for Healthcare Research and Quality
ARRA - American Recovery and Reinvestment Act
CAUTI – Catheter-Associated Urinary Tract Infection
CDC – Centers for Disease Control and Prevention
C. diff – Clostridium difficile
CLABSI - Central Line-Associated Bloodstream Infections
CMS – Centers for Medicare and Medicaid Services
CNMC – Children’s National Medical Center
DCDOH – District of Columbia Department of Health
DCHA – District of Columbia Hospital Association
DEDSI – Division of Epidemiology - Disease Surveillance and Investigation
DHHS – Department of Health and Human Services
DOH – Department of Health
GAO – Government Accounting Office
GUH – Georgetown University Hospital
GWUH – George Washington University Hospital
HAI – Healthcare-Associated Infections
HRLA – Health Regulations and Licensing Administration
HUH – Howard University Hospital
ICU – Intensive Care Unit
LabID – Laboratory-Identified
MRSA – Methicillin-Resistant Staphylococcus aureus
NHSN - National Healthcare Safety Network
NQF - National Quality Forum
PROV – Providence Hospital
SHW-Capitol Hill – Specialty Hospital of Washington DC – Capitol Hill
SHW-Hadley – Specialty Hospital of Washington DC – Hadley
SIR – Standard Incidence Ratio
SIB – Sibley Memorial Hospital
SSI – Surgical Site Infection
UMC – United Medical Center
VAP – Ventilator-Associated Pneumonia
WHC – Washington Hospital Center

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