

### THIS REPORT IS BASED ON 2013 DATA, PUBLISHED JANUARY 2015.

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Alabama	Hawaii	Michigan	North Carolina	Texas	
Alaska	Idaho	Minnesota	North Dakota	Utah	
Arizona	Illinois	Mississippi	Ohio	Vermont	
Arkansas	Indiana	Missouri	Oklahoma	Virginia	
California	Iowa	Montana	Oregon	Washington	
Colorado	Kansas	Nebraska	Pennsylvania	West Virginia	
Connecticut	Kentucky	Nevada	Puerto Rico	Wisconsin	
Delaware	Louisiana	New Hampshire	Rhode Island	Wyoming	
District of Columbia	Maine	New Jersey	South Carolina		
Florida	Maryland	New Mexico	South Dakota		
	Massachusetts	New York	Tennessee		

### **EXECUTIVE SUMMARY**

ealthcare-associated infections (HAIs) are a major, yet often preventable, threat to patient safety. The Centers for Disease Control and Prevention (CDC) is committed to helping all Americans receive the best and safest care. The National and State Healthcare-Associated Infections Progress Report (HAI Progress Report) expands and provides an update on the previous reports detailing progress toward the ultimate goal of eliminating healthcare-associated infections. The Report can serve as a reference for anyone looking for information about national and state HAI prevention progress. It is specifically designed to be accessible to many audiences. For detailed methods and references, please refer to the Technical Appendix within this report. For complete data tables and a glossary of terms, please visit CDC's HAI Progress Report website at www.cdc.gov/hai/progress-report.

To help improve patient safety, CDC tracks infections, responds to outbreaks, provides infection prevention expertise and guidelines, spearheads prevention research, and serves as the nation's gold-standard laboratory. CDC's National Healthcare Safety Network (NHSN), the nation's healthcare-associated infection tracking system, is critical in this work. More than 13,000 hospitals and other healthcare facilities provide data to NHSN. This vital information is then used for reporting, including in this HAI

Progress Report, and for care improvement by facilities, states, regions, quality groups, and national public health agencies including CDC.

This HAI Progress Report includes national and state-by-state summaries of six HAI types based on 2013 data. The Report helps measure progress toward the HAI prevention goals outlined in the *National Action Plan to Prevent Health Care-Associated Infections: Road Map to Elimination* (HAI Action Plan) set by the U.S. Department of Health and Human Services (HHS). Progress is measured using the standardized infection ratio (SIR), a summary statistic that can be used to track HAI prevention progress over time. The individual state progress reports include infection-specific SIRs, progress in reducing HAIs, and state prevention efforts. These customized reports can aid in identifying areas in need of improvement from a national level and within specific states.

Data in this report are from acute care hospitals only. National and state-level data include: central line-associated bloodstream infections (CLABSI), catheter-associated urinary tract infections (CAUTI), surgical site infections (SSI), hospital-onset *Clostridium difficile* infections (*C. difficile*), and hospital-onset methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia (bloodstream infections). This is the first report that includes state-specific

information about MRSA bacteremia and *C. difficile* infections. State-specific SSI data are presented for colon surgery and abdominal hysterectomy surgery, two of the most commonly reported surgeries.

The Report describes significant reductions reported at the national level in 2013 for nearly all infections. Despite this progress, the nation did not reach the 2013 goals established by the HAI Action Plan in 2009. More action is needed at every level of public health and health care to improve patient safety and eliminate infections that commonly threaten hospital patients. CLABSI and SSI show the greatest reduction as they closely approached the set goals. Some progress is shown in reducing both hospital-onset MRSA bacteremia and hospital-onset *C. difficile* infections. The Report shows an increase in CAUTI, similar to last year's report, signaling a strong need for additional prevention efforts.

### On the national level, the report found:

46 percent decrease in CLABSI between 2008 and 2013

19 percent decrease in SSI related to the 10 select procedures tracked in the report between 2008 and 2013

6 percent increase in CAUTI between 2009 and 2013

8 percent decrease in MRSA bacteremia between 2011 and 2013

10 percent decrease in *C. difficile* infections between 2011 and 2013

### On the state level:

26 states performed better than the national SIR on at least two infection types

16 states performed better than the national SIR on at least three infection types

6 states performed better than the national SIR on at least four infection types

19 states performed worse than the national SIR on at least two infection types

8 states performed worse than the national SIR on at least three infection types

# The number of states performing better than the nation by infection type:

CLABSI – 16 states

SSI, colon surgery – 9 states

SSI, abdominal hysterectomy – 8 states

CAUTI – 19 states

MRSA bacteremia – 19 states

C. difficile infections – 21 states

# The number of states performing worse than the nation by infection type:

CLABSI – 14 states

SSI, colon surgery – 13 states

SSI, abdominal hysterectomy – 3 states

CAUTI – 17 states

MRSA bacteremia – 12 states

C. difficile infections – 18 states

This report shows that although significant progress was made in some infection types, there is much more work to be done. On any given day, approximately one in 25 U.S. patients has at least one infection contracted during the course of their hospital care, demonstrating the need for improved infection control in U.S. healthcare facilities. Steps can be taken to control and prevent healthcare-associated infections in a variety of settings. Research shows that when healthcare facilities, care teams, and individual doctors and nurses are aware of infection problems and take specific steps to prevent them, rates of some targeted HAIs (e.g., CLABSI) can decrease by more than 70 percent. Full engagement between local, state and federal public health agencies and their partners in the healthcare sector will be vital to sustaining and extending HAI surveillance and prevention progress. CDC will continue its prevention, tracking, lab, and guideline work to push the country further toward the goal of eliminating HAIs.

Any comments and suggestions that would improve the usefulness of future publications are appreciated and should be sent to the Division of Healthcare Quality Promotion, National Center for Emerging and Zoonotic Infectious Diseases, Centers for Disease Control and Prevention, 1600 Clifton Road, Mailstop A-07; Atlanta, Georgia, 30333. E-mail can also be used: patientsafety@cdc.gov.

# STATE PROGRESS LANDSCAPE



**LEGEND** 

2013 state SIR is significantly lower (better) than comparison group in column header

2013 state SIR is significantly higher (worse)

than comparison group in column header





Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR cannot be calculated



-									
		CLAB	SSIS: CENT	TRAL LINE-ASSO	CIATED BLOOD	STREAM INFEC <sup>T</sup>	TIONS		
STATE		2013 Re	eporting and V	alidation		201	2013 State CLABSI SIR		
	# Hospitals Reporting to NHSN	State Reporting Mandate	State HD <sup>+</sup> has Access to Data	Data Checked for Quality <sup>‡</sup>	Additional In-Depth Data Review <sup>‡</sup>	vs. 2012 State SIR	vs. 2013 Nat'l SIR	vs. 2008 Nat'l Baseline	
Alabama	75	<b>✓</b>	<b>V</b>	<b>V</b>		↔	1	4	
Alaska	10					₽	4	- ♣	
Arizona	56					<del></del>	1	4	
Arkansas	48	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	$\triangle$	· ·	4	
California	350	<b>✓</b>	<b>✓</b>	<b>V</b>		₽.	4	- ♣	
Colorado	52	<b>V</b>	<b>V</b>	<b>V</b>	<b>/</b>	<del></del>	$\triangle$	4	
Connecticut	30	<b>V</b>	<b>V</b>	<b>V</b>		4	· ·	- ♣	
D.C.	8	<b>V</b>	<b>V</b>	<b>V</b>		<b>₽</b>	1	4	
Delaware	8	<b>V</b>	<b>V</b>	<b>V</b>		1	1	4	
Florida	191					<del></del>	1	- ♣	
Georgia	102	<b>V</b>	<b>/</b>			<del></del>	1	- ♣	
Hawaii	15	<b>V</b>	<b>V</b>	<b>V</b>		<del></del>	4	4	
Idaho	16					$\bigcirc$	4	- ♣	
Illinois	148	<b>✓</b>	<b>V</b>	<b>V</b>		4	4	4	
Indiana	104	<b>V</b>	<b>/</b>			<del></del>	1	- ♣	
Iowa	50		<b>V</b>	<b>V</b>		<del></del>	$\triangle$	4	
Kansas	49		<b>V</b>	<b>V</b>		<del></del>	<b>企</b>	4	
Kentucky	72		<b>✓</b>			₽	1	₽	
Louisiana	79		<b>✓</b>	<b>V</b>		$\triangle$	1	₽	
Maine	21	<b>V</b>	<b>V</b>	<b>V</b>		₽	<b>企</b>	₽	
Maryland	47	<b>V</b>	<b>/</b>	<b>/</b>		$\bigcirc$	$\hat{\Phi}$	₽	
Massachusetts	69	<b>V</b>	<b>✓</b>	<b>V</b>		₽.	$\triangle$	₽	
Michigan	97		<b>✓</b>	<b>V</b>		<del></del>	4	4	
Minnesota	47	<b>V</b>				$\Phi$	4	4	
Mississippi	47		<b>/</b>			♣	1	₽	
Missouri	74		<b>/</b>			<b>₽</b>	4	₽	

**HD**<sup>+</sup>: State Health Department

Data Checked for Quality<sup>‡</sup>: State analyzed 2013 data for quality and completeness.

Additional In-Depth Data Review<sup>‡</sup>: State reviewed medical records to determine 2013 data accuracy.



**LEGEND** 

2013 state SIR is significantly lower (better) than comparison group in column header

than comparison group in column header

2013 state SIR is significantly higher (worse)





or Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR cannot be calculated



		CLABSIS: CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS										
STATE		2013 Re	eporting and Va	alidation		201	3 State CLABS	SI SIR				
	# Hospitals Reporting to NHSN	State Reporting Mandate	State HD <sup>+</sup> has Access to Data	Data Checked for Quality <sup>‡</sup>	Additional In-Depth Data Review <sup>‡</sup>	vs. 2012 State SIR	vs. 2013 Nat'l SIR	vs. 2008 Nat'l Baseline				
Montana	14				<b>/</b>	<del></del>	<b>企</b>	- ♣				
Nebraska	20					¢	1	₽				
Nevada	23	<b>✓</b>	<b>/</b>			↔	1	- ♣				
New Hampshire	24	<b>V</b>	<b>/</b>	<b>/</b>		Ŷ	$\triangle$	₽				
New Jersey	72	<b>V</b>	<b>✓</b>	<b>V</b>		<b>\$</b>	1	- ♣				
New Mexico	36	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>₽</b>	♦	- ♣				
New York	172	<b>V</b>	<b>V</b>	<b>V</b>	<b>/</b>	₽	· ·	- ♣				
North Carolina	98	<b>V</b>	<b>V</b>	<b>V</b>		<del></del>	$\triangle$	₽				
North Dakota	6					<del></del>	♦	- ♣				
Ohio	137					<b>₽</b>	- ♣	- ♣				
Oklahoma	53	<b>V</b>	<b>/</b>	<b>/</b>		<b>₽</b>	- ♣	- ♣				
Oregon	49	<b>V</b>	<b>/</b>	<b>/</b>		<b>₽</b>	- ♣	- ♣				
Pennsylvania	172	<b>V</b>	<b>/</b>	<b>/</b>		·	₽	4				
Puerto Rico	18		<b>/</b>			₽	1	4				
Rhode Island	11	<b>V</b>	<b>/</b>			·	· ·	- ♣				
South Carolina	65	<b>V</b>	<b>/</b>	<b>/</b>	<b>/</b>	Ŷ	· ·	₽				
South Dakota	16		<b>/</b>	<b>/</b>	<b>✓</b>	Ŷ	4	4				
Tennessee	95	<b>/</b>	<b>/</b>	<b>/</b>		₽	₽	4				
Texas	281	<b>/</b>	<b>/</b>	<b>/</b>		<b>₽</b>	<b>₽</b>	<b>1</b>				
Utah	26	<b>V</b>	<b>/</b>	<b>/</b>		·	· ·	<b>♣</b>				
Vermont	7	<b>/</b>	<b>V</b>	<b>/</b>		·	₽	<b>♣</b>				
Virginia	81	<b>/</b>	<b>/</b>	<b>/</b>		<b>₽</b>	<b>₽</b>	<b>♣</b>				
Washington	83	<b>/</b>	<b>/</b>	<b>/</b>	<b>/</b>	<b>₽</b>	<b>₽</b>	1				
West Virginia	43	<b>/</b>	<b>V</b>	<b>/</b>		<b>₽</b>	₽	₽				
Wisconsin	90		<b>V</b>	<b>/</b>		分	<b>₽</b>	4				
Wyoming	21					<del></del>	♦	\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\				



**LEGEND** 

2013 state SIR is significantly lower (better) than comparison group in column header

2013 state SIR is significantly higher (worse)

than comparison group in column header





Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR cannot be calculated



_									
		CAI	UTIS: CATH	HETER-ASSOCIA	TED URINARY TI	RACT INFECTION	NS		
STATE		2013 R	eporting and V	alidation		2013 State CAUTI SIR			
	# Hospitals Reporting to NHSN	State Reporting Mandate	State HD <sup>+</sup> has Access to Data	Data Checked for Quality <sup>‡</sup>	Additional In-Depth Data Review <sup>‡</sup>	vs. 2012 State SIR	vs. 2013 Nat'l SIR	vs. 2009 Nat'l Baseline	
Alabama	86	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	1	-\$	-	
Alaska	10					<b>₽</b>	$\triangle$	· ·	
Arizona	55					$\triangle$	$\bigcirc$	· ·	
Arkansas	49	<b>V</b>	<b>V</b>	<b>V</b>		$\triangle$	$\triangle$	·	
California	341					1		- ♣	
Colorado	52					$\triangle$	4	₽	
Connecticut	31	<b>V</b>	<b>✓</b>	<b>V</b>		$\triangle$	1	1	
D.C.	7		<b>V</b>	<b>V</b>		<b>₽</b>	1	1	
Delaware	8	<b>V</b>	<b>V</b>	<b>V</b>		<del></del>	1	1	
Florida	190					1	₽	₽	
Georgia	105	<b>V</b>	<b>V</b>			1	1	1	
Hawaii	15	<b>V</b>	<b>V</b>	<b>V</b>		4	4	₽	
Idaho	17				<b>✓</b>	<b>₽</b>	⇩	↔	
Illinois	148					$\triangle$	₽	₽	
Indiana	110	<b>V</b>	<b>V</b>			1	1	1	
lowa	68		<b>V</b>	<b>V</b>		<b>₽</b>	₽	₽	
Kansas	53		<b>V</b>	<b>V</b>		↔	↔	1	
Kentucky	73		<b>V</b>			<del></del>	1	1	
Louisiana	81		<b>V</b>	<b>V</b>		$\triangle$	₽	₽	
Maine	21		<b>V</b>	<b>V</b>		$\triangle$	1	1	
Maryland	39					4	1	1	
Massachusetts	69					<del></del>	1	1	
Michigan	98		<b>✓</b>	<b>✓</b>		1	1	1	
Minnesota	51	<b>V</b>				4	1	1	
Mississippi	48		<b>V</b>			₽.	↔	↔	
Missouri	76					↔	· ·	·	



**LEGEND** 

2013 state SIR is significantly lower (better) than comparison group in column header

2013 state SIR is significantly higher (worse)

than comparison group in column header





Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR cannot be calculated



		CAI	UTIS: CATH	HETER-ASSOCIA	TED URINARY T	RACT INFECTIO	NS		
STATE		2013 Re	eporting and V	alidation		2013 State CAUTI SIR			
	# Hospitals Reporting to NHSN	State Reporting Mandate	State HD <sup>+</sup> has Access to Data	Data Checked for Quality <sup>‡</sup>	Additional In-Depth Data Review <sup>‡</sup>	vs. 2012 State SIR	vs. 2013 Nat'l SIR	vs. 2009 Nat'l Baseline	
Montana	14				<b>/</b>	$\Diamond$	4	- ♣	
Nebraska	20					<b>₽</b>	$\hat{\Phi}$	<b>₽</b>	
Nevada	24					<del></del>	· ·	分	
New Hampshire	23	<b>V</b>	<b>✓</b>	<b>V</b>		₽.	♣	₽	
New Jersey	72	<b>V</b>	<b>✓</b>	<b>V</b>		4	卆	↔	
New Mexico	35					<b>₽</b>	4	₽.	
New York	172		<b>✓</b>			4	1	1	
North Carolina	98	<b>V</b>	<b>V</b>	<b>V</b>		<del></del>	1	1	
North Dakota	6					<del></del>	4	4	
Ohio	136					· ·	4	4	
Oklahoma	58					1	4	4	
Oregon	50		<b>V</b>			4	· ·	1	
Pennsylvania	184	<b>/</b>	<b>V</b>	<b>V</b>		1	4	↔	
Puerto Rico	18		<b>V</b>			4	4	4	
Rhode Island	10					<b>₽</b>	1	1	
South Carolina	64					₽	1	1	
South Dakota	18		<b>V</b>			· ·	4	1	
Tennessee	94	<b>V</b>	<b>✓</b>	<b>V</b>		4	1	1	
Texas	289		<b>✓</b>	<b>V</b>		1	$\triangle$	<b>企</b>	
Utah	26	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>₽</b>	1	1	
Vermont	5					$\bigcirc$	$\triangle$	$\Box$	
Virginia	81					1	$\triangle$	<b>企</b>	
Washington	69					⇩	$\triangle$	↔	
West Virginia	47	<b>V</b>	<b>V</b>	<b>V</b>		<b>₽</b>	4	₽	
Wisconsin	102		<b>V</b>	<b>V</b>		↔	4	- ♣	
Wyoming	24					<b>₽</b>	4	₽	
	-								



**LEGEND** 

2013 state SIR is significantly lower (better) than comparison group in column header

2013 state SIR is significantly higher (worse)

than comparison group in column header





Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR cannot be calculated



			- Column House					
		SSI	S: surgical	L SITE INFECTIO	NS, ABDOMINA	L HYSTERECTO	MY	
STATE		2013 Re	eporting and V	alidation		2013 State SSI: HYST SIR		
	# Hospitals Reporting to NHSN	State Reporting Mandate	State HD <sup>+</sup> has Access to Data	Data Checked for Quality <sup>‡</sup>	Additional In-Depth Data Review <sup>‡</sup>	vs. 2012 State SIR	vs. 2013 Nat'l SIR	vs. 2008 Nat'l Baseline
Alabama	60	<b>V</b>	<b>V</b>	<b>V</b>		↔	₽	₽
Alaska	8					<del></del>	<b>₽</b>	$\triangle$
Arizona	52					<b>₽</b>	1	· ·
Arkansas	39	<b>V</b>	<b>V</b>	<b>V</b>		<del></del>	<b>企</b>	$\bigcirc$
California	303	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	$\triangle$	₽	₽
Colorado	56	<b>V</b>	<b>V</b>	<b>/</b>		<del></del>	<del></del>	₽.
Connecticut	29	<b>V</b>	<b>V</b>	<b>✓</b>		<del></del>	· ·	·
D.C.	7		<b>✓</b>			$\triangle$	· ·	·
Delaware	7	<b>V</b>	<b>V</b>	<b>V</b>		<del></del>	<b>企</b>	· ·
Florida	172					<b>₽</b>	<b>企</b>	<b>₽</b>
Georgia	90	<b>V</b>	<b>✓</b>			<del></del>	<b>企</b>	♦
Hawaii	13	<b>V</b>	<b>V</b>	<b>V</b>		4	♣	₽
Idaho	17				<b>/</b>	1	· ·	⇧
Illinois	135					₽	₽	-
Indiana	98	<b>V</b>	<b>V</b>			1	$\Diamond$	$\bigcirc$
Iowa	33					$\triangle$	· ·	₽
Kansas	41		<b>/</b>	<b>✓</b>		♦	<b>₽</b>	-
Kentucky	60		<b>/</b>			台	·	<b>₽</b>
Louisiana	79		<b>V</b>	<b>/</b>		Ç	⇧	$\triangle$
Maine	19		<b>V</b>	<b>V</b>		↔	· 企	♣
Maryland	12					Ţ.	· 企	· ·
Massachusetts	57	<b>✓</b>	<b>✓</b>	<b>✓</b>		<del></del>	· · ·	·
Michigan	88		<b>✓</b>	<b>✓</b>		<del></del>	1	·
Minnesota	50	<b>V</b>				<b>₽</b>	宁	· ·
Mississippi	42		<b>V</b>			<b>₽</b>	<b>₽</b>	仝
Missouri	67		<b>V</b>			<b>₽</b>	<b>♦</b>	-

**HD**<sup>+</sup>: State Health Department

Data Checked for Quality<sup>‡</sup>: State analyzed 2013 data for quality and completeness.

Additional In-Depth Data Review<sup>‡</sup>: State reviewed medical records to determine 2013 data accuracy.



**LEGEND** 

2013 state SIR is significantly lower (better) than comparison group in column header

2013 state SIR is significantly higher (worse)

than comparison group in column header





or Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR cannot be calculated



		SSI	<b>S:</b> surgical	SITE INFECTIO	NS, ABDOMINA	L HYSTERECTOR	MY	
STATE		2013 Re	eporting and Va	alidation	_	2013	State SSI: HY	ST SIR
	# Hospitals Reporting to NHSN	State Reporting Mandate	State HD <sup>+</sup> has Access to Data	Data Checked for Quality <sup>‡</sup>	Additional In-Depth Data Review <sup>‡</sup>	vs. 2012 State SIR	vs. 2013 Nat'l SIR	vs. 2008 Nat'l Baseline
Montana	14					<del></del>	<del></del>	· 企
Nebraska	19					<b>₽</b>	<b>₽</b>	<b>₽</b>
Nevada	20					<del></del>	$\triangle$	- - - -
New Hampshire	22	<b>V</b>	<b>V</b>	<b>V</b>		<del></del>	<b>₽</b>	$\triangle$
New Jersey	66	<b>V</b>	<b>V</b>	<b>V</b>		$\triangle$	$\triangle$	$\bigcirc$
New Mexico	26					<del></del>	₽.	$\Box$
New York	158	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	$\hat{\Phi}$	1	1
North Carolina	89	<b>V</b>	<b>V</b>	<b>✓</b>		<del></del>	<del></del>	· ·
North Dakota	6					<del></del>	<del></del>	· ①
Ohio	128					$\hat{\Phi}$	₽	-
Oklahoma	62					$\triangle$	<b>₽</b>	₽
Oregon	46	<b>V</b>	<b>V</b>	<b>V</b>		1	<del></del>	<b>企</b>
Pennsylvania	146	<b>V</b>	<b>V</b>	<b>V</b>		<b>₽</b>	<del></del>	- Ĉ
Puerto Rico	0		<b>V</b>					
Rhode Island	11					₽	$\triangle$	$\bigcirc$
South Carolina	51	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	$\hat{\Phi}$	<b>₽</b>	₽
South Dakota	14		<b>V</b>			<del></del>	<del></del>	· ·
Tennessee	87	<b>✓</b>	<b>V</b>	<b>✓</b>		<del></del>	<del></del>	$\bigcirc$
Texas	290	<b>V</b>	<b>V</b>	<b>V</b>		<b>₽</b>	♣	♣
Utah	29	<b>✓</b>	<b>V</b>	<b>/</b>		<del></del>	<del></del>	<b>企</b>
Vermont	12	<b>V</b>	<b>V</b>	<b>V</b>		$\triangle$	$\triangle$	⇩
Virginia	66					<b>₽</b>	<b>₽</b>	<b>₽</b>
Washington	64	<b>V</b>	<b>V</b>	<b>V</b>		<del></del>	$\triangle$	<b>₽</b>
West Virginia	34	<b>V</b>	<b>V</b>	<b>✓</b>		<del></del>	$\triangle$	$\bigcirc$
Wisconsin	75		<b>✓</b>	<b>V</b>		$\hat{\nabla}$	$\triangle$	$\Diamond$
Wyoming	13					↔	↔	-



**LEGEND** 

20 th

2013 state SIR is significantly lower (better) than comparison group in column header

2013 state SIR is significantly higher (worse)

than comparison group in column header





Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR cannot be calculated



			SSIs: suf	RGICAL SITE INF	ECTIONS, COLO	N SURGERY		
STATE			eporting and Va				State SSI: COL	ON SIR
	# Hospitals Reporting to NHSN	State Reporting Mandate	State HD <sup>+</sup> has Access to Data	Data Checked for Quality <sup>‡</sup>	Additional In-Depth Data Review <sup>‡</sup>	vs. 2012 State SIR*	vs. 2013 Nat'l SIR	vs. 2008 Nat'l Baseline
Alabama	72	<b>V</b>	<b>V</b>	<b>V</b>		Ŷ	₽	₽
Alaska	9					<b>₽</b>	$\bigcirc$	<b>₽</b>
Arizona	51					↔	1	· ·
Arkansas	39	<b>V</b>	<b>V</b>	<b>V</b>		$\triangle$	$\bigcirc$	- ♣
California	318	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	1	₽	- ♣
Colorado	57	<b>V</b>	<b>V</b>	<b>V</b>		$\triangle$	₽	- ♣
Connecticut	30	<b>V</b>	<b>V</b>	<b>V</b>		<del></del>	1	· ·
D.C.	7		<b>V</b>			<del></del>	$\triangle$	$\triangle$
Delaware	7	<b>V</b>	<b>V</b>	<b>V</b>		<del></del>	$\Diamond$	$\triangle$
Florida	183					<del></del>	₽	4
Georgia	96	<b>V</b>	<b>V</b>			<del></del>	$\Diamond$	- ♣
Hawaii	13	<b>V</b>	<b>V</b>	<b>V</b>		<del></del>	<del></del>	· ·
ldaho	18				<b>/</b>	<del></del>	$\bigcirc$	$\bigcirc$
Illinois	138					1	₽	- ♣
Indiana	101	<b>V</b>	<b>V</b>			<del></del>	1	· ·
Iowa	36					<del></del>	<del></del>	· ·
Kansas	43		<b>V</b>	<b>V</b>		1	1	1
Kentucky	66		<b>V</b>			$\triangle$	₽	4
Louisiana	78		<b>V</b>	<b>V</b>		<del></del>	1	· ·
Maine	21		<b>V</b>	<b>V</b>		$\triangle$	<del></del>	· ·
Maryland	22					$\triangle$	♦	$\triangle$
Massachusetts	62					1	1	1
Michigan	92		<b>V</b>	<b>V</b>		1	1	· ·
Minnesota	51	<b>V</b>				1	<del></del>	₽.
Mississippi	43		<b>✓</b>			$\hat{\Box}$	$\bigcirc$	$\triangle$
Missouri	74					<del></del>	- ♣	1

2013 state SIR is significantly higher (worse)

than comparison group in column header



**LEGEND** 

2013 state SIR is significantly lower (better) than comparison group in column header





Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR cannot be calculated



		;	SSIs: sur	RGICAL SITE INF	ECTIONS, COLO	ON SURGERY		
STATE		2013 Reporting and Validation 2013 State SSI: COLON SIR						ON SIR
	# Hospitals Reporting to NHSN	State Reporting Mandate	State HD <sup>+</sup> has Access to Data	Data Checked for Quality <sup>‡</sup>	Additional In-Depth Data Review <sup>‡</sup>	vs. 2012 State SIR*	vs. 2013 Nat'l SIR	vs. 2008 Nat'l Baseline
Montana	14					企	⇩	$\bigcirc$
Nebraska	19					· ·	1	1
Nevada	22					$\triangle$	· ·	·
New Hampshire	25	<b>V</b>	<b>V</b>	<b>V</b>		· ·	<b>₽</b>	₽
New Jersey	72	<b>V</b>	<b>✓</b>	<b>V</b>		1	$\triangle$	₽
New Mexico	27					<del></del>	$\triangle$	₽
New York	171	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	1	1	1
North Carolina	93	<b>V</b>	<b>V</b>	<b>V</b>		<del></del>	$\triangle$	₽
North Dakota	6					$\triangle$	· 企	↔
Ohio	131					1	$\triangle$	₽
Oklahoma	56					1	1	↔
Oregon	50	<b>V</b>	<b>V</b>	<b>V</b>		<b>₽</b>	4	₽
Pennsylvania	160	<b>V</b>	<b>V</b>	<b>V</b>		<del></del>	$\triangle$	₽
Puerto Rico	0		<b>V</b>					
Rhode Island	11					$\triangle$	1	Û Û
South Carolina	57	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	$\triangle$	· ·	₽
South Dakota	14		<b>V</b>			4	· ·	₽
Tennessee	95	<b>V</b>	<b>V</b>	<b>V</b>		分	$\triangle$	₽
Texas	285	<b>V</b>	<b>V</b>	<b>V</b>		<del></del>	₽	₽
Utah	30	<b>V</b>	<b>V</b>	<b>V</b>		$\triangle$	1	·
Vermont	6					<del></del>	1	1
Virginia	75					↔	$\Box$	₽.
Washington	70	<b>V</b>	<b>✓</b>	<b>V</b>		1	· 企	$\Box$
West Virginia	36	<b>V</b>	<b>V</b>	<b>V</b>		<del></del>	· ·	$\Box$
Wisconsin	84		<b>V</b>	<b>✓</b>		· ·	♦	₽
Wyoming	12					₽.	₽.	₽



**LEGEND** 

2013 state SIR is significantly lower (better) than comparison group in column header

2013 state SIR is significantly higher (worse)

than comparison group in column header





or Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR cannot be calculated



	MRSA	Bacterem	ia: LABORATO	RY IDENTIFIED HO	OSPITAL-ONSET BL	OODSTREAM INFE	ECTIONS		
STATE		2013 F	Reporting and Va	lidation		2013 State MRS	2013 State MRSA Bacteremia SIR		
	# Hospitals Reporting to NHSN	State Reporting Mandate	State HD <sup>+</sup> has Access to Data	Data Checked for Quality <sup>‡</sup>	Additional In-Depth Data Review <sup>‡</sup>	vs. 2013 Nat'l SIR	vs. 2011 Nat'l Baseline		
Alabama	93					1	1		
Alaska	11					-	- ♣		
Arizona	63					⇧	$\triangle$		
Arkansas	47	<b>✓</b>	<b>✓</b>	<b>/</b>		1	<b>企</b>		
California	359	<b>V</b>	<b>V</b>	<b>✓</b>		- ♣	₽		
Colorado	56		<b>/</b>			<b>₽</b>	₽		
Connecticut	32	<b>V</b>	<b>✓</b>	<b>/</b>	<b>/</b>	₽	₽		
D.C.	9	<b>V</b>	<b>V</b>	<b>V</b>		1	1		
Delaware	8	<b>V</b>	<b>✓</b>			· ·	· ·		
Florida	190					1	1		
Georgia	111	<b>V</b>	<b>✓</b>			1	<b>企</b>		
Hawaii	13	<b>✓</b>	<b>✓</b>	<b>/</b>		-	4		
Idaho	21				<b>/</b>	-	₽		
Illinois	183	<b>V</b>	<b>V</b>	<b>V</b>		-	4		
Indiana	102					$\Diamond$	₽		
lowa	41		<b>✓</b>	<b>/</b>		₽	₽		
Kansas	59		<b>✓</b>	<b>/</b>		₽	₽		
Kentucky	71		<b>✓</b>			1	1		
Louisiana	101		<b>✓</b>	<b>/</b>		1	1		
Maine	25		<b>✓</b>	<b>/</b>		$\triangle$	$\triangle$		
Maryland	13					$\Diamond$	$\triangle$		
Massachusetts	71					₽	₽		
Michigan	104		<b>✓</b>	<b>/</b>		· ·	♦		
Minnesota	53	<b>✓</b>				♣	₽		
Mississippi	64		<b>✓</b>			1	<b>企</b>		
Missouri	82					<b>₽</b>	₽		



**LEGEND** 

2013 state SIR is significantly lower (better) than comparison group in column header

2013 state SIR is significantly higher (worse)

than comparison group in column header



or Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR cannot be calculated



	MRSA	Bacterem	ia: LABORATO	RY IDENTIFIED HO	OSPITAL-ONSET BL	.00DSTREAM INF	ECTIONS
STATE		2013 R	Reporting and Va	lidation		2013 State MRS	A Bacteremia SIR
	# Hospitals Reporting to NHSN	State Reporting Mandate	State HD <sup>+</sup> has Access to Data	Data Checked for Quality <sup>‡</sup>	Additional In-Depth Data Review <sup>‡</sup>	vs. 2013 Nat'l SIR	vs. 2011 Nat'l Baseline
Montana	15					$\Diamond$	- ♣
Nebraska	24					- ♣	- ♣
Nevada	23	<b>✓</b>	<b>✓</b>			$\triangle$	₽
New Hampshire	21					- ♣	- ♣
New Jersey	72	<b>V</b>	<b>V</b>			1	1
New Mexico	37			<b>/</b>		- ♣	- ♣
New York	179		<b>✓</b>			1	· ·
North Carolina	100	<b>V</b>	<b>V</b>	<b>/</b>		<del></del>	4
North Dakota	11		<b>/</b>			· ·	· ·
Ohio	144	<b>/</b>	<b>/</b>			$\bigcirc$	- ♣
Oklahoma	91					· ·	· ·
Oregon	49		<b>V</b>			₽	4
Pennsylvania	168	<b>V</b>	<b>/</b>	<b>/</b>		1	· ·
Puerto Rico	3		<b>V</b>				
Rhode Island	11					$\triangle$	<b>₽</b>
South Carolina	66	<b>V</b>	<b>✓</b>	<b>/</b>	<b>/</b>	· ·	$\triangle$
South Dakota	23		<b>✓</b>			$\triangle$	$\triangle$
Tennessee	115	<b>V</b>	<b>/</b>	<b>/</b>		1	1
Texas	359					$\bigcirc$	4
Utah	37	<b>V</b>	<b>✓</b>	<b>/</b>		₽	4
Vermont	13					₽	4
Virginia	84					$\bigcirc$	$\triangle$
Washington	59					$\triangle$	4
West Virginia	39	<b>✓</b>	<b>✓</b>	<b>/</b>		↔	4
Wisconsin	88		<b>✓</b>	<b>/</b>		₽	4
Wyoming	14					$\bigcirc$	⇩

**HD**<sup>+</sup>: State Health Department

Data Checked for Quality<sup>‡</sup>: State analyzed 2013 data for quality and completeness. Additional In-Depth Data Review<sup>‡</sup>: State reviewed medical records to determine 2013 data accuracy.



**LEGEND** 

2013 state SIR is significantly lower (better) than comparison group in column header

2013 state SIR is significantly higher (worse)

than comparison group in column header





or Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR cannot be calculated



	C. diffi	c <i>ile</i> Infect	ions: Labor	ATORY IDENTIFIE	D HOSPITAL-ONSET	C. DIFFICILE II	NFECTIONS
STATE		2013 R	Reporting and Va	lidation		<b>2013 State</b> C. (	diff Infection SIR
	# Hospitals Reporting to NHSN	State Reporting Mandate	State HD <sup>+</sup> has Access to Data	Data Checked for Quality <sup>‡</sup>	Additional In-Depth Data Review <sup>‡</sup>	vs. 2013 Nat'l SIR	vs. 2011 Nat'l Baseline
Alabama	93					<b>₽</b>	♣
Alaska	11					♣	♣
Arizona	62					<b>1</b>	<b>企</b>
Arkansas	47	<b>✓</b>	<b>✓</b>	<b>/</b>		♣	♣
California	359	<b>V</b>	<b>/</b>	<b>/</b>		1	1
Colorado	55		<b>✓</b>			1	<b>企</b>
Connecticut	32	<b>✓</b>	<b>✓</b>	<b>/</b>		1	<b>企</b>
D.C.	7		<b>✓</b>	<b>/</b>		$\triangle$	4
Delaware	8	<b>✓</b>	<b>✓</b>			1	· ·
Florida	190					$\triangle$	₽
Georgia	111	<b>✓</b>	<b>V</b>			4	4
Hawaii	13	<b>✓</b>	<b>✓</b>	<b>/</b>		₽	4
ldaho	20				<b>✓</b>	₽	₽
Illinois	183	<b>V</b>	<b>✓</b>	<b>/</b>		Û	₽
Indiana	102					⇧	4
Iowa	57		<b>✓</b>	<b>/</b>		₽	4
Kansas	64		<b>✓</b>	<b>/</b>		↔	₽
Kentucky	71		<b>✓</b>		<b>✓</b>	1	<b>₽</b>
Louisiana	101		<b>✓</b>	<b>/</b>		4	4
Maine	36	<b>✓</b>	<b>✓</b>	<b>/</b>	<b>✓</b>	₽	4
Maryland	46	<b>V</b>	<b>✓</b>	<b>✓</b>		1	1
Massachusetts	71					1	<b>企</b>
Michigan	104		<b>✓</b>	<b>/</b>		↔	₽
Minnesota	55	<b>✓</b>				₽	₽
Mississippi	65		<b>V</b>			₽	₽
Missouri	82					- ♣	- ♣

**HD**<sup>+</sup>: State Health Department

Data Checked for Quality<sup>‡</sup>: State analyzed 2013 data for quality and completeness. Additional In-Depth Data Review<sup>‡</sup>: State reviewed medical records to determine 2013 data accuracy.

2013 state SIR is significantly higher (worse)

than comparison group in column header



**LEGEND** 

2013 state SIR is significantly lower (better) than comparison group in column header





or Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR cannot be calculated



	C. difficile Infections: Laboratory Identified Hospital-Onset c. difficile Infections							
STATE		2013 R	Reporting and Va	lidation		2013 State C. diff Infection SIF		
	# Hospitals Reporting to NHSN	State Reporting Mandate	State HD <sup>+</sup> has Access to Data	Data Checked for Quality <sup>‡</sup>	Additional In-Depth Data Review <sup>‡</sup>	vs. 2013 Nat'l SIR	vs. 2011 Nat'l Baseline	
Montana	16					¢>	₽	
Nebraska	24					<b></b>	₽	
Nevada	22					1	1	
New Hampshire	22					<b></b>	₽	
New Jersey	72					1	<b>企</b>	
New Mexico	39	<b>V</b>	<b>V</b>	<b>/</b>		1	· ·	
New York	180	<b>✓</b>	<b>✓</b>	<b>/</b>	<b>/</b>	1	₽	
North Carolina	100	<b>V</b>	<b>V</b>	<b>/</b>		₽	₽	
North Dakota	11		<b>/</b>			$\triangle$	₽	
Ohio	144	<b>/</b>	<b>/</b>			1	4	
Oklahoma	91					$\triangle$	4	
Oregon	59	<b>✓</b>	<b>V</b>	<b>/</b>		<b>\$</b>	4	
Pennsylvania	167	<b>V</b>	<b>✓</b>	<b>/</b>		1	4	
Puerto Rico	4							
Rhode Island	11	<b>✓</b>				<b>1</b>	1	
South Carolina	64					4	4	
South Dakota	23		<b>✓</b>			<b></b>	4	
Tennessee	115	<b>V</b>	<b>✓</b>	<b>/</b>		₽	4	
Texas	359					₽	4	
Utah	35	<b>✓</b>	<b>✓</b>	<b>/</b>		<b>₽</b>	4	
Vermont	13					<b>P</b>	₽	
Virginia	84					1	⇩	
Washington	61					1	4	
West Virginia	41	<b>✓</b>	<b>V</b>	<b>/</b>		<b>1</b>	<b>企</b>	
Wisconsin	95		<b>/</b>	<b>/</b>		Ç	₽	
Wyoming	27					<b>₽</b>	♦	

# **NATIONAL FACTSHEETS**

### HEALTHCARE ASSOCIATED INFECTIONS PROGRESS

# NATIONAL

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



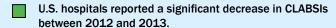
### **CLABSIs**

**46**%

LOWER COMPARED
TO NAT'L BASELINE

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.





### **CAUTIS**

<del>^</del>6%

HIGHER COMPARED
TO NAT'I BASFLINE\*

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

U.S. hospitals reported a significant increase in CAUTIS between 2012 and 2013.

Among the 2,781 U.S. hospitals with enough data to calculate an SIR, 12% had an SIR significantly worse than the national SIR of 1.06.

### MRSA Bacteremia **₹**8%

LOWER COMPARED
TO NAT'I BASFIINF\*

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

U.S. hospitals reported a significant decrease in MRSA Bacteremia between 2012 and 2013.

Among the 2,002 U.S. hospitals with enough data to calculate an SIR, 7% had an SIR significantly worse than the national SIR of 0.92.

# SSIs

#### SURGICAL SITE INFECTIONS

See page 3 for additional procedures

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

### SSI: Abdominal Hysterectomy

**4** 14%

LOWER COMPARED TO NAT'L BASELINE\*

- U.S. hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Among the 765 U.S. hospitals with enough data to calculate an SIR, 6% had an SIR significantly worse than the national SIR of 0.86.

### SSI: Colon Surgery

<del>\$</del>8%

LOWER COMPARED TO NAT'L BASELINE\*

- U.S. hospitals reported a significant increase in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 2,030 U.S. hospitals with enough data to calculate an SIR, 7% had an SIR significantly worse than the national SIR of 0.92.

### C. difficile Infections

<del>+</del> 10%

TO NAT'L BASELINE\*

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.

U.S. hospitals reported a significant decrease in *C.difficile* infections between 2012 and 2013.

Among the 3,557 U.S. hospitals with enough data to calculate an SIR, 13% had an SIR significantly worse than the national SIR of 0.90.



# HEALTHCARE ASSOCIATED INFECTIONS PROGRESS

# NATIONAL

**HEALTHCARE-ASSOCIATED INFECTION (HAI) DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts.

Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- Preventing HAIs: www.cdc.gov/hai

### **LEGEND**



2013 Nat'l SIR is significantly lower (better) than comparison group



Change in 2013 Nat'l SIR compared to group in column header is not statistically significant



2013 Nat'l SIR is significantly higher (worse) than comparison group in

HAI TYPE	# OF U.S. HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013+	2013 NAT'L SIR vs. 2012 Nat'l SIR <sup>‡</sup>	2013 NAT'L SIR vs. Nat'l Baseline <sup>‡</sup>	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	3,578	♣ 4%	46%	0.54
CAUTI Nat'l Baseline: 2009	3,640	<b>☆</b> 3%	6%	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	3,182	₹ 4%	14%	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	3,348	14%	₩ 8%	0.92
MRSA Bacteremia Nat'l Baseline: 2011	3,827	₩ 5%	₩ 8%	0.92
C. difficile Infections Nat'l Baseline: 2011	3,924	6%	♣ 10%	0.90

<sup>\*</sup>The number of hospitals reporting for each HAI type may differ because some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

### WHAT DOES THE STANDARDIZED INFECTION RATIO (SIR) MEAN?

#### IF THE NATIONAL SIR IS:



There was an increase in the number of infections reported in the nation in 2013 compared to the national baseline.



There were about the same number of infections reported in the nation in 2013 compared to the national baseline.



There was a decrease in the number of infections reported in the nation in 2013 compared to the national baseline.



<sup>&</sup>lt;sup>‡</sup>The 2012 Nat'l SIRs can be found in the data tables of this report.

<sup>\*</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.



# NATIONAL SSIs BY PROCEDURE TYPE

Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- Preventing HAIs: www.cdc.gov/hai

**SURGICAL SITE INFECTIONS** 

SSIS: 10 SELECT PROCEDURES

√ 19% LOWER COMPARED TO NAT'L BASELINE\*

U.S. hospitals reported no significant change in SSIs from 10 select procedures between 2012 and 2013. Among the 2,543 U.S. hospitals with enough data to calculate an SIR, 9% had an SIR significantly worse than the national SIR of 0.81.

Almost all U.S. hospitals report SSI data following colon surgeries and abdominal hysterectomies to NHSN.

PROCEDURE CATEGORY	# FACILITIES REPORTING	# PROCEDURES REPORTED	2013 NAT'L SIR VS. NAT'L BASELINE	2013 NAT'L SIR
Hip arthroplasty	1,761	261,809	27%	0.73
Knee arthroplasty	1,750	378,846	40%	0.60
Colon surgery	3,348	296,623	8%	0.92
Rectal surgery	322	6,633	21%	0.79
Abdominal hysterectomy	3,182	302,250	14%	0.86
Vaginal hysterectomy	826	35,488	19%	0.81
Coronary artery bypass graft	742	116,105	40%	0.60
Other cardiac surgery	371	43,409	44%	0.56
Peripheral vascular bypass surgery	288	8,856	43%	0.57
Abdominal aortic aneurysm repair	302	2,462	70%	0.30
These 10 procedures combined	3,581	1,452,481	19%	0.81

**LEGEND** 

2013 national SIR is significantly lower (better) than the 2008 SSI national baseline

2013 national SIR is significantly higher (worse) than 2008 SSI national baseline



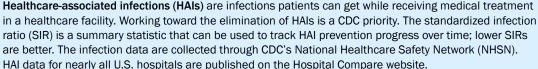
or Change in 2013 national SIR compared to the 2008 SSI national baseline is not statistically significant



# **STATE FACTSHEETS**

# ALABAMA Haltheau and infections (III

HEALTHCARE ASSOCIATED INFECTIONS PROGRESS





### **CLABSIs**

**33**%

LOWER COMPARED
TO NAT'I BASELINE

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Alabama hospitals reported no significant change in CLABSIs between 2012 and 2013.

between 2012 and 2013

Among the 39 hospitals in Alabama with enough data to calculate an SIR, 13% had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

**7**%

LOWER COMPARED TO NAT'L BASELINE\*

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Alabama hospitals reported a significant increase in CAUTIS between 2012 and 2013.

Among the 70 hospitals in Alabama with enough data to calculate an SIR, 6% had an SIR significantly worse than the national SIR of 1.06.

### MRSA Bacteremia 42% HIGHER COMPARED TO NAT'L BASELINE

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Among the 38 hospitals in Alabama with enough data to calculate an SIR, 26% had an SIR significantly worse than the national SIR of 0.92.

### SSIs

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy

**39**%

LOWER COMPARED
TO NAT'I BASELINE\*

- Alabama hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Among the 14 hospitals in Alabama with enough data to calculate an SIR, 7% had an SIR significantly worse than the national SIR of 0.86.

### SSI: Colon Surgery

<del>\$\frac{1}{2}\$</del>53%

LOWER COMPARED
TO NAT'L BASELINE\*

- Alabama hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 35 hospitals in Alabama with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.92.

### C. difficile Infections

**37**%

LOWER COMPARED
TO NAT'I BASELINE\*

### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 83 hospitals in Alabama with enough data to calculate an SIR, 1% had an SIR significantly worse than the national SIR of 0.90.







**LEGEND** 

2013 state SIR is
significantly lower (better)
than comparison group
in column header

Or Or Change in 2013 state
SIR compared to group
in column header is not
statistically significant

2013 state SIR is significantly higher (worse) than comparison group in column header

2013 state SIR cannot be calculated

# **ALABAMA**

### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts.

Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Alabama: www.adph.org/hai/
- Alabama validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



HAI TYPE	# OF ALABAMA HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 118+	2013 STATE SIR vs. 2012 State SIR‡	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR VS. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	75	<b>☆ 2</b> %	25%	33%	0.67	0.54
CAUTI Nat'l Baseline: 2009	86	25%	12%	₹ 7%	0.93	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	60	<b>^</b> 20%	30%	₹ 39%	0.61	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	72	₹ 20%	49%	53%	0.47	0.92
MRSA Bacteremia Nat'l Baseline: 2011	93	2012 SIR not available	<b>1</b> 56%	42%	1.42	0.92
C. difficile Infections Nat'l Baseline: 2011	93	2012 SIR not available	30%	₹ 37%	0.63	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

### WHAT IS ALABAMA DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

Alabama has a state mandate to publicly report at least one HAI to NHSN.

Prevention efforts to reduce specific HAIs:

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Surgical site infections

- Multidrug-resistant infections (MRSA)
- Long-term care facilities
- Hand hygiene
- Antibiotic stewardship

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# **ALASKA**

**HEALTHCARE ASSOCIATED INFECTIONS PROGRESS** 

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

LOWER COMPARED TO NAT'L BASELINE\*

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

- Alaska hospitals reported a significant decrease in CLABSIs between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

HIGHER COMPARED TO NAT'L BASELINE

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

- Alaska hospitals reported no significant change in CAUTIS between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 1.06.

### MRSA Bacteremia →80%

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant Staphylococcus aureus (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.92.

### **SSIs**

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a surgical site infection. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

### SSI: Abdominal Hysterectomy

- Alaska hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.86.

### SSI: Colon Surgery

- Alaska hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.92.

### C. difficile Infections

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from Clostridium difficile (C. difficile), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 11 hospitals in Alaska with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.90.





# **ALASKA**

### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts. Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Alaska: www.epi.hss.state.ak.us/id/hai/default.htm
- Alaska validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header



Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

HAI TYPE	# OF ALASKA HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 26+	2013 STATE SIR vs. 2012 State SIR‡	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR vs. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	10	75%	48%	72%	0.28	0.54
CAUTI Nat'l Baseline: 2009	10	₹ 23%	₹ 4%	<b>☆ 2</b> %	1.02	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	8	<b>☆ 20</b> %	₹ 48%	₹ 55%	0.45	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	9	₹ 47%	₹ 9%	₹ 16%	0.84	0.92
MRSA Bacteremia Nat'l Baseline: 2011	11	2012 SIR not available	78%	80%	0.20	0.92
C. difficile Infections Nat'l Baseline: 2011	11	2012 SIR not available	19%	27%	0.74	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

### WHAT IS ALASKA DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

Prevention efforts to reduce specific HAIs:

- Catheter-associated urinary tract infections
- Multidrug-resistant infections (C. difficile, CRE)
- Healthcare personnel influenza vaccination

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>\*</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# ARIZONA

HEALTHCARE
ASSOCIATED
INFECTIONS
PROGRESS

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

<del>\$</del>36%

LOWER COMPARED
TO NAT'L BASELINE

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Arizona hospitals reported no significant change in CLABSIS between 2012 and 2013.



Among the 43 hospitals in Arizona with enough data to calculate an SIR, 7% had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

**1** 2%

HIGHER COMPARED TO NAT'L BASELINE

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Arizona hospitals reported no significant change in CAUTIS between 2012 and 2013.



Among the 45 hospitals in Arizona with enough data to calculate an SIR, 11% had an SIR significantly worse than the national SIR of 1.06.

### MRSA Bacteremia **₹**3%

LOWER COMPARED TO NAT'L BASELINE

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.



Among the 35 hospitals in Arizona with enough data to calculate an SIR, 9% had an SIR significantly worse than the national SIR of 0.92.

### SSIs

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy



HIGHER COMPARED
TO NAT'I BASELINE

- Arizona hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Among the 17 hospitals in Arizona with enough data to calculate an SIR, 6% had an SIR significantly worse than the national SIR of 0.86.

SSI: Colon Surgery



HIGHER COMPARED
TO NAT'L BASELINE

- Arizona hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 39 hospitals in Arizona with enough data to calculate an SIR, 13% had an SIR significantly worse than the national SIR of 0.92.

### C. difficile Infections



THAN 1% HIGHER COMPARED TO NAT'L BASELINE

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 54 hospitals in Arizona with enough data to calculate an SIR, 26% had an SIR significantly worse than the national SIR of 0.90.





**LEGEND** 

2013 state SIR is
significantly lower (better)
than comparison group
in column header

Or Or Change in 2013 state
SIR compared to group
in column header is not
statistically significant

# ARIZONA

### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts.

Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Arizona: www.azdhs.gov/phs/oids/hai/
- Arizona validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



	HAI TYPE	# OF ARIZONA HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 97+	2013 STATE SIR vs. 2012 State SIR <sup>‡</sup>	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR vs. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
,	CLABSI Nat'l Baseline: 2008	56	<b>☆ 1</b> %	19%	₹ 36%	0.64	0.54
	CAUTI Nat'l Baseline: 2009	55	₹ 6%	₹ 3%	<b>☆ 2</b> %	1.02	1.06
	SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	52	₹ 3%	38%	<b>19</b> %	1.19	0.86
	SSI, Colon Surgery Nat'l Baseline: 2008	51	√ 1%	22%	<b>☆ 11</b> %	1.11	0.92
	MRSA Bacteremia Nat'l Baseline: 2011	63	2012 SIR not available	☆ 6%	₹ 3%	0.97	0.92
	C. difficile Infections Nat'l Baseline: 2011	62	2012 SIR not available	11%	<b>☆</b> < 1%	1.00	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

### 2013 state SIR cannot be calculated

2013 state SIR is significantly higher (worse) than comparison group in column header

### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

### WHAT IS ARIZONA DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

Prevention efforts to reduce specific HAIs:

- Catheter-associated urinary tract infections
- Multidrug-resistant infections (MRSA, C. difficile, CRE, and others)
- Long-term care facilities
- Hand hygiene
- Antibiotic stewardship
- Healthcare personnel influenza vaccination

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# **HEALTHCARE ASSOCIATED INFECTIONS PROGRESS**

# ARKANSAS

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.

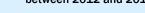


### **CLABSIs**

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Arkansas hospitals reported no significant change in CLABSIs between 2012 and 2013.



Among the 24 hospitals in Arkansas with enough data to calculate an SIR, 13% had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

HIGHER COMPARED TO NAT'L BASELINE

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Arkansas hospitals reported no significant change in CAUTIS between 2012 and 2013.

Among the 33 hospitals in Arkansas with enough data to calculate an SIR, 12% had an SIR significantly worse than the national SIR of 1.06.

### 

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant Staphylococcus aureus (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Among the 21 hospitals in Arkansas with enough data to calculate an SIR, 5% had an SIR significantly worse than the national SIR of 0.92.

### **SSIs**

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a surgical site infection. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

### SSI: Abdominal Hysterectomy

**₽**6%

LOWER COMPARED TO NAT'L BASELINE

- Arkansas hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.86.

### SSI: Colon Surgery

- Arkansas hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 25 hospitals in Arkansas with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.92.

### C. difficile Infections

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from Clostridium difficile (C. difficile), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 46 hospitals in Arkansas with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.90.





**LEGEND** 

2013 state SIR is
significantly lower (better)
than comparison group
in column header

Or Or Change in 2013 state
SIR compared to group
in column header is not
statistically significant

2013 state SIR is significantly higher (worse) than comparison group in column header

2013 state SIR cannot be calculated

# ARKANSAS

### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts. Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Arkansas: www.healthy.arkansas.gov/programsServices/epidemiology/Pages/HAI.aspx
- Arkansas validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



HAI TYPE	# OF ARKANSAS HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 87+	2013 STATE SIR vs. 2012 State SIR <sup>‡</sup>	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR vs. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	48	₹ 2%	<b>☆ 2</b> %	45%	0.55	0.54
CAUTI Nat'l Baseline: 2009	49	₹ 5%	₹ 2%	<b>☆ 4</b> %	1.04	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	39	<b>∱ 16</b> %	<b>☆</b> 9%	₹ 6%	0.94	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	39	<b>₹</b> 21%	₹ 16%	23%	0.77	0.92
MRSA Bacteremia Nat'l Baseline: 2011	47	2012 SIR not available	27%	<b>16</b> %	1.16	0.92
C. difficile Infections Nat'l Baseline: 2011	47	2012 SIR not available	31%	37%	0.63	0.90

<sup>\*</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

### WHAT IS THE STANDARDIZED INFECTION RATIO?

The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

### WHAT IS ARKANSAS DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

Arkansas has a state mandate to publicly report at least one HAI to NHSN.

Prevention efforts to reduce specific HAIs:

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Surgical site infections

- Multidrug-resistant infections (C. difficile)
- Hand hygiene
- Antibiotic stewardship
- Healthcare personnel influenza vaccination

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

## HEALTHCARE ASSOCIATED INFECTIONS PROGRESS

# CALIFORNIA

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

<del>\$</del>48%

LOWER COMPARED
TO NAT'I BASELINE

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

California hospitals reported no significant change in CLABSIs between 2012 and 2013.



Among the 290 hospitals in California with enough data to calculate an SIR, 12% had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

↓ 10% LOWER COMPARED TO NAT'L BASELINE

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

California hospitals reported a significant increase in CAUTIS between 2012 and 2013.



Among the 296 hospitals in California with enough data to calculate an SIR, 11% had an SIR significantly worse than the national SIR of 1.06.

### MRSA Bacteremia → 27% LOWER COMPARED TO NAT'L BASELINE\*

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.



Among the 225 hospitals in California with enough data to calculate an SIR, 2% had an SIR significantly worse than the national SIR of 0.92.

### SSIs

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy



LOWER COMPARED
TO NAT'L BASELINE

- California hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Among the 77 hospitals in California with enough data to calculate an SIR, 1% had an SIR significantly worse than the national SIR of 0.86.

### SSI: Colon Surgery



LOWER COMPARED
TO NAT'L BASELINE\*

- California hospitals reported a significant increase in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 204 hospitals in California with enough data to calculate an SIR, 5% had an SIR significantly worse than the national SIR of 0.92.

### C. difficile Infections



HIGHER COMPARED TO NAT'L BASELINE\*

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 325 hospitals in California with enough data to calculate an SIR, 25% had an SIR significantly worse than the national SIR of 0.90.





# CALIFORNIA

**HEALTHCARE-ASSOCIATED INFECTION (HAI)** 

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts.

Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in California: www.cdph.ca.gov/programs/hai/Pages/default.aspx
- California validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



### **LEGEND**

2013 state SIR is significantly lower (better) than comparison group in column header





Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

НАІ ТҮРЕ	# OF CALIFORNIA HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 417+	2013 STATE SIR vs. 2012 State SIR‡	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR VS. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	350	₹ 3%	4%	48%	0.52	0.54
CAUTI Nat'l Baseline: 2009	341	<b>1</b> 7%	16%	10%	0.90	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	303	₹ 7%	18%	28%	0.72	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	318	16%	12%	18%	0.82	0.92
MRSA Bacteremia Nat'l Baseline: 2011	359	2012 SIR not available	21%	₹ 27%	0.74	0.92
C. difficile Infections Nat'l Baseline: 2011	359	2012 SIR not available	18%	<b>1</b> 5%	1.05	0.90

<sup>\*</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

### WHAT IS THE STANDARDIZED INFECTION RATIO?

The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower. such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

### WHAT IS CALIFORNIA DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

California has a state mandate to publicly report at least one HAI to NHSN. California is one of 10 state health departments participating in CDC's Emerging Infections Program, which allows for extra surveillance and research of HAIs.

Prevention efforts to reduce specific HAIs:

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections

- Surgical site infections
- Multidrug-resistant infections (MRSA, C. difficile, CRE, and others)
- Long-term care facilities
- Hand hygiene
- Antibiotic stewardship
- Healthcare personnel influenza vaccination

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# HEALTHCARE ASSOCIATED INFECTIONS PROGRESS He in a rat are

# COLORADO

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

**♦**51%

LOWER COMPARED TO NAT'L BASELINE\*

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Colorado hospitals reported no significant change in CLABSIs between 2012 and 2013.



### **CAUTIS**

₹21% LOWER COMPARED TO NAT'L BASELINE

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Colorado hospitals reported no significant change in CAUTIS between 2012 and 2013.

Among the 33 hospitals in Colorado with enough data to calculate an SIR, 3% had an SIR significantly worse than the national SIR of 1.06.

### MRSA Bacteremia → 26% LOWER COMPARED TO NAT'L BASELINE\*

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Among the 27 hospitals in Colorado with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.92.

### **SSIs**

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy

**11**9

LOWER COMPARED TO NAT'L BASELINE

- Colorado hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Among the 10 hospitals in Colorado with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.86.

### SSI: Colon Surgery

<del>\$\frac{1}{2}\ 29\%</del>

LOWER COMPARED
TO NAT'L BASELINE\*

- Colorado hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 31 hospitals in Colorado with enough data to calculate an SIR, 6% had an SIR significantly worse than the national SIR of 0.92.

### C. difficile Infections

**1** 5%

HIGHER COMPARED TO NAT'L BASELINE

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 48 hospitals in Colorado with enough data to calculate an SIR, 27% had an SIR significantly worse than the national SIR of 0.90.







# COLORADO

### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

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Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Colorado: www.colorado.gov/pacific/cdphe/health-care-associated-infections-hai
- Colorado validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



HAI TYPE	# OF COLORADO HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 94+	2013 STATE SIR vs. 2012 State SIR‡	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR vs. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	52	☆ 5%	₹ 8%	51%	0.49	0.54
CAUTI Nat'l Baseline: 2009	52	₹ 13%	25%	21%	0.79	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	56	☆ 9%	☆ 3%	₹ 11%	0.89	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	57	₹ 3%	23%	29%	0.71	0.92
MRSA Bacteremia Nat'l Baseline: 2011	56	2012 SIR not available	₹ 19%	26%	0.74	0.92
C. difficile Infections Nat'l Baseline: 2011	55	2012 SIR not available	16%	☆ 5%	1.05	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header





Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

### WHAT IS THE STANDARDIZED INFECTION RATIO?

The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower. such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

### WHAT IS COLORADO DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

Colorado has a state mandate to publicly report at least one HAI to NHSN. Colorado is one of 10 state health departments participating in CDC's Emerging Infections Program, which allows for extra surveillance and research of HAIs.

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

### HEALTHCARE ASSOCIATED INFECTIONS PROGRESS

# CONNECTICUT

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

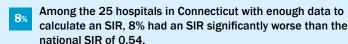
<del>\$</del>44%

LOWER COMPARED
TO NAT'I BASELINE

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Connecticut hospitals reported a significant decrease in CLABSIs between 2012 and 2013.



### **CAUTIS**

↑65% HIGHER COMPARED TO NAT'L BASELINE\*

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Connecticut hospitals reported no significant change in CAUTIS between 2012 and 2013.

Among the 26 hospitals in Connecticut with enough data to calculate an SIR, 35% had an SIR significantly worse than the national SIR of 1.06.

### MRSA Bacteremia 526% LOWER COMPARED TO NAT'L BASELINE\*

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Among the 23 hospitals in Connecticut with enough data to calculate an SIR, 4% had an SIR significantly worse than the national SIR of 0.92.

### **SSIs**

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy

**1**6%

HIGHER COMPARED TO NAT'L BASELINE

- Connecticut hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.86.

SSI: Colon Surgery

**13**%

HIGHER COMPARED

- Connecticut hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 24 hospitals in Connecticut with enough data to calculate an SIR, 8% had an SIR significantly worse than the national SIR of 0.92.

### C. difficile Infections

**1**%

HIGHER COMPARED TO NAT'L BASELINE

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 32 hospitals in Connecticut with enough data to calculate an SIR, 25% had an SIR significantly worse than the national SIR of 0.90.







**LEGEND** 

2013 state SIR is significantly lower (better) than comparison group in column header 介or办 Change in 2013 state SIR compared to group in column header is not statistically significant

2013 state SIR is significantly higher (worse) than comparison group in column header

2013 state SIR cannot be calculated

# CONNECTICUT

#### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts.

Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Connecticut: www.ct.gov/dph/cwp/view.asp?a=3136&q=417318
- Connecticut validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



HAI TYPE	# OF CONNECTICUT HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 41+	2013 STATE SIR vs. 2012 State SIR‡	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR vs. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	30	22%	<b>☆ 4</b> %	44%	0.56	0.54
CAUTI Nat'l Baseline: 2009	31	<b>11%</b>	<b>57</b> %	<b>6</b> 5%	1.65	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	29	<b>☆ 2</b> %	<b>☆ 23</b> %	☆ 6%	1.06	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	30	<b>☆</b> 7%	23%	<b>13</b> %	1.13	0.92
MRSA Bacteremia Nat'l Baseline: 2011	32	2012 SIR not available	19%	26%	0.74	0.92
C. difficile Infections Nat'l Baseline: 2011	32	2012 SIR not available	12%	<b>☆ 1</b> %	1.01	0.90

<sup>\*</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower. such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

#### WHAT IS CONNECTICUT DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

Connecticut has a state mandate to publicly report at least one HAI to NHSN. Connecticut is one of 10 state health departments participating in CDC's Emerging Infections Program, which allows for extra surveillance and research of HAIs.

- Central line-associated bloodstream infections

- Surgical site infections
- Multidrug-resistant infections (MRSA, C. difficile, CRE)
- Long-term care facilities
- Hand hygiene
- Antibiotic stewardship
- Healthcare personnel influenza vaccination

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# DELAWARE

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

<del>\$\ 29</del>%

LOWER COMPARED TO NAT'L BASELINE\*

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

- Delaware hospitals reported a significant increase in CLABSIs between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

↑30% HIGHER COMPARED TO NAT'L BASELINE\*

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

- Delaware hospitals reported no significant change in CAUTIS between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia ★20% HIGHER COMPARED

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.92.

# **SSIs**

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy

**15**% HIGH

HIGHER COMPARED
TO NAT'L BASELINE

- Delaware hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.86.

SSI: Colon Surgery

**19**%

LOWER COMPARED

- Delaware hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

**1**5%

HIGHER COMPARED TO NAT'L BASELINE

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.

Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.90.







**LEGEND** 

2013 state SIR is significantly lower (better) than comparison group in column header 介or办 Change in 2013 state SIR compared to group in column header is not statistically significant

2013 state SIR is significantly higher (worse) than comparison group in column header

2013 state SIR cannot be calculated

# DELAWARE

**HEALTHCARE-ASSOCIATED INFECTION (HAI)** 

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts.

Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Delaware: dhss.delaware.gov/dph/epi/haihomepage.html
- Delaware validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



	HAI TYPE	# OF DELAWARE HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 13+	2013 STATE SIR vs. 2012 State SIR‡	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR vs. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
,	CLABSI Nat'l Baseline: 2008	88	65%	32%	29%	0.71	0.54
	CAUTI Nat'l Baseline: 2009	8	<b>☆ 24</b> %	23%	<b>1</b> 30%	1.30	1.06
)	SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	7	☆ 9%	<b>☆ 34</b> %	<b>15</b> %	1.15	0.86
	SSI, Colon Surgery Nat'l Baseline: 2008	7	<b>☆ 20</b> %	<b>₹</b> 12%	₹ 19%	0.81	0.92
	MRSA Bacteremia Nat'l Baseline: 2011	8	2012 SIR not available	<b>☆ 31</b> %	<b>☆ 20</b> %	1.20	0.92
	C. difficile Infections Nat'l Baseline: 2011	8	2012 SIR not available	16%	<b>☆</b> 5%	1.05	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower. such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

#### WHAT IS DELAWARE DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

Delaware has a state mandate to publicly report at least one HAI to NHSN.

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Surgical site infections

- Multidrug-resistant infections (MRSA, C. difficile, CRE)
- Long-term care facilities
- Hand hygiene
- Antibiotic stewardship
- Healthcare personnel influenza vaccination

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# **ASSOCIATED INFECTIONS PROGRESS**

# DISTRICT OF COLUMBIA

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



# **CLABSIs**

LOWER COMPARED TO NAT'L BASELINE\*

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

- District of Columbia hospitals reported no significant change in CLABSIs between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

- District of Columbia hospitals reported no significant change in CAUTIS between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia **☆**58%

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant Staphylococcus aureus (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.92.

### **SSIs**

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a surgical site infection. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

#### SSI: Abdominal Hysterectomy

TO NAT'L BASELINE

- District of Columbia hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.86.

#### SSI: Colon Surgery

- District of Columbia hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from Clostridium difficile (C. difficile), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.

Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.90.







### DISTRICT OF COLUMBIA

#### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

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Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in District of Columbia: doh.dc.gov/page/healthcare-associated-infections
- District of Columbia validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf

THE STREET STREE	CDC

HAI TYPE	# OF DISTRICT OF COLUMBIA HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 12 <sup>+</sup>	2013 STATE SIR vs. 2012 State SIR <sup>‡</sup>	2013 STATE SIR VS. 2013 Nat'l SIR	2013 STATE SIR VS. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	8	₹ 9%	30%	30%	0.70	0.54
CAUTI Nat'l Baseline: 2009	7	₹ 1%	23%	<b>1</b> 30%	1.30	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	7	₹ 17%	<b>☆ 34</b> %	<b>15</b> %	1.15	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	7	<b>☆ 47</b> %	<b>₹</b> 24%	₹ 30%	0.71	0.92
MRSA Bacteremia Nat'l Baseline: 2011	9	2012 SIR not available	73%	<b>1</b> 58%	1.58	0.92
C. difficile Infections Nat'l Baseline: 2011	7	2012 SIR not available	₹ 3%	12%	0.88	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

#### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header



Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

#### WHAT IS DISTRICT OF COLUMBIA DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

District of Columbia has a state mandate to publicly report at least one HAI to NHSN.

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Multidrug-resistant infections (MRSA, C. difficile, CRE)

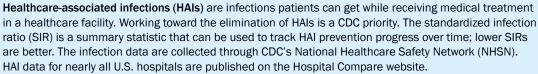
- Hand hygiene
- Antibiotic stewardship
- Healthcare personnel influenza vaccination

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# FLORIDA

HEALTHCARE
ASSOCIATED
INFECTIONS
PROGRESS





# **CLABSIs**

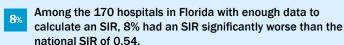
**41**%

LOWER COMPARED
TO NAT'I BASELINE

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Florida hospitals reported no significant change in CLABSIs between 2012 and 2013.



### **CAUTIS**

<del>+</del>6%

LOWER COMPARED TO NAT'L BASELINE\*

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Florida hospitals reported a significant increase in CAUTIS between 2012 and 2013.

Among the 180 hospitals in Florida with enough data to calculate an SIR, 9% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia 11% HIGHER COMPARED TO NAT'L BASELINE

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Among the 150 hospitals in Florida with enough data to calculate an SIR, 11% had an SIR significantly worse than the national SIR of 0.92.

# SSIs

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy



LOWER COMPARED
TO NAT'I BASELINE

- Florida hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Among the 47 hospitals in Florida with enough data to calculate an SIR, 6% had an SIR significantly worse than the national SIR of 0.86.

#### SSI: Colon Surgery

<del>+</del>21%

LOWER COMPARED
TO NAT'L BASELINE\*

- Florida hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 150 hospitals in Florida with enough data to calculate an SIR, 5% had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

**+11** 

LOWER COMPARED
TO NAT'I BASELINE\*

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 184 hospitals in Florida with enough data to calculate an SIR, 16% had an SIR significantly worse than the national SIR of 0.90.







# **FLORIDA**

#### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts. Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIS and prevention activities in Florida: www.floridahealth.gov/diseases-and-conditions/health-care-associated-infections/index.html
- Florida validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



HAI TYPE	# OF FLORIDA HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 237+	2013 STATE SIR vs. 2012 State SIR <sup>‡</sup>	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR vs. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	191	<b>☆</b> 6%	11%	41%	0.59	0.54
CAUTI Nat'l Baseline: 2009	190	11%	12%	6%	0.94	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	172	₹ 7%	<b>☆</b> 5%	₹ 10%	0.90	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	183	☆ 9%	15%	<b>21</b> %	0.79	0.92
MRSA Bacteremia Nat'l Baseline: 2011	190	2012 SIR not available	23%	11%	1.11	0.92
C. difficile Infections Nat'l Baseline: 2011	190	2012 SIR not available	₹ 2%	11%	0.89	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

#### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header



Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

#### WHAT IS FLORIDA DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Surgical site infections
- Multidrug-resistant infections (C. difficile, CRE)
- Long-term care facilities
- Antibiotic stewardship

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# **GEORGIA**

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

LOWER COMPARED TO NAT'L BASELINE\*

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Georgia hospitals reported no significant change in CLABSIs between 2012 and 2013.



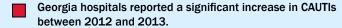
Among the 65 hospitals in Georgia with enough data to calculate an SIR, 15% had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

**1**36% HIGHER COMPARED TO NAT'L BASELINE\*

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.





Among the 75 hospitals in Georgia with enough data to calculate an SIR, 24% had an SIR significantly worse than the national SIR of 1.06.

### MRSA Bacteremia **↑**6%

HIGHER COMPARED TO NAT'L BASELINE

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant Staphylococcus aureus (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Among the 57 hospitals in Georgia with enough data to calculate an SIR, 11% had an SIR significantly worse than the national SIR of 0.92.

### **SSIs**

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a surgical site infection. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

#### SSI: Abdominal Hysterectomy



LOWER COMPARED TO NAT'L BASELINE

- Georgia hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Among the 32 hospitals in Georgia with enough data to calculate an SIR, 19% had an SIR significantly worse than the national SIR of 0.86.

#### SSI: Colon Surgery



- Georgia hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 55 hospitals in Georgia with enough data to calculate an SIR, 11% had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from Clostridium difficile (C. difficile), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 105 hospitals in Georgia with enough data to calculate an SIR, 9% had an SIR significantly worse than the national SIR of 0.90.





# GEORGIA

#### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts.

Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Georgia: dph.georgia.gov/healthcare-associated-infections
- Georgia validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



HAI TYPE	# OF GEORGIA HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 166+	2013 STATE SIR vs. 2012 State SIR <sup>‡</sup>	2013 STATE SIR VS. 2013 Nat'l SIR	2013 STATE SIR VS. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	102	<b>☆</b> 7%	35%	28%	0.72	0.54
CAUTI Nat'l Baseline: 2009	105	<b>32</b> %	30%	<b>1</b> 36%	1.36	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	90	<b>13</b> %	<b>15</b> %	√ 1%	0.99	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	96	☆ 5%	√ 7%	14%	0.87	0.92
MRSA Bacteremia Nat'l Baseline: 2011	111	2012 SIR not available	16%	☆ 6%	1.06	0.92
C. difficile Infections Nat'l Baseline: 2011	111	2012 SIR not available	9%	17%	0.83	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

# <u>LEGEND</u>

2013 state SIR is significantly lower (better) than comparison group in column header



Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

#### WHAT IS GEORGIA DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

Georgia has a state mandate to publicly report at least one HAI to NHSN. Georgia is one of 10 state health departments participating in CDC's Emerging Infections Program, which allows for extra surveillance and research of HAIs.

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections

- Surgical site infections
- Multidrug-resistant infections (MRSA, C. difficile, CRE)
- Long-term care facilities
- Antibiotic stewardship

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# HEALTHCARE ASSOCIATED INFECTIONS PROGRESS Healthcare in a healthc ratio (SIR) is are better

# HAWAII

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

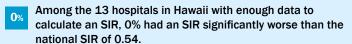
**₹**75%

LOWER COMPARED
TO NAT'I BASELINE

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Hawaii hospitals reported no significant change in CLABSIs between 2012 and 2013.



### **CAUTIS**

UNIT OF THE STATE OF THE STATE

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Hawaii hospitals reported a significant decrease in CAUTIS between 2012 and 2013.

Omega Among the 13 hospitals in Hawaii with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia $\bigcirc$ 43% LOWER COMPARED TO NAT'L BASELINE

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.92.

### SSIs

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

#### SSI: Abdominal Hysterectomy

↓ 100% LOWER COMPARED TO NAT'L BASELINE\*

- Hawaii hospitals reported a significant decrease in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.86.

#### SSI: Colon Surgery

**1** 3%

HIGHER COMPARED TO NAT'L BASELINE

- Hawaii hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

**4** 36%

LOWER COMPARED
TO NAT'L BASELINE\*

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 13 hospitals in Hawaii with enough data to calculate an SIR, 8% had an SIR significantly worse than the national SIR of 0.90.







# HAWAII

#### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts. Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Hawaii: health.hawaii.gov/docd/dib/healthcare-associated-infections-hais/
- Hawaii validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



HAI TYPE	# OF HAWAII HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 27+	2013 STATE SIR VS. 2012 State SIR <sup>‡</sup>	2013 STATE SIR VS. 2013 Nat'l SIR	2013 STATE SIR VS. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	15	<b>☆ 27</b> %	54%	75%	0.25	0.54
CAUTI Nat'l Baseline: 2009	15	37%	41%	₹ 38%	0.62	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	13	100%	100%	100%	0.00	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	13	☆ 6%	<b>☆ 12</b> %	☆ 3%	1.03	0.92
MRSA Bacteremia Nat'l Baseline: 2011	13	2012 SIR not available	38%	43%	0.57	0.92
C. difficile Infections Nat'l Baseline: 2011	13	2012 SIR not available	29%	36%	0.65	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

#### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header





SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

#### WHAT IS HAWAII DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

Hawaii has a state mandate to publicly report at least one HAI to NHSN.

- Surgical site infections
- Hand hygiene
- Antibiotic stewardship

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# **IDAHO**

HEALTHCARE ASSOCIATED INFECTIONS PROGRESS

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



# **CLABSIs**

√ 71% LOWER COMPARED TO NAT'L BASELINE

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

- Idaho hospitals reported no significant change in CLABSIs between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

1 LESS 1% HIGHER COMPARED TO NAT'L BASELINE

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Idaho hospitals reported no significant change in CAUTIS between 2012 and 2013.

Among the 10 hospitals in Idaho with enough data to calculate an SIR, 10% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia 55% LOWER COMPARED TO NAT'L BASELINE\*

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.92.

### **SSIs**

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy

↑ 28% HIGHER COMPARED TO NAT'L BASELINE

- Idaho hospitals reported a significant increase in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.86.

#### SSI: Colon Surgery

**₹**20%

LOWER COMPARED

- Idaho hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

**33**9

LOWER COMPARED
TO NAT'I BASELINE\*

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.

0%

Among the 15 hospitals in Idaho with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.90.







# IDAHO

#### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts. Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Idaho: healthandwelfare.idaho.gov/Health/DiseasesConditions/ MethicillinresistantStaphylococcusaureus(MRSA)/tabid/203/Default.aspx
- Idaho validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



#### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header



Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

HAI TYPE	# OF IDAHO HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 47+	2013 STATE SIR VS. 2012 State SIR <sup>‡</sup>	2013 STATE SIR VS. 2013 Nat'l SIR	2013 STATE SIR VS. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	16	₹ 11%	47%	71%	0.29	0.54
CAUTI Nat'l Baseline: 2009	17	₹ 12%	₹ 5%	<b>☆&lt;1</b> %	1.00	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	17	> 100%	<b>☆ 49</b> %	<b>☆ 28</b> %	1.28	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	18	<b>11</b> %	₹ 13%	₹ 20%	0.80	0.92
MRSA Bacteremia Nat'l Baseline: 2011	21	2012 SIR not available	51%	55%	0.45	0.92
C. difficile Infections Nat'l Baseline: 2011	20	2012 SIR not available	26%	33%	0.67	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

#### WHAT IS IDAHO DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

- Catheter-associated urinary tract infections
- Multidrug-resistant infections (C. difficile)
- Hand hygiene
- Antibiotic stewardship
- Healthcare personnel influenza vaccination

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# **ILLINOIS**

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

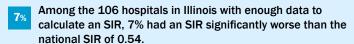
**₽**53%

LOWER COMPARED TO NAT'L BASELINE\*

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Illinois hospitals reported a significant decrease in CLABSIs between 2012 and 2013.



### **CAUTIS**

**₽**3%

LOWER COMPARED TO NAT'L BASELINE

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Illinois hospitals reported no significant change in CAUTIS between 2012 and 2013.

Among the 114 hospitals in Illinois with enough data to calculate an SIR, 7% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia - 29% LOWI

LOWER COMPARED

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

2%

Among the 95 hospitals in Illinois with enough data to calculate an SIR, 2% had an SIR significantly worse than the national SIR of 0.92.

# **SSIs**

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

#### SSI: Abdominal Hysterectomy

**42**%

LOWER COMPARED
TO NAT'L BASELINE\*

- Illinois hospitals reported a significant decrease in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Among the 38 hospitals in Illinois with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.86.

#### SSI: Colon Surgery

<del>+</del> 19%

LOWER COMPARED
TO NAT'L BASELINE\*

- Illinois hospitals reported significant increase in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 90 hospitals in Illinois with enough data to calculate an SIR, 4% had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

**-**9%

LOWER COMPARED TO NAT'L BASELINE\*

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 163 hospitals in Illinois with enough data to calculate an SIR, 11% had an SIR significantly worse than the national SIR of 0.90.





# ILLINOIS

#### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts.

Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Illinois: www.idph.state.il.us/patientsafety/index.htm#hai
- Illinois validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



#### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header



Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

HAI TYPE	# OF ILLINOIS HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 207+	2013 STATE SIR vs. 2012 State SIR <sup>‡</sup>	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR vs. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	148	17%	13%	53%	0.47	0.54
CAUTI Nat'l Baseline: 2009	148	₹ 7%	9%	₹ 3%	0.97	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	135	36%	33%	42%	0.58	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	138	<b>32</b> %	12%	19%	0.81	0.92
MRSA Bacteremia Nat'l Baseline: 2011	183	2012 SIR not available	23%	29%	0.72	0.92
C. difficile Infections Nat'l Baseline: 2011	183	2012 SIR not available	<b>☆&lt;1</b> %	9%	0.91	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

#### WHAT IS ILLINOIS DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

Illinois has a state mandate to publicly report at least one HAI to NHSN.

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Multidrug-resistant infections (C. difficile, CRE)

- Long-term care facilities
- Antibiotic stewardship
- Healthcare personnel influenza vaccination

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# INDIANA

HEALTHCARE ASSOCIATED INFECTIONS PROGRESS

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



**CLABSIs** 

**♥31**%

LOWER COMPARED TO NAT'L BASELINE\*

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Indiana hospitals reported no significant change in CLABSIS between 2012 and 2013.



Among the 58 hospitals in Indiana with enough data to calculate an SIR, 12% had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

↑23% HIGHER COMPARED TO NAT'L BASELINE\*

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Indiana hospitals reported a significant increase in CAUTIS between 2012 and 2013.



Among the 70 hospitals in Indiana with enough data to calculate an SIR, 9% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia 519% LOWER COMPARED TO NAT'L BASELINI

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

**5**%

Among the 43 hospitals in Indiana with enough data to calculate an SIR, 5% had an SIR significantly worse than the national SIR of 0.92.

### **SSIs**

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy



LOWER COMPARED
TO NAT'I BASELINE

- Indiana hospitals reported a significant increase in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Among the 17 hospitals in Indiana with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.86.

SSI: Colon Surgery

**1** 7%

HIGHER COMPARED TO NAT'L BASELINE

- Indiana hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- 9% Among the 53 hospitals in Indiana with enough data to calculate an SIR, 9% had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

**-**9%

LOWER COMPARED
TO NAT'L BASELINE\*

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 94 hospitals in Indiana with enough data to calculate an SIR, 13% had an SIR significantly worse than the national SIR of 0.90.





# INDIANA

**HEALTHCARE-ASSOCIATED INFECTION (HAI)** 

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts. Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Indiana: www.in.gov/isdh/25479.htm
- Indiana validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



#### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header



Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

HAI TYPE	# OF INDIANA HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 148+	2013 STATE SIR vs. 2012 State SIR <sup>‡</sup>	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR vs. Nat'l Baseline <sup>‡</sup>	2013 State Sir	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	104	<b>☆</b> 5%	30%	31%	0.69	0.54
CAUTI Nat'l Baseline: 2009	110	16%	16%	<b>23</b> %	1.23	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	98	61%	₹ 2%	₹ 16%	0.84	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	101	<b>☆ 2</b> %	16%	<b>☆ 7</b> %	1.07	0.92
MRSA Bacteremia Nat'l Baseline: 2011	102	2012 SIR not available	₹ 12%	19%	0.81	0.92
C. difficile Infections Nat'l Baseline: 2011	102	2012 SIR not available	<b>☆ 1</b> %	9%	0.92	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

#### WHAT IS INDIANA DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

Indiana has a state mandate to publicly report at least one HAI to NHSN.

- Long-term care facilities
- Antibiotic stewardship



<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>\*</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# **IOWA**

HEALTHCARE ASSOCIATED INFECTIONS PROGRESS

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



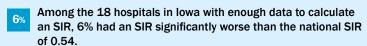
### **CLABSIs**

₹46% LOWER COM

### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

lowa hospitals reported no significant change in CLABSIs between 2012 and 2013.



### **CAUTIS**

□ 12% LOWER COMPARED TO NAT'L BASELINE

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Iowa hospitals reported no significant change in CAUTIS between 2012 and 2013.

Among the 34 hospitals in lowa with enough data to calculate an SIR, 6% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia → 56% LOWER COMPARED TO NAT'L BASELINE\*

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Among the 21 hospitals in lowa with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.92.

# SSIs

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy

**₽**6%

LOWER COMPARED TO NAT'L BASELINE

- Iowa hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.86.

SSI: Colon Surgery

**13**%

HIGHER COMPARED

- Iowa hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 22 hospitals in Iowa with enough data to calculate an SIR, 5% had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

**22**%

LOWER COMPARED
TO NAT'I BASELINE\*

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 45 hospitals in lowa with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.90.







# **IOWA**

#### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

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- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in lowa: www.idph.state.ia.us/hai\_prevention/default.asp
- lowa validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



# LEGEND

2013 state SIR is significantly lower (better) than comparison group in column header



Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

HAI TYPE	# OF IOWA HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 122+	2013 STATE SIR vs. 2012 State SIR <sup>‡</sup>	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR vs. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	50	<b>17</b> %	<b>√</b> < <b>1</b> %	46%	0.54	0.54
CAUTI Nat'l Baseline: 2009	68	- 6%	16%	<b>₹</b> 12%	0.88	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	33	<b>₹</b> 22%	☆ 9%	₹ 6%	0.94	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	36	<b>☆ 12</b> %	<b>☆ 23</b> %	<b>13</b> %	1.13	0.92
MRSA Bacteremia Nat'l Baseline: 2011	41	2012 SIR not available	52%	56%	0.44	0.92
C. difficile Infections Nat'l Baseline: 2011	57	2012 SIR not available	14%	22%	0.78	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

#### WHAT IS IOWA DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Surgical site infections
- Multidrug-resistant infections (C. difficile)
- Long-term care facilities
- Healthcare personnel influenza vaccination

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# KANSAS

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

<del>4</del>2%

LOWER COMPARED
TO NAT'I BASELINE

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Kansas hospitals reported no significant change in CLABSIs between 2012 and 2013.



Among the 20 hospitals in Kansas with enough data to calculate an SIR, 10% had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

12% HIGHER COMPARED TO NAT'L BASELINE\*

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Kansas hospitals reported no significant change in CAUTIS between 2012 and 2013.



Among the 28 hospitals in Kansas with enough data to calculate an SIR, 14% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia 52% LOWER COMPARE

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.



Among the 14 hospitals in Kansas with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.92.

# **SSIs**

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

#### SSI: Abdominal Hysterectomy



LOWER COMPARED
TO NAT'I BASFLINE

- Kansas hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.86.

#### SSI: Colon Surgery



HIGHER COMPARED
TO NAT'L BASELINE\*

- Kansas hospitals reported a significant increase in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 16 hospitals in Kansas with enough data to calculate an SIR, 31% had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections



LOWER COMPARED TO NAT'L BASELINE\*

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 51 hospitals in Kansas with enough data to calculate an SIR, 8% had an SIR significantly worse than the national SIR of 0.90.





# KANSAS

#### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

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Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Kansas: www.kdheks.gov/epi/hai.htm
- Kansas validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



#### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header





Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

HAI TYPE	# OF KANSAS HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 149+	2013 STATE SIR vs. 2012 State SIR‡	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR vs. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	49	<b>☆ 14</b> %	<b>☆</b> 7%	42%	0.58	0.54
CAUTI Nat'l Baseline: 2009	53	<b>17</b> %	<b>☆</b> 6%	<b>12</b> %	1.12	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	41	₹ 36%	52%	58%	0.42	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	43	47%	<b>52</b> %	<b>38</b> %	1.38	0.92
MRSA Bacteremia Nat'l Baseline: 2011	59	2012 SIR not available	48%	52%	0.48	0.92
C. difficile Infections Nat'l Baseline: 2011	64	2012 SIR not available	<b>☆ 2</b> %	8%	0.92	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower. such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

#### WHAT IS KANSAS DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Multidrug-resistant infections (C. difficile)
- Hand hygiene
- Antibiotic stewardship
- Healthcare personnel influenza vaccination

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# **KENTUCKY**

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

<del>\$</del>34%

LOWER COMPARED

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Kentucky hospitals reported a significant decrease in CLABSIs between 2012 and 2013.



Among the 38 hospitals in Kentucky with enough data to calculate an SIR, 8% had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

+21% HIGHER COMPARED TO NAT'L BASELINE\*

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Kentucky hospitals reported no significant change in CAUTIS between 2012 and 2013.



Among the 54 hospitals in Kentucky with enough data to calculate an SIR, 11% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia **♠**27% †

HIGHER COMPARED

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

**18**%

Among the 33 hospitals in Kentucky with enough data to calculate an SIR, 18% had an SIR significantly worse than the national SIR of 0.92.

# **SSIs**

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

#### SSI: Abdominal Hysterectomy



LOWER COMPARED
TO NAT'I BASFIINE

- Kentucky hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Among the 13 hospitals in Kentucky with enough data to calculate an SIR, 8% had an SIR significantly worse than the national SIR of 0.86.

#### SSI: Colon Surgery



LOWER COMPARED
TO NAT'L BASELINE\*

- Kentucky hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 36 hospitals in Kentucky with enough data to calculate an SIR, 6% had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections



LOWER COMPARED TO NAT'L BASELINE

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 69 hospitals in Kentucky with enough data to calculate an SIR, 12% had an SIR significantly worse than the national SIR of 0.90.







# **KENTUCKY**

#### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts.

Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Kentucky: chfs.ky.gov/dph/epi/hai
- Kentucky validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



# <u>LEGEND</u>

2013 state SIR is significantly lower (better) than comparison group in column header



Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

HAI TYPE	# OF KENTUCKY HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 116+	2013 STATE SIR vs. 2012 State SIR‡	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR vs. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	72	26%	<b>1</b> 24%	34%	0.67	0.54
CAUTI Nat'l Baseline: 2009	73	☆ 3%	15%	<b>1</b> 21%	1.21	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	60	<b>☆ 12</b> %	<b>☆</b> 5%	₹ 11%	0.90	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	66	<b>↓</b> 4%	17%	24%	0.76	0.92
MRSA Bacteremia Nat'l Baseline: 2011	71	2012 SIR not available	40%	<b>27</b> %	1.27	0.92
C. difficile Infections Nat'l Baseline: 2011	71	2012 SIR not available	7%	₹ 3%	0.97	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

#### WHAT IS KENTUCKY DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Surgical site infections
- Multidrug-resistant infections (MRSA, C. difficile, CRE, and others)
- Long-term care facilities

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# LOUISIANA

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

**31**%

LOWER COMPARED TO NAT'L BASELINE\*

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Louisiana hospitals reported no significant change in CLABSIs between 2012 and 2013.



Among the 47 hospitals in Louisiana with enough data to calculate an SIR, 15% had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

↓ 19% LOWER COMPARED TO NAT'L BASELINE

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Louisiana hospitals reported no significant change in CAUTIS between 2012 and 2013.



Among the 60 hospitals in Louisiana with enough data to calculate an SIR, 8% had an SIR significantly worse than the national SIR of 1.06.

# 

HIGHER COMPARED

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.



Among the 35 hospitals in Louisiana with enough data to calculate an SIR, 17% had an SIR significantly worse than the national SIR of 0.92.

# **SSIs**

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

#### SSI: Abdominal Hysterectomy



LOWER COMPARED
TO NAT'I BASELINE

- Louisiana hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Among the 12 hospitals in Louisiana with enough data to calculate an SIR, 8% had an SIR significantly worse than the national SIR of 0.86.

#### SSI: Colon Surgery



HIGHER COMPARED TO NAT'L BASELINE

- Louisiana hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 33 hospitals in Louisiana with enough data to calculate an SIR, 6% had an SIR significantly worse than the national SIR of 0.92.

### C. difficile Infections



LOWER COMPARED
TO NAT'I BASELINE\*

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 83 hospitals in Louisiana with enough data to calculate an SIR, 4% had an SIR significantly worse than the national SIR of 0.90.







# LOUISIANA

#### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts. Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Louisiana: new.dhh.louisiana.gov/index.cfm/page/824
- Louisiana validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



HAI TYPE	# OF LOUISIANA HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 172+	2013 STATE SIR vs. 2012 State SIR <sup>‡</sup>	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR VS. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	79	√ < 1%	28%	31%	0.69	0.54
CAUTI Nat'l Baseline: 2009	81	₹ 1%	24%	19%	0.81	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	79	₹ 20%	<b>☆ 2</b> %	<b>₹</b> 12%	0.88	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	78	<b>☆ 10</b> %	18%	☆ 9%	1.09	0.92
MRSA Bacteremia Nat'l Baseline: 2011	101	2012 SIR not available	34%	<b>22</b> %	1.22	0.92
C. difficile Infections Nat'l Baseline: 2011	101	2012 SIR not available	31%	37%	0.63	0.90

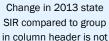
<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

#### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header







2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

#### WHAT IS LOUISIANA DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>\*</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# MAINE

HEALTHCARE ASSOCIATED INFECTIONS PROGRESS

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

₹34% LOWER COM

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

- Maine hospitals reported a significant decrease in CLABSIs between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

↑72% HIGHER COMPARED TO NAT'L BASELINE\*

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Maine hospitals reported no significant change in CAUTIS between 2012 and 2013.

Among the 13 hospitals in Maine with enough data to calculate an SIR, 23% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia **₹**28% LOWER COMPARED TO NAT'L BASELINE

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.92.

# **SSIs**

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy

↓ 13% LOWER COMPARED TO NAT'L BASELINE

- Maine hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.86.

SSI: Colon Surgery

**1** 20%

HIGHER COMPARED

- Maine hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 10 hospitals in Maine with enough data to calculate an SIR, 10% had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

**47**%

LOWER COMPARED
TO NAT'I BASELINE\*

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.

0%

Among the 36 hospitals in Maine with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.90.





# MAINE

#### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts.

Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Maine: www.maine.gov/dhhs/boh/ddc/hai/index.shtml
- Maine validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



#### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header



Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

HAI TYPE	# OF MAINE HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 41+	2013 STATE SIR vs. 2012 State SIR‡	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR vs. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	21	30%	<b>☆ 24</b> %	34%	0.66	0.54
CAUTI Nat'l Baseline: 2009	21	₹ 10%	63%	<b>1</b> 72%	1.72	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	19	<b>☆ 15</b> %	<b>1</b> %	₹ 13%	0.87	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	21	- 9%	☆ 30%	<b>☆ 20</b> %	1.20	0.92
MRSA Bacteremia Nat'l Baseline: 2011	25	2012 SIR not available	₹ 22%	₹ 28%	0.72	0.92
C. difficile Infections Nat'l Baseline: 2011	36	2012 SIR not available	41%	47%	0.53	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

#### WHAT IS MAINE DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

Maine has a state mandate to publicly report at least one HAI to NHSN.

- Multidrug-resistant infections (C. difficile, CRE)
- Long-term care facilities
- Hand hygiene
- Antibiotic stewardship

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>\*</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# **MARYLAND**

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

<del>4</del>9%

LOWER COMPARED TO NAT'L BASELINE\*

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Maryland hospitals reported no significant change in CLABSIs between 2012 and 2013.



Among the 39 hospitals in Maryland with enough data to calculate an SIR, 5% had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

438% HIGHER COMPARED TO NAT'L BASELINE\*

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Maryland hospitals reported a significant decrease in CAUTIS between 2012 and 2013.



Among the 36 hospitals in Maryland with enough data to calculate an SIR, 19% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia **▼**18% LOWER COMPARED TO NAT'L BASELINI

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

0%

Among the 10 hospitals in Maryland with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.92.

# SSIs

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy



HIGHER COMPARED
TO NAT'I BASFLINE

- Maryland hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.86.

SSI: Colon Surgery

**15**9

TO NAT'L BASELINE

- Maryland hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
  - Among the 15 hospitals in Maryland with enough data to calculate an SIR, 13% had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

**16**%

HIGHER COMPARED
TO NAT'I BASFLINE\*

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 44 hospitals in Maryland with enough data to calculate an SIR, 39% had an SIR significantly worse than the national SIR of 0.90.







**LEGEND** 

# MARYLAND

#### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts.

Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Maryland: www.marylandqmdc.org/
- Maryland validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



<b>─</b>		DATA TO CDC'S NHSN, 2013  Total Hospitals in State: 59 <sup>+</sup>	2012 State
2013 state SIR is significantly lower (better) than comparison group	CLABSI Nat'l Baseline: 2008	47	₹ 6
in column header  or  Change in 2013 state	CAUTI Nat'l Baseline: 2009	39	<del>\</del> 20
SIR compared to group	001		

2013 state SIR is
significantly higher (worse)
than comparison group in
column header

in column header is not statistically significant



2013 state SIR cannot be calculated

HAI TYPE	# OF MARYLAND HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 59+	2013 STATE SIR vs. 2012 State SIR <sup>‡</sup>	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR vs. Nat'l Baseline <sup>‡</sup>	2013 State Sir	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	47	- 6%	₹ 4%	49%	0.51	0.54
CAUTI Nat'l Baseline: 2009	39	26%	31%	<b>1</b> 38%	1.38	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	12	₹ 40%	<b>☆</b> 50%	<b>☆ 29</b> %	1.29	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	22	<b>↓</b> 2%	₹ 8%	₹ 15%	0.85	0.92
MRSA Bacteremia Nat'l Baseline: 2011	13	2012 SIR not available	₹ 10%	₹ 18%	0.82	0.92
C. difficile Infections Nat'l Baseline: 2011	46	2012 SIR not available	28%	16%	1.16	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower. such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

#### WHAT IS MARYLAND DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

Maryland has a state mandate to publicly report at least one HAI to NHSN. Maryland is one of 10 state health departments participating in CDC's Emerging Infections Program, which allows for extra surveillance and research of HAIs.

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections

- Multidrug-resistant infections (C. difficile, CRE, and others)
- Long-term care facilities
- Hand hygiene
- Antibiotic stewardship

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# **MASSACHUSETTS**

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

**49**%

LOWER COMPARED
TO NAT'I BASELINE

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Massachusetts hospitals reported no significant change in CLABSIs between 2012 and 2013.



Among the 48 hospitals in Massachusetts with enough data to calculate an SIR, 2% had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

↑58% HIGHER COMPARED TO NAT'L BASELINE\*

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Massachusetts hospitals reported no significant change in CAUTIS between 2012 and 2013.



Among the 55 hospitals in Massachusetts with enough data to calculate an SIR, 20% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia → 40% LOWER CO

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.



Among the 50 hospitals in Massachusetts with enough data to calculate an SIR, 2% had an SIR significantly worse than the national SIR of 0.92.

# SSIs

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy



HIGHER COMPARED

- Massachusetts hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Among the 11 hospitals in Massachusetts with enough data to calculate an SIR, 18% had an SIR significantly worse than the national SIR of 0.86.

#### SSI: Colon Surgery



HIGHER COMPARED TO NAT'L BASELINE\*

- Massachusetts hospitals reported a significant increase in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 42 hospitals in Massachusetts with enough data to calculate an SIR, 19% had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

**1**%

HIGHER COMPARED TO NAT'L BASELINE

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 68 hospitals in Massachusetts with enough data to calculate an SIR, 25% had an SIR significantly worse than the national SIR of 0.90.





**LEGEND** 

2013 state SIR is
significantly lower (better)
than comparison group
in column header

Or Or Change in 2013 state
SIR compared to group
in column header is not
statistically significant

# **MASSACHUSETTS**

#### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts. Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Massachusetts: www.mass.gov/eohhs/gov/departments/dph/programs/hcq/healthcare-quality/health-care-facilities/hospitals/
- Massachusetts validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



	HAI TYPE	# OF MASSACHUSETTS HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 95+	2013 STATE SIR vs. 2012 State SIR <sup>‡</sup>	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR vs. Nat'l Baseline <sup>‡</sup>	2013 State Sir	2013 NAT'L SIR
)	CLABSI Nat'l Baseline: 2008	69	<b>₹</b> 4%	₹ 5%	49%	0.51	0.54
	CAUTI Nat'l Baseline: 2009	69	☆ 9%	<b>1</b> 51%	<b>1</b> 58%	1.58	1.06
	SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	57	<b>15%</b>	<b>☆ 29</b> %	<b>☆ 11</b> %	1.11	0.86
	SSI, Colon Surgery Nat'l Baseline: 2008	62	49%	34%	22%	1.22	0.92
)	MRSA Bacteremia Nat'l Baseline: 2011	71	2012 SIR not available	35%	40%	0.60	0.92
	C. difficile Infections Nat'l Baseline: 2011	71	2012 SIR not available	12%	<b>☆ 1</b> %	1.01	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

# 2013 state SIR cannot be calculated

2013 state SIR is significantly higher (worse) than comparison group in column header

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

#### WHAT IS MASSACHUSETTS DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

Massachusetts has a state mandate to publicly report at least one HAI to NHSN.

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Surgical site infections
- Multidrug-resistant infections (MRSA, C. difficile)

- Long-term care facilities
- Hand hygiene
- Antibiotic stewardship
- Healthcare personnel influenza vaccination

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# MICHIGAN

HEALTHCARE
ASSOCIATED
INFECTIONS
PROGRESS

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



**CLABSIs** 

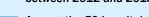
**₹**56% to

LOWER COMPARED TO NAT'L BASELINE\*

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Michigan hospitals reported no significant change in CLABSIs between 2012 and 2013.



Among the 59 hospitals in Michigan with enough data to calculate an SIR, 5% had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

↑25% HIGHER COMPARED TO NAT'L BASELINE\*

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Michigan hospitals reported a significant increase in CAUTIS between 2012 and 2013.

Among the 75 hospitals in Michigan with enough data to calculate an SIR, 20% had an SIR significantly worse than the national SIR of 1.06.

### MRSA Bacteremia **₹**1%

LOWER COMPARED TO NAT'L BASELINE

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Among the 57 hospitals in Michigan with enough data to calculate an SIR, 14% had an SIR significantly worse than the national SIR of 0.92.

# SSIs

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy

**1** 24%

HIGHER COMPARED
TO NAT'L BASELINE

- Michigan hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Among the 24 hospitals in Michigan with enough data to calculate an SIR, 21% had an SIR significantly worse than the national SIR of 0.86.

SSI: Colon Surgery

**1** 5%

HIGHER COMPARED TO NAT'L BASELINE

- Michigan hospitals reported a significant increase in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 57 hospitals in Michigan with enough data to calculate an SIR, 14% had an SIR significantly worse than the national SIR of 0.92.

### C. difficile Infections

**-**9%

LOWER COMPARED TO NAT'L BASELINE\*

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 100 hospitals in Michigan with enough data to calculate an SIR, 7% had an SIR significantly worse than the national SIR of 0.90.







# MICHIGAN

#### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

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Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Michigan: www.michigan.gov/mdch/0.4612,7-132-2945 5104 55205—,00.html
- Michigan validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



HAI TYPE	# OF MICHIGAN HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 157+	2013 STATE SIR vs. 2012 State SIR <sup>‡</sup>	2013 STATE SIR VS. 2013 Nat'l SIR	2013 STATE SIR VS. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	97	☆ 3%	19%	56%	0.44	0.54
CAUTI Nat'l Baseline: 2009	98	25%	19%	<b>1</b> 25%	1.25	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	88	<b>15</b> %	46%	<b>☆ 24</b> %	1.24	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	92	<b>21</b> %	15%	☆ 5%	1.05	0.92
MRSA Bacteremia Nat'l Baseline: 2011	104	2012 SIR not available	☆ 8%	<b>↓</b> 1%	0.99	0.92
C. difficile Infections Nat'l Baseline: 2011	104	2012 SIR not available	<b>☆ 1</b> %	9%	0.91	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header





Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower. such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

#### WHAT IS MICHIGAN DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Surgical site infections
- Multidrug-resistant infections (MRSA, C. difficile, CRE)
- Long-term care facilities
- Hand hygiene
- Antibiotic stewardship

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# **MINNESOTA**

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

**₹**56%

LOWER COMPARED TO NAT'L BASELINE\*

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Minnesota hospitals reported no significant change in CLABSIs between 2012 and 2013.



Among the 19 hospitals in Minnesota with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

↑26% HIGHER COMPARED TO NAT'L BASELINE\*

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Minnesota hospitals reported a significant decrease in CAUTIS between 2012 and 2013.

Among the 26 hospitals in Minnesota with enough data to calculate an SIR, 19% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia 55% LOWER COMPARED TO NAT'L BASELINE\*

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Among the 23 hospitals in Minnesota with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.92.

# **SSIs**

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy

**1** 2%

HIGHER COMPARED TO NAT'L BASELINE

- Minnesota hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Among the 10 hospitals in Minnesota with enough data to calculate an SIR, 10% had an SIR significantly worse than the national SIR of 0.86.

#### SSI: Colon Surgery

**₽**2%

LOWER COMPARED
TO NAT'L BASELINE

- Minnesota hospitals reported a significant increase in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 28 hospitals in Minnesota with enough data to calculate an SIR, 7% had an SIR significantly worse than the national SIR of 0.92.

### C. difficile Infections

**4** 17

LOWER COMPARED
TO NAT'I BASELINE\*

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 53 hospitals in Minnesota with enough data to calculate an SIR, 13% had an SIR significantly worse than the national SIR of 0.90.





**LEGEND** 

2013 state SIR is
significantly lower (better)
than comparison group
in column header

Or Or Change in 2013 state
SIR compared to group
in column header is not
statistically significant

2013 state SIR is significantly higher (worse) than comparison group in column header

2013 state SIR cannot be calculated

# MINNESOTA

**HEALTHCARE-ASSOCIATED INFECTION (HAI)** 

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- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Minnesota: www.health.state.mn.us/divs/idepc/dtopics/hai/index.html
- Minnesota validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



HAI TYPE	# OF MINNESOTA HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 144+	2013 STATE SIR vs. 2012 State SIR <sup>‡</sup>	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR vs. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	47	₹ 7%	18%	56%	0.44	0.54
CAUTI Nat'l Baseline: 2009	51	14%	19%	<b>1</b> 26%	1.26	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	50	√ 5%	<b>☆ 19</b> %	<b>☆ 2</b> %	1.02	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	51	44%	☆ 7%	<b>₹</b> 2%	0.98	0.92
MRSA Bacteremia Nat'l Baseline: 2011	53	2012 SIR not available	51%	55%	0.45	0.92
C. difficile Infections Nat'l Baseline: 2011	55	2012 SIR not available	8%	<b>17</b> %	0.83	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

#### WHAT IS MINNESOTA DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

Minnesota has a state mandate to publicly report at least one HAI to NHSN. Minnesota is one of 10 state health departments participating in CDC's Emerging Infections Program, which allows for extra surveillance and research of HAIs.

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections

- Surgical site infections
- Multidrug-resistant infections (C. difficile)
- Long-term care facilities
- Antibiotic stewardship

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# **MISSISSIPPI**

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

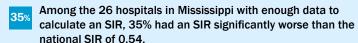
**₹**23%

LOWER COMPARED TO NAT'L BASELINE\*

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Mississippi hospitals reported a significant decrease in CLABSIs between 2012 and 2013.



### **CAUTIS**

**1**8%

HIGHER COMPARED TO NAT'L BASELINE

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Mississippi hospitals reported no significant change in CAUTIS between 2012 and 2013.

Among the 33 hospitals in Mississippi with enough data to calculate an SIR, 15% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia 13% HIGHER COMPARED TO NAT'L BASELINE

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Among the 23 hospitals in Mississippi with enough data to calculate an SIR, 22% had an SIR significantly worse than the national SIR of 0.92.

# SSIs

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy

**16**%

LOWER COMPARED

- Mississippi hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Among the 11 hospitals in Mississippi with enough data to calculate an SIR, 9% had an SIR significantly worse than the national SIR of 0.86.

SSI: Colon Surgery

**19**%

LOWER COMPARED

- Mississippi hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some state-specific colon surgery SIRs compared to 2012.
- Among the 22 hospitals in Mississippi with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

**40**%

LOWER COMPARED
TO NAT'I BASELINE\*

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 56 hospitals in Mississippi with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.90.







**LEGEND** 

2013 state SIR is
significantly lower (better)
than comparison group
in column header

Or Or Change in 2013 state
SIR compared to group
in column header is not
statistically significant

2013 state SIR is significantly higher (worse) than comparison group in column header

# MISSISSIPPI

### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

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- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Mississippi: www.msdh.ms.gov/msdhsite/\_static/14,0,194.html
- Mississippi validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



	НАІ ТҮРЕ	# OF MISSISSIPPI HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 111 <sup>+</sup>	2013 STATE SIR vs. 2012 State SIR‡	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR VS. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
<b>CLA</b> Nat'l	BSI Baseline: 2008	47	18%	44%	23%	0.77	0.54
<b>CAU</b> Nat'l	ITI Baseline: 2009	48	₹ 10%	<b>☆ 2</b> %	<b>☆ 8</b> %	1.08	1.06
	Abdominal Hysterectomy Baseline: 2008	42	₹ 36%	₹ 2%	₹ 16%	0.84	0.86
	Colon Surgery Baseline: 2008	43	<b>↓</b> 1%	<b>₹</b> 12%	₹ 19%	0.81	0.92
	SA Bacteremia Baseline: 2011	64	2012 SIR not available	23%	<b>13</b> %	1.13	0.92
	ifficile Infections Baseline: 2011	65	2012 SIR not available	34%	40%	0.60	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

### be calculated

2013 state SIR cannot

### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

### WHAT IS MISSISSIPPI DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

Prevention efforts to reduce specific HAIs:

Multidrug-resistant infections

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>\*</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# **MISSOURI**

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

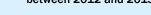
**₹**58%

LOWER COMPARED TO NAT'L BASELINE\*

### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Missouri hospitals reported no significant change in CLABSIs between 2012 and 2013.



Among the 47 hospitals in Missouri with enough data to calculate an SIR, 9% had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

**1**6%

TO NAT'L BASELINE

### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Missouri hospitals reported no significant change in CAUTIS between 2012 and 2013.

Among the 54 hospitals in Missouri with enough data to calculate an SIR, 17% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia -20% LOWER COMPARED TO NAT'L BASELINE\*

### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

5%

Among the 43 hospitals in Missouri with enough data to calculate an SIR, 5% had an SIR significantly worse than the national SIR of 0.92.

# SSIs

### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy

**₹**32%

LOWER COMPARED
TO NAT'I RASELINE\*

- Missouri hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Among the 18 hospitals in Missouri with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.86.

SSI: Colon Surgery

**31**%

LOWER COMPARED

- Missouri hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 47 hospitals in Missouri with enough data to calculate an SIR, 4% had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

**4** 149

LOWER COMPARED
TO NAT'I BASELINE\*

### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 78 hospitals in Missouri with enough data to calculate an SIR, 8% had an SIR significantly worse than the national SIR of 0.90.





# **MISSOURI**

**HEALTHCARE-ASSOCIATED INFECTION (HAI)** 

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- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Missouri: health.mo.gov/data/hai/
- Missouri validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header



Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

HAI TYPE	# OF MISSOURI HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 135+	2013 STATE SIR vs. 2012 State SIR‡	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR vs. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	74	₹ 9%	22%	58%	0.42	0.54
CAUTI Nat'l Baseline: 2009	76	<b>☆ 10</b> %	<b>☆ &lt;1</b> %	<b>☆</b> 6%	1.06	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	67	₹ 5%	₹ 22%	32%	0.68	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	74	☆ 6%	25%	31%	0.69	0.92
MRSA Bacteremia Nat'l Baseline: 2011	82	2012 SIR not available	14%	₹ 20%	0.80	0.92
C. difficile Infections Nat'l Baseline: 2011	82	2012 SIR not available	5%	14%	0.86	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

### WHAT IS MISSOURI DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Surgical site infections
- Multidrug-resistant infections (MRSA, C. difficile, CRE)
- Long-term care facilities
- Antibiotic stewardship



<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# MONTANA

HEALTHCARE ASSOCIATED INFECTIONS PROGRESS

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

**437**%

LOWER COMPARED TO NAT'L BASELINE\*

### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

- Montana hospitals reported no significant change in CLABSIs between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

₹32% LOWER COMPARED TO NAT'I BASELINE

### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Montana hospitals reported no significant change in CAUTIS between 2012 and 2013.

Among the 10 hospitals in Montana with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia 50% LOWER COMPARED TO NAT'L BASELINE\*

### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.92.

# SSIs

### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy



- Montana hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.86.

SSI: Colon Surgery

**4** 16%

LOWER COMPARED

- Montana hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

<del>+</del> 18

TO NAT'L BASELINE\*

### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 13 hospitals in Montana with enough data to calculate an SIR, 8% had an SIR significantly worse than the national SIR of 0.90.







# MONTANA

### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts.

Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Montana: dphhs.mt.gov/publichealth/cdepi/haiprevention
- Montana validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



# LEGEND

2013 state SIR is significantly lower (better) than comparison group in column header



Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

HAI TYPE	# OF MONTANA HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 64+	2013 STATE SIR vs. 2012 State SIR‡	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR vs. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	14	<b>☆</b> 30%	<b>☆ 18</b> %	37%	0.63	0.54
CAUTI Nat'l Baseline: 2009	14	₹ 21%	35%	32%	0.68	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	14	<b>☆ 24</b> %	<b>☆ 16</b> %	<b>☆ &lt; 1</b> %	1.00	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	14	<b>☆ 83</b> %	₹ 9%	₹ 16%	0.84	0.92
MRSA Bacteremia Nat'l Baseline: 2011	15	2012 SIR not available	₹ 45%	50%	0.50	0.92
C. difficile Infections Nat'l Baseline: 2011	16	2012 SIR not available	₹ 9%	18%	0.83	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

### WHAT IS MONTANA DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Hand hygiene
- Antibiotic stewardship

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# **NEBRASKA**

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

→ 29% LOWER COMPARED TO NAT'L BASELINE

### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Nebraska hospitals reported no significant change in CLABSIs between 2012 and 2013.



Among the 16 hospitals in Nebraska with enough data to calculate an SIR, 13% had an SIR significantly worse than the national SIR of 0.54.

## **CAUTIS**

₩8%

LOWER COMPARED TO NAT'L BASELINE

### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Nebraska hospitals reported no significant change in CAUTIS between 2012 and 2013.



Among the 19 hospitals in Nebraska with enough data to calculate an SIR, 11% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia 38% LOWER COMPARED TO NAT'L BASELINE\*

### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.



Among the 10 hospitals in Nebraska with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.92.

# SSIs

### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy



LOWER COMPARED
TO NAT'I BASELINE

- Nebraska hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.86.

SSI: Colon Surgery



HIGHER COMPARED

- Nebraska hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- **25**%

Among the 12 hospitals in Nebraska with enough data to calculate an SIR, 25% had an SIR significantly worse than the national SIR of 0.92.

## C. difficile Infections

**4**39%

LOWER COMPARED
TO NAT'I BASELINE\*

### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 24 hospitals in Nebraska with enough data to calculate an SIR, 4% had an SIR significantly worse than the national SIR of 0.90.





**LEGEND** 

2013 state SIR is
significantly lower (better)
than comparison group
in column header

Or Or Change in 2013 state
SIR compared to group
in column header is not
statistically significant

# **NEBRASKA**

### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts. Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Nebraska: dhhs.ne.gov/Pages/default.aspx
- Nebraska validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



НАІ ТҮРЕ	# OF NEBRASKA HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 95+	2013 STATE SIR VS. 2012 State SIR‡	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR VS. Nat'l Base <sup>‡</sup> line	2013 STATE SIR	2013 Nat'l Sir
CLABSI lat'l Baseline: 2008	20	₹ 4%	<b>1</b> 32%	29%	0.71	0.54
CAUTI lat'l Baseline: 2009	20	√ 5%	<b>₹</b> 12%	₹ 8%	0.93	1.06
SSI, Abdominal Hysterectomy lat'l Baseline: 2008	19	₹ 39%	₹ 27%	37%	0.63	0.86
SSI, Colon Surgery lat'l Baseline: 2008	19	<b>☆</b> 6%	41%	30%	1.30	0.92
MRSA Bacteremia lat'l Baseline: 2011	24	2012 SIR not available	32%	38%	0.62	0.92
C. difficile Infections lat'l Baseline: 2011	24	2012 SIR not available	32%	39%	0.61	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

# be calculated

2013 state SIR cannot

2013 state SIR is significantly higher (worse) than comparison group in column header

### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

### WHAT IS NEBRASKA DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Surgical site infections
- Multidrug-resistant infections (MRSA, C. difficile, CRE)
- Antibiotic stewardship
- Healthcare personnel influenza vaccination

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# **NEVADA**

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

LOWER COMPARED TO NAT'L BASELINE\*

### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Nevada hospitals reported no significant change in CLABSIs between 2012 and 2013.



Among the 19 hospitals in Nevada with enough data to calculate an SIR, 26% had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

HIGHER COMPARED TO NAT'L BASELINE

### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Nevada hospitals reported no significant change in CAUTIS between 2012 and 2013.



Among the 20 hospitals in Nevada with enough data to calculate an SIR, 15% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia **₹**21%

### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant Staphylococcus aureus (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.



Among the 16 hospitals in Nevada with enough data to calculate an SIR, 6% had an SIR significantly worse than the national SIR of 0.92.

# **SSIs**

### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a surgical site infection. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy



TO NAT'I BASFLINE

- Nevada hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.86.

SSI: Colon Surgery



HIGHER COMPARED TO NAT'L BASELINE

- Nevada hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.

Among the 14 hospitals in Nevada with enough data to calculate an SIR, 14% had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from Clostridium difficile (C. difficile), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 21 hospitals in Nevada with enough data to calculate an SIR, 38% had an SIR significantly worse than the national SIR of 0.90.





# **NEVADA**

### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

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Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Nevada: health.nv.gov/IPCInitiative\_HAInfections.htm
- Nevada validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header



Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

HAI TYPE	# OF NEVADA HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 46+	2013 STATE SIR vs. 2012 State SIR <sup>‡</sup>	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR vs. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	23	<b>☆</b> 6%	18%	37%	0.63	0.54
CAUTI Nat'l Baseline: 2009	24	<b>☆</b> 9%	<b>☆ 2</b> %	<b>☆ 8</b> %	1.08	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	20	<b>☆ 23</b> %	₹ 9%	₹ 22%	0.78	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	22	<b>↓</b> 4%	<b>☆ 16</b> %	<b>☆</b> 7%	1.07	0.92
MRSA Bacteremia Nat'l Baseline: 2011	23	2012 SIR not available	₹ 14%	<b>₹</b> 21%	0.79	0.92
C. difficile Infections Nat'l Baseline: 2011	22	2012 SIR not available	30%	<b>1</b> 7%	1.17	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

### WHAT IS NEVADA DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

Nevada has a state mandate to publicly report at least one HAI to NHSN.

- Catheter-associated urinary tract infections
- Multidrug-resistant infections (C. difficile and others)
- Hand hygiene
- Antibiotic stewardship



<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# NEW HAMPSHIRE

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

**♦**66%

LOWER COMPARED TO NAT'L BASELINE\*

### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

- New Hampshire hospitals reported no significant change in CLABSIs between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

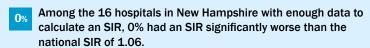
**₹8**%

LOWER COMPARED TO NAT'L BASELINE

### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

New Hampshire hospitals reported no significant change in CAUTIs between 2012 and 2013.



# MRSA Bacteremia 50% LOWER COMPARED TO NAT'L BASELINE\*

### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.92.

# **SSIs**

### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy

**4**24%

LOWER COMPARED
TO NAT'L BASELINE

- New Hampshire hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.86.

### SSI: Colon Surgery

**₹31**%

LOWER COMPARED

- New Hampshire hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- 0% Among the 12 hospitals in New Hampshire with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

**4**15%

LOWER COMPARED
TO NAT'I BASELINE\*

### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 21 hospitals in New Hampshire with enough data to calculate an SIR, 5% had an SIR significantly worse than the national SIR of 0.90.





**LEGEND** 

2013 state SIR is significantly lower (better) than comparison group in column header 介or办 Change in 2013 state SIR compared to group in column header is not statistically significant

2013 state SIR is significantly higher (worse) than comparison group in column header

2013 state SIR cannot be calculated

# NEW HAMPSHIRE

**HEALTHCARE-ASSOCIATED INFECTION (HAI)** 

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts.

Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in New Hampshire: www.dhhs.nh.gov/dphs/cdcs/hai/index.htm
- New Hampshire validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



HAI TYPE	# OF NEW HAMPSHIRE HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 29 <sup>+</sup>	2013 STATE SIR vs. 2012 State SIR <sup>‡</sup>	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR VS. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	24	₹ 20%	36%	66%	0.35	0.54
CAUTI Nat'l Baseline: 2009	23	₹ 4%	₹ 13%	₹ 8%	0.92	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	22	<b>☆ 40</b> %	<b>₹ 12</b> %	₹ 24%	0.76	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	25	<b>13</b> %	₹ 25%	31%	0.69	0.92
MRSA Bacteremia Nat'l Baseline: 2011	21	2012 SIR not available	45%	50%	0.50	0.92
C. difficile Infections Nat'l Baseline: 2011	22	2012 SIR not available	₹ 6%	15%	0.85	0.90

<sup>\*</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

### WHAT IS THE STANDARDIZED INFECTION RATIO?

The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower. such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

### WHAT IS NEW HAMPSHIRE DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

New Hampshire has a state mandate to publicly report at least one HAI to NHSN.

- Central line-associated bloodstream infections
- Surgical site infections

- Multidrug-resistant infections (C. difficile)
- Long-term care facilities
- Hand hygiene
- Antibiotic stewardship
- Healthcare personnel influenza vaccination

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# **NEW JERSEY**

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

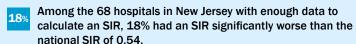
**₹**39%

LOWER COMPARED TO NAT'L BASELINE\*

### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.





### **CAUTIS**

**1** 2%

HIGHER COMPARED TO NAT'L BASELINE

### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

New Jersey hospitals reported a significant increase in CAUTIS between 2012 and 2013.

Among the 71 hospitals in New Jersey with enough data to calculate an SIR, 13% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia 14% HIGHER COMPARED TO NAT'L BASELINE

### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Among the 65 hospitals in New Jersey with enough data to calculate an SIR, 20% had an SIR significantly worse than the national SIR of 0.92.

# SSIs

### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy



LOWER COMPARED
TO NAT'I BASELINE

- New Jersey hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Among the 21 hospitals in New Jersey with enough data to calculate an SIR, 5% had an SIR significantly worse than the national SIR of 0.86.

### SSI: Colon Surgery

**4** 14%

LOWER COMPARED

- New Jersey hospitals reported a significant increase in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 57 hospitals in New Jersey with enough data to calculate an SIR, 5% had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

**1**2%

HIGHER COMPARED
TO NAT'L BASELINE

### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 72 hospitals in New Jersey with enough data to calculate an SIR, 33% had an SIR significantly worse than the national SIR of 0.90.







# **NEW JERSEY**

### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts.

Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in New Jersey: www.state.nj.us/health/hais/index.shtml
- New Jersey validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header



Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

HAI TYPE	# OF NEW JERSEY HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 94+	2013 STATE SIR vs. 2012 State SIR‡	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR vs. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	72	13%	14%	39%	0.61	0.54
CAUTI Nat'l Baseline: 2009	72	16%	₹ 4%	<b>☆ 2</b> %	1.02	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	66	₹ 18%	₹ 3%	₹ 17%	0.83	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	72	<b>1</b> 37%	₹ 7%	14%	0.86	0.92
MRSA Bacteremia Nat'l Baseline: 2011	72	2012 SIR not available	25%	14%	1.14	0.92
C. difficile Infections Nat'l Baseline: 2011	72	2012 SIR not available	14%	<b>☆ 2</b> %	1.02	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

### WHAT IS NEW JERSEY DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

New Jersey has a state mandate to publicly report at least one HAI to NHSN.

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Surgical site infections

- Antibiotic stewardship
- Healthcare personnel influenza vaccination

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# HEALTHCARE ASSOCIATED INFECTIONS PROGRESS Healthcare-as in a healthcar ratio (SIR) is a are better. The

# **NEW MEXICO**

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



# **CLABSIs**

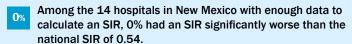
**→**51%

LOWER COMPARED TO NAT'L BASELINE\*

### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

New Mexico hospitals reported no significant change in CLABSIs between 2012 and 2013.



### **CAUTIS**

□ 17% LOWER COMPARED TO NAT'L BASELINE

### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

New Mexico hospitals reported no significant change in CAUTIS between 2012 and 2013.

Among the 19 hospitals in New Mexico with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia \$\frac{1}{2}\$69% | COMPARED TO NAT'L BASELINE

### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.92.

# **SSIs**

### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy

**4** 24%

LOWER COMPARED
TO NAT'L BASELINE

- New Mexico hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.86.

SSI: Colon Surgery

**27**%

LOWER COMPARED

- New Mexico hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

**1** 4%

HIGHER COMPARED TO NAT'L BASELINE

### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.

**13**%

Among the 31 hospitals in New Mexico with enough data to calculate an SIR, 13% had an SIR significantly worse than the national SIR of 0.90.







# NEW MEXICO

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- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in New Mexico: nmhealth.org/about/erd/ideb/hai/
- New Mexico validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



LEGEND	)

2013 state SIR is significantly lower (better) than comparison group in column header



SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

HAI TYPE	# OF NEW MEXICO HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 48+	2013 STATE SIR vs. 2012 State SIR‡	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR vs. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	36	₹ 21%	₹ 10%	51%	0.49	0.54
CAUTI Nat'l Baseline: 2009	35	₹ 14%	21%	₹ 17%	0.83	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	26	<b>☆</b> 7%	<b>₹</b> 12%	₹ 24%	0.76	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	27	<b>☆ 26</b> %	₹ 20%	₹ 27%	0.74	0.92
MRSA Bacteremia Nat'l Baseline: 2011	37	2012 SIR not available	67%	69%	0.31	0.92
C. difficile Infections Nat'l Baseline: 2011	39	2012 SIR not available	15%	<b>☆ 4</b> %	1.04	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

### WHAT IS THE STANDARDIZED INFECTION RATIO?

The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower. such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

### WHAT IS NEW MEXICO DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

New Mexico has a state mandate to publicly report at least one HAI to NHSN. New Mexico is one of 10 state health departments participating in CDC's Emerging Infections Program, which allows for extra surveillance and research of HAIs.

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections

- Surgical site infections
- Multidrug-resistant infections (C. difficile, CRE)
- Long-term care facilities
- Hand hygiene
- Antibiotic stewardship
- Healthcare personnel influenza vaccination

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# HEALTHCARE ASSOCIATED INFECTIONS Healthcare-associated infections (HAIs in a healthcare facility. Working toward

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



# **CLABSIs**

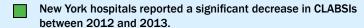
**PROGRESS** 

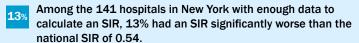
<del>\$</del>44%

LOWER COMPARED
TO NAT'I BASELINE

### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.





### **CAUTIS**

↑26% HIGHER COMPARED TO NAT'L BASELINE\*

### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

New York hospitals reported a significant decrease in CAUTIS between 2012 and 2013.

Among the 153 hospitals in New York with enough data to calculate an SIR, 20% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia ★1%

HIGHER COMPARED TO NAT'L BASELINE

### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Among the 133 hospitals in New York with enough data to calculate an SIR, 11% had an SIR significantly worse than the national SIR of 0.92.

### SSIs

### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy



HIGHER COMPARED TO NAT'L BASELINE\*

- New York hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Among the 51 hospitals in New York with enough data to calculate an SIR, 10% had an SIR significantly worse than the national SIR of 0.86.

### SSI: Colon Surgery

**4**31%

HIGHER COMPARED
TO NAT'L BASELINE\*

- New York hospitals reported a significant increase in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 120 hospitals in New York with enough data to calculate an SIR, 16% had an SIR significantly worse than the national SIR of 0.92.

### C. difficile Infections

**4**3%

LOWER COMPARED TO NAT'L BASELINE\*

### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 176 hospitals in New York with enough data to calculate an SIR, 23% had an SIR significantly worse than the national SIR of 0.90.







# **NEW YORK**

### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

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- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in New York: www.health.ny.gov/statistics/facilities/hospital/hospital\_acquired\_infections/
- New York validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header



Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

HAI TYPE	# OF NEW YORK HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 251+	2013 STATE SIR VS. 2012 State SIR <sup>‡</sup>	2013 STATE SIR VS. 2013 Nat'l SIR	2013 STATE SIR VS. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	172	11%	<b>☆</b> 5%	44%	0.56	0.54
CAUTI Nat'l Baseline: 2009	172	₹ 7%	21%	<b>2</b> 6%	1.26	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	158	₹ 9%	45%	<b>22</b> %	1.22	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	171	<b>1</b> 52%	47%	<b>31</b> %	1.31	0.92
MRSA Bacteremia Nat'l Baseline: 2011	179	2012 SIR not available	11%	<b>1</b> %	1.01	0.92
C. difficile Infections Nat'l Baseline: 2011	180	2012 SIR not available	9%	3%	0.97	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

### WHAT IS NEW YORK DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

New York has a state mandate to publicly report at least one HAI to NHSN. New York is one of 10 state health departments participating in CDC's Emerging Infections Program, which allows for extra surveillance and research of HAIs.

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections

- Surgical site infections
- Multidrug-resistant infections (C. difficile, CRE)
- Long-term care facilities
- Antibiotic stewardship
- Healthcare personnel influenza vaccination

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# **NORTH CAROLINA**

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

**47**%

LOWER COMPARED TO NAT'L BASELINE\*

### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

North Carolina hospitals reported no significant change in CLABSIS between 2012 and 2013.



Among the 60 hospitals in North Carolina with enough data to calculate an SIR, 7% had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

14% HIGHER COMPARED TO NAT'L BASELINE\*

### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

North Carolina hospitals reported no significant change in CAUTIS between 2012 and 2013.



Among the 77 hospitals in North Carolina with enough data to calculate an SIR, 13% had an SIR significantly worse than the national SIRof 1.06.

### MRSA Bacteremia **₹**6%

% LOWER COMPARED TO NAT'L BASELINE

### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.



Among the 57 hospitals in North Carolina with enough data to calculate an SIR, 2% had an SIR significantly worse than the national SIR of 0.92.

# SSIs

### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy



HIGHER COMPARED TO NAT'L BASELINE

- North Carolina hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Among the 23 hospitals in North Carolina with enough data to calculate an SIR, 13% had an SIR significantly worse than the national SIR of 0.86.

SSI: Colon Surgery



LOWER COMPARED
TO NAT'L BASELINE

- North Carolina hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- 9% Among the 55 hospitals in North Carolina with enough data to calculate an SIR, 9% had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

**4** 19

LOWER COMPARED
TO NAT'I BASELINE\*

### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 96 hospitals in North Carolina with enough data to calculate an SIR, 6% had an SIR significantly worse than the national SIR of 0.90.





# NORTH CAROLINA

**HEALTHCARE-ASSOCIATED INFECTION (HAI)** 

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- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in North Carolina: epi.publichealth.nc.gov/cd/diseases/hai.htm
- North Carolina validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf

DC

	HAI TYPE	# OF NORTH CAROLINA HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 133+	2013 STATE SIR vs. 2012 State SIR <sup>‡</sup>	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR VS. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
)	CLABSI Nat'l Baseline: 2008	98	<b>☆ 4</b> %	√ 1%	47%	0.53	0.54
	CAUTI Nat'l Baseline: 2009	98	<b>☆ 4</b> %	<b>8</b> %	14%	1.14	1.06
	SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	89	☆ 33%	<b>19</b> %	<b>☆ 2</b> %	1.02	0.86
	SSI, Colon Surgery Nat'l Baseline: 2008	93	<b>18</b> %	<b>↓</b> 1%	<b>₽</b> 9%	0.91	0.92
)	MRSA Bacteremia Nat'l Baseline: 2011	100	2012 SIR not available	☆ 3%	- 6%	0.94	0.92
	C. difficile Infections Nat'l Baseline: 2011	100	2012 SIR not available	10%	19%	0.81	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header







2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

### WHAT IS NORTH CAROLINA DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

North Carolina has a state mandate to publicly report at least one HAI to NHSN.

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Surgical site infections
- Antibiotic stewardship

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# HEALTHCARE ASSOCIATED INFECTIONS PROGRESS Healthcare-a in a healthca ratio (SIR) is are better. The

# NORTH DAKOTA

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

**♦**63%

LOWER COMPARED TO NAT'L BASELINE\*

### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

- North Dakota hospitals reported no significant change in CLABSIs between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

UNAT' BASELINE

### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

- North Dakota hospitals reported no significant change in CAUTIs between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 1.06.

# 

### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.92.

### **SSIs**

### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy

**1** 58%

HIGHER COMPARED
TO NAT'L BASELINE

- North Dakota hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.86.

SSI: Colon Surgery

**1** 20%

HIGHER COMPARED
TO NAT'L BASELINE

- North Dakota hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

**4** 19%

LOWER COMPARED
TO NAT'I BASELINE\*

### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.

Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.90.







# NORTH DAKOTA

### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

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- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in North Dakota: www.ndhealth.gov/disease/hai/
- North Dakota validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



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2013 state SIR is significantly lower (better) than comparison group in column header



Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

HAI TYPE	# OF NORTH DAKOTA HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 48 <sup>+</sup>	2013 STATE SIR vs. 2012 State SIR‡	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR vs. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	6	<b>☆ 2</b> %	₹ 30%	63%	0.37	0.54
CAUTI Nat'l Baseline: 2009	6	<b>☆ 11</b> %	34%	30%	0.70	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	6	<b>☆</b> 50%	<b>☆ 84</b> %	<b>☆</b> 58%	1.58	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	6	<b>₹</b> 24%	☆ 30%	<b>☆ 20</b> %	1.20	0.92
MRSA Bacteremia Nat'l Baseline: 2011	11	2012 SIR not available	<b>^</b> 27%	<b>16</b> %	1.16	0.92
C. difficile Infections Nat'l Baseline: 2011	11	2012 SIR not available	₹ 10%	19%	0.81	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

### WHAT IS NORTH DAKOTA DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Surgical site infections
- Multidrug-resistant infections (MRSA, C. difficile, CRE, and others)

- Long-term care facilities
- Hand hygiene
- Antibiotic stewardship
- Healthcare personnel influenza vaccination

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# OHIO

HEALTHCARE ASSOCIATED INFECTIONS PROGRESS

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

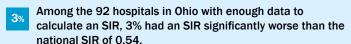
**₹**58% <sup>L</sup>

LOWER COMPARED TO NAT'L BASELINE\*

### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Ohio hospitals reported no significant change in CLABSIs between 2012 and 2013.



### **CAUTIS**

<del>\$</del>8%

LOWER COMPARED TO NAT'L BASELINE\*

### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Ohio hospitals reported no significant change in CAUTIS between 2012 and 2013.

9% Among the 105 hospitals in Ohio with enough data to calculate an SIR, 9% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia \$\fraction 16\% \quad \text{LOWER COMPARED TO NAT'L BASELINE}\$

### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Among the 87 hospitals in Ohio with enough data to calculate an SIR, 3% had an SIR significantly worse than the national SIR of 0.92.

### SSIs

### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy

**36**%

LOWER COMPARED
TO NAT'I BASELINE

- Ohio hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Among the 39 hospitals in Ohio with enough data to calculate an SIR, 3% had an SIR significantly worse than the national SIR of 0.86.

### SSI: Colon Surgery

**4** 9%

LOWER COMPARED TO NAT'L BASELINE

- Ohio hospitals reported a significant increase in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 89 hospitals in Ohio with enough data to calculate an SIR, 8% had an SIR significantly worse than the national SIR of 0.92.

### C. difficile Infections

<del>•</del> 7%

LOWER COMPARED
TO NAT'L BASELINE\*

### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 135 hospitals in Ohio with enough data to calculate an SIR, 16% had an SIR significantly worse than the national SIR of 0.90.







# OHIO

### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts. Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Ohio: www.odh.ohio.gov/odhprograms/dis/orbitdis/hai/haimain.aspx

	v.cdc.gov/hai/pdfs/sta	 	<b>,</b>

### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header



Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

HAI TYPE	# OF OHIO HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 203+	2013 STATE SIR vs. 2012 State SIR‡	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR VS. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	137	₹ 5%	23%	58%	0.42	0.54
CAUTI Nat'l Baseline: 2009	136	<b>☆ 2</b> %	14%	\$%	0.92	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	128	₹ 27%	26%	36%	0.64	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	131	<b>2</b> 6%	√ 1%	- 9%	0.91	0.92
MRSA Bacteremia Nat'l Baseline: 2011	144	2012 SIR not available	₹ 8%	16%	0.84	0.92
C. difficile Infections Nat'l Baseline: 2011	144	2012 SIR not available	<b>☆</b> 3%	7%	0.93	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

### WHAT IS OHIO DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

Ohio has a state mandate to publicly report at least one HAI to NHSN.

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Surgical site infections
- Multidrug-resistant infections (MRSA, C. difficile)
- Long-term care facilities

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>\*</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# OKLAHOMA

HEALTHCARE ASSOCIATED INFECTIONS PROGRESS

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

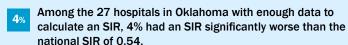
<del>\$</del>61%

LOWER COMPARED TO NAT'L BASELINE\*

### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Oklahoma hospitals reported no significant change in CLABSIs between 2012 and 2013.



### **CAUTIS**

UNIT COMPARED TO NAT'L BASELINE

### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Oklahoma hospitals reported a significant increase in CAUTIS between 2012 and 2013.

Among the 37 hospitals in Oklahoma with enough data to calculate an SIR, 5% had an SIR significantly worse than the national SIR of 1.06.

### MRSA Bacteremia **★**4%

4% HIGHER COMPARED TO NAT'L BASELINE

### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Among the 21 hospitals in Oklahoma with enough data to calculate an SIR, 10% had an SIR significantly worse than the national SIR of 0.92.

# **SSIs**

### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy

<del>\$\frac{1}{2}\ 50\%</del>

LOWER COMPARED TO NAT'L BASELINE\*

- Oklahoma hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.86.

SSI: Colon Surgery

**15**%

HIGHER COMPARED

- Oklahoma hospitals reported a significant increase in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 25 hospitals in Oklahoma with enough data to calculate an SIR, 12% had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

<del>+</del>11

TO NAT'L BASELINE\*

### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 70 hospitals in Oklahoma with enough data to calculate an SIR, 9% had an SIR significantly worse than the national SIR of 0.90.







# OKLAHOMA

### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

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- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Oklahoma: www.ok.gov/health/Protective\_Health/Medical\_Facilities\_Service/ Quality\_Initiatives/Healthcare-Associated\_Infections\_Prevention\_Program/
- Oklahoma validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header



Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

HAI TYPE	# OF OKLAHOMA HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 144+	2013 STATE SIR VS. 2012 State SIR <sup>‡</sup>	2013 STATE SIR VS. 2013 Nat'l SIR	2013 STATE SIR VS. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	53	₹ 18%	27%	61%	0.39	0.54
CAUTI Nat'l Baseline: 2009	58	<b>24</b> %	28%	23%	0.77	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	62	₹ 27%	43%	50%	0.50	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	56	<b>3</b> 9%	25%	<b>☆ 15</b> %	1.15	0.92
MRSA Bacteremia Nat'l Baseline: 2011	91	2012 SIR not available	<b>☆ 14</b> %	<b>☆ 4</b> %	1.05	0.92
C. difficile Infections Nat'l Baseline: 2011	91	2012 SIR not available	₹ 1%	11%	0.89	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

### WHAT IS OKLAHOMA DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

Oklahoma has a state mandate to publicly report at least one HAI to NHSN.

Prevention efforts to reduce specific HAIs:

Catheter-associated urinary tract infections

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# OREGON

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

**₹**70%

LOWER COMPARED
TO NAT'L BASELINE

### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Oregon hospitals reported no significant change in CLABSIs between 2012 and 2013.



Among the 23 hospitals in Oregon with enough data to calculate an SIR, 4% had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

16% HIGHER COMPARED TO NAT'L BASELINE\*

### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Oregon hospitals reported a significant decrease in CAUTIS between 2012 and 2013.



Among the 28 hospitals in Oregon with enough data to calculate an SIR, 14% had an SIR significantly worse than the national SIR of 1.06.

# 

### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.



Among the 19 hospitals in Oregon with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.92.

### **SSIs**

### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

### SSI: Abdominal Hysterectomy



HIGHER COMPARED
TO NAT'I BASFLINE

- Oregon hospitals reported a significant increase in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.86.

### SSI: Colon Surgery

<del>\$\frac{1}{25}\%</del>

LOWER COMPARED
TO NAT'L BASELINE\*

- Oregon hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 23 hospitals in Oregon with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

**24**%

LOWER COMPARED TO NAT'L BASELINE\*

### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 49 hospitals in Oregon with enough data to calculate an SIR, 10% had an SIR significantly worse than the national SIR of 0.90.





# OREGON

### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

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- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Oregon: public.health.oregon.gov/DiseasesConditions/CommunicableDisease/ HAI/Pages/index.aspx
- Oregon validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf





2013 state SIR is significantly lower (better) than comparison group in column header



Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

HAI TYPE	# OF OREGON HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 64+	2013 STATE SIR vs. 2012 State SIR‡	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR VS. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	49	₹ 23%	44%	70%	0.30	0.54
CAUTI Nat'l Baseline: 2009	50	18%	<b>☆</b> 9%	<b>1</b> 6%	1.16	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	46	<b>1</b> 64%	☆ 30%	<b>☆ 12</b> %	1.12	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	50	₹ 5%	18%	25%	0.75	0.92
MRSA Bacteremia Nat'l Baseline: 2011	49	2012 SIR not available	33%	38%	0.62	0.92
C. difficile Infections Nat'l Baseline: 2011	59	2012 SIR not available	16%	24%	0.76	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

### WHAT IS OREGON DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

Oregon has a state mandate to publicly report at least one HAI to NHSN. Oregon is one of 10 state health departments participating in CDC's Emerging Infections Program, which allows for extra surveillance and research of HAIs.

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections

- Surgical site infections
- Multidrug-resistant infections (MRSA, C. difficile, CRE, and others)
- Long-term care facilities
- Hand hygiene
- Antibiotic stewardship

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# PENNSYLVANIA

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

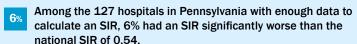
**→**51%

LOWER COMPARED TO NAT'L BASELINE\*

### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Pennsylvania hospitals reported no significant change in CLABSIs between 2012 and 2013.



### **CAUTIS**

**1**2%

HIGHER COMPARED TO NAT'L BASELINE

### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Pennsylvania hospitals reported a significant increase in CAUTIS between 2012 and 2013.

Among the 153 hospitals in Pennsylvania with enough data to calculate an SIR, 9% had an SIR significantly worse than the national SIR of 1.06.

## MRSA Bacteremia **↑**8%

HIGHER COMPARED TO NAT'L BASELINE

### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Among the 105 hospitals in Pennsylvania with enough data to calculate an SIR, 12% had an SIR significantly worse than the national SIR of 0.92.

# **SSIs**

### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy



LOWER COMPARED TO NAT'L BASELINE

- Pennsylvania hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Among the 35 hospitals in Pennsylvania with enough data to calculate an SIR, 6% had an SIR significantly worse than the national SIR of 0.86.

### SSI: Colon Surgery

**4** 11%

LOWER COMPARED
TO NAT'L BASELINE\*

- Pennsylvania hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 111 hospitals in Pennsylvania with enough data to calculate an SIR, 5% had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

**₹**5%

LOWER COMPARED
TO NAT'L BASELINE\*

### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 158 hospitals in Pennsylvania with enough data to calculate an SIR, 15% had an SIR significantly worse than the national SIR of 0.90.







# PENNSYLVANIA

### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

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- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Pennsylvania: www.portal.state.pa.us/portal/server.pt/community/ healthcare\_associated\_infections/14234
- Pennsylvania validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header



Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

HAI TYPE	# OF PENNSYLVANIA HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 221+	2013 STATE SIR VS. 2012 State SIR <sup>‡</sup>	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR VS. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	172	<b>☆ 1</b> %	9%	51%	0.49	0.54
CAUTI Nat'l Baseline: 2009	184	13%	4%	<b>☆ 2</b> %	1.02	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	146	₹ 4%	☆ 8%	₹ 7%	0.93	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	160	<b>☆ 13</b> %	₹ 3%	<b>11</b> %	0.89	0.92
MRSA Bacteremia Nat'l Baseline: 2011	168	2012 SIR not available	18%	☆ 8%	1.08	0.92
C. difficile Infections Nat'l Baseline: 2011	167	2012 SIR not available	5%	5%	0.95	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

### WHAT IS PENNSYLVANIA DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

Pennsylvania has a state mandate to publicly report at least one HAI to NHSN.

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Surgical site infections

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# **PUERTO RICO**

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



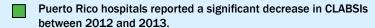
### **CLABSIs**

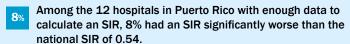
**₽**22%

LOWER COMPARED TO NAT'L BASELINE\*

### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.





### **CAUTIS**

→21% LOWER COMPARED TO NAT'L BASELINE\*

### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

- Puerto Rico hospitals reported a significant decrease in CAUTIS between 2012 and 2013.
- 6% Among the 17 hospitals in Puerto Rico with enough data to calculate an SIR, 6% had an SIR significantly worse than the national SIR of 1.06.

### **MRSA Bacteremia**

### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.92.

# **SSIs**

### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

### SSI: Abdominal Hysterectomy

Puerto Rico hospitals did not report 2013 abdominal hysterectomy data to NHSN.

### SSI: Colon Surgery

- Puerto Rico hospitals did not report 2013 colon surgery data to NHSN.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.

# C. difficile Infections

### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.

Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.90.







**LEGEND** 

# PUERTO RICO

**HEALTHCARE-ASSOCIATED INFECTION (HAI)** 

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts.

Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Puerto Rico: www.salud.gov.pr/Pages/default.aspx
- Puerto Rico validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



<b>\$</b>					
2013 state SIR is					
significantly lower (better)					
than comparison group					
in column header					
^ =					

4 or 4Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

HAI TYPE	# OF PUERTO RICO HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 59 <sup>+</sup>	2013 STATE SIR vs. 2012 State SIR <sup>‡</sup>	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR vs. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	18	24%	45%	22%	0.78	0.54
CAUTI Nat'l Baseline: 2009	18	20%	25%	21%	0.79	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	0					0.86
SSI, Colon Surgery Nat'l Baseline: 2008	0					0.92
MRSA Bacteremia Nat'l Baseline: 2011	3	2012 SIR not available				0.92
C. difficile Infections Nat'l Baseline: 2011	4	2012 SIR not available				0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

### WHAT IS THE STANDARDIZED INFECTION RATIO?

The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower. such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

### WHAT IS PUERTO RICO DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Surgical site infections
- Multidrug-resistant infections (MRSA, C. difficile, CRE, and others)
- Antibiotic stewardship

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# RHODE ISLAND

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



# **CLABSIs**

<del>\$</del>33%

LOWER COMPARED TO NAT'L BASELINE\*

### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

- Rhode Island hospitals reported no significant change in CLABSIs between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.54.

## **CAUTIS**

10 NAT'L BASELINE\*

### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Rhode Island hospitals reported no significant change in CAUTIS between 2012 and 2013.

Among the 10 hospitals in Rhode Island with enough data to calculate an SIR, 10% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia **▼** 10% LOWER COMPARED TO NAT'L BASELINI

### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.92.

# **SSIs**

### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

### SSI: Abdominal Hysterectomy

**₩** 32%

LOWER COMPARED
TO NAT'L BASELINE

- Rhode Island hospitals reported a significant decrease in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.86.

### SSI: Colon Surgery

**1** 32%

HIGHER COMPARED
TO NAT'L BASELINE

- Rhode Island hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

**18**9

TO NAT'L BASELINE\*

### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 11 hospitals in Rhode Island with enough data to calculate an SIR, 45% had an SIR significantly worse than the national SIR of 0.90.







# RHODE ISLAND

### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts.

Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Rhode Island: www.health.ri.gov/diseases/healthcareacquiredinfections/
- Rhode Island validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



HAI TYPE	# OF RHODE ISLAND HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 14 <sup>+</sup>	2013 STATE SIR vs. 2012 State SIR <sup>‡</sup>	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR vs. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	11	<b>☆ 8</b> %	<b>^</b> 25%	33%	0.67	0.54
CAUTI Nat'l Baseline: 2009	10	₹ 6%	20%	<b>1</b> 27%	1.27	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	11	59%	₹ 21%	₹ 32%	0.68	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	11	₹ 4%	43%	<b>☆ 32</b> %	1.32	0.92
MRSA Bacteremia Nat'l Baseline: 2011	11	2012 SIR not available	₹ 1%	₹ 10%	0.91	0.92
C. difficile Infections Nat'l Baseline: 2011	11	2012 SIR not available	31%	18%	1.18	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header



Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

### WHAT IS RHODE ISLAND DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

Rhode Island has a state mandate to publicly report at least one HAI to NHSN.

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Multidrug-resistant infections (MRSA, C. difficile)
- Long-term care facilities

- Hand hygiene
- Antibiotic stewardship
- Healthcare personnel influenza vaccination

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# **SOUTH CAROLINA**

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

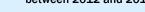
<del>\$</del>43%

LOWER COMPARED
TO NAT'I BASELINE

### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

South Carolina hospitals reported no significant change in CLABSIS between 2012 and 2013.



Among the 41 hospitals in South Carolina with enough data to calculate an SIR, 12% had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

128% HIGHER COMPARED TO NAT'L BASELINE\*

### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

South Carolina hospitals reported a significant decrease in CAUTIS between 2012 and 2013.

Among the 51 hospitals in South Carolina with enough data to calculate an SIR, 16% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia **₹**7%

LOWER COMPARED TO NAT'L BASELINE

### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

9% A

Among the 32 hospitals in South Carolina with enough data to calculate an SIR, 9% had an SIR significantly worse than the national SIR of 0.92.

# SSIs

### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy

**19**%

LOWER COMPARED

- South Carolina hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Among the 15 hospitals in South Carolina with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.86.

SSI: Colon Surgery

**4**%

LOWER COMPARED TO NAT'L BASELINE

- South Carolina hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 28 hospitals in South Carolina with enough data to calculate an SIR, 7% had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

**3**26%

LOWER COMPARED
TO NAT'I BASELINE\*

### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 63 hospitals in South Carolina with enough data to calculate an SIR, 5% had an SIR significantly worse than the national SIR of 0.90.





# SOUTH CAROLINA

**HEALTHCARE-ASSOCIATED INFECTION (HAI)** 

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- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in South Carolina: www.scdhec.gov/hai/
- South Carolina validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header



Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

HAI TYPE	# OF SOUTH CAROLINA HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 81 <sup>+</sup>	2013 STATE SIR vs. 2012 State SIR‡	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR VS. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	65	₹ 7%	<b>☆</b> 7%	43%	0.58	0.54
CAUTI Nat'l Baseline: 2009	64	12%	21%	<b>1</b> 28%	1.28	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	51	₹ 28%	₹ 6%	₹ 19%	0.82	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	57	₹ 10%	<b>☆ 4</b> %	<b>↓</b> 4%	0.96	0.92
MRSA Bacteremia Nat'l Baseline: 2011	66	2012 SIR not available	<b>☆ 2</b> %	√ 7%	0.93	0.92
C. difficile Infections Nat'l Baseline: 2011	64	2012 SIR not available	19%	26%	0.74	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

### WHAT IS SOUTH CAROLINA DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

South Carolina has a state mandate to publicly report at least one HAI to NHSN.

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Multidrug-resistant infections (C. difficile)

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# **SOUTH DAKOTA**

HEALTHCARE ASSOCIATED INFECTIONS PROGRESS

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

<del>\$</del>81%

LOWER COMPARED TO NAT'L BASELINE\*

### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

- South Dakota hospitals reported no significant change in CLABSIs between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.54.

## **CAUTIS**

₹26% LOWER COMPARED TO NAT'I BASELINE

### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

South Dakota hospitals reported no significant change in CAUTIS between 2012 and 2013.

Among the 11 hospitals in South Dakota with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 1.06.

# 

### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.92.

# **SSIs**

### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

### SSI: Abdominal Hysterectomy

**1**60%

HIGHER COMPARED
TO NAT'L BASELINE

- South Dakota hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.86.

### SSI: Colon Surgery

**₹**2%

LOWER COMPARED
TO NAT'L BASELINE

- South Dakota hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

**-**28%

LOWER COMPARED
TO NAT'I BASELINE\*

### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 16 hospitals in South Dakota with enough data to calculate an SIR, 6% had an SIR significantly worse than the national SIR of 0.90.





# SOUTH DAKOTA

#### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts.

Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in South Dakota: doh.sd.gov/diseases/hai/
- South Dakota validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



HAI TYPE	# OF SOUTH DAKOTA HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 64+	2013 STATE SIR vs. 2012 State SIR <sup>‡</sup>	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR vs. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	16	₹ 29%	64%	81%	0.19	0.54
CAUTI Nat'l Baseline: 2009	18	<b>☆ 15</b> %	30%	26%	0.74	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	14	<b>156%</b>	<b>☆ 8</b> 5%	<b>☆ 60</b> %	1.60	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	14	- 9%	☆ 7%	<b>₹</b> 2%	0.98	0.92
MRSA Bacteremia Nat'l Baseline: 2011	23	2012 SIR not available	₹ 13%	<b>₹</b> 20%	0.80	0.92
C. difficile Infections Nat'l Baseline: 2011	23	2012 SIR not available	20%	28%	0.72	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

#### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header





Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower. such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

#### WHAT IS SOUTH DAKOTA DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Multidrug-resistant infections (MRSA, C. difficile, CRE, and others)
- Long-term care facilities
- Antibiotic stewardship
- Healthcare personnel influenza vaccination

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# HEALTHCARE ASSOCIATED INFECTIONS PROGRESS

# **TENNESSEE**

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



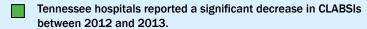
### **CLABSIs**

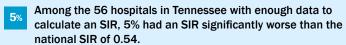
**♦**52% to N

LOWER COMPARED TO NAT'L BASELINE\*

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.





### **CAUTIS**

10 NAT'L BASELINE\*

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Tennessee hospitals reported a significant decrease in CAUTIS between 2012 and 2013.

Among the 69 hospitals in Tennessee with enough data to calculate an SIR, 19% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia 13% HIGHER COMPARED TO NAT'L BASELINE

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Among the 50 hospitals in Tennessee with enough data to calculate an SIR, 12% had an SIR significantly worse than the national SIR of 0.92.

# SSIs

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy

**11**%

LOWER COMPARED
TO NAT'L BASELINE

- Tennessee hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Among the 20 hospitals in Tennessee with enough data to calculate an SIR, 5% had an SIR significantly worse than the national SIR of 0.86.

SSI: Colon Surgery

**₽**9%

LOWER COMPARED TO NAT'L BASELINE

- Tennessee hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 50 hospitals in Tennessee with enough data to calculate an SIR, 10% had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

**+**23%

LOWER COMPARED
TO NAT'I BASELINE\*

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 106 hospitals in Tennessee with enough data to calculate an SIR, 9% had an SIR significantly worse than the national SIR of 0.90.







# **TENNESSEE**

#### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts.

Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Tennessee: health.state.tn.us/ceds/hai/index.htm
- Tennessee validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



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2013 state SIR is significantly lower (better) than comparison group in column header



Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

HAI TYPE	# OF TENNESSEE HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 154+	2013 STATE SIR vs. 2012 State SIR‡	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR VS. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	95	14%	10%	52%	0.49	0.54
CAUTI Nat'l Baseline: 2009	94	₩ 10%	17%	<b>1</b> 24%	1.24	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	87	<b>☆ 2</b> %	☆ 3%	<b>₹</b> 11%	0.89	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	95	<b>☆ 2</b> %	√ 1%	- 9%	0.91	0.92
MRSA Bacteremia Nat'l Baseline: 2011	115	2012 SIR not available	<b>24</b> %	13%	1.13	0.92
C. difficile Infections Nat'l Baseline: 2011	115	2012 SIR not available	16%	23%	0.77	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

#### WHAT IS TENNESSEE DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

Tennessee has a state mandate to publicly report at least one HAI to NHSN. Tennessee is one of 10 state health departments participating in CDC's Emerging Infections Program, which allows for extra surveillance and research of HAIs.

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections

- Surgical site infections
- Multidrug-resistant infections (MRSA, C. difficile, CRE)
- Long-term care facilities
- Antibiotic stewardship

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# HEALTHCARE ASSOCIATED INFECTIONS Healthcare-associated in a healthcare facility.

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



# **CLABSIs**

**PROGRESS** 

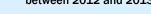
<del>\$</del>49%

LOWER COMPARED TO NAT'L BASELINE\*

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Texas hospitals reported no significant change in CLABSIs between 2012 and 2013.



Among the 204 hospitals in Texas with enough data to calculate an SIR, 8% had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

**1**3%

HIGHER COMPARED TO NAT'L BASELINE

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Texas hospitals reported a significant increase in CAUTIS between 2012 and 2013.

Among the 230 hospitals in Texas with enough data to calculate an SIR, 10% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia $\checkmark$ 13% LOWER COMPARED TO NAT'L BASELINE

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

5% Among the 159 hospitals in Texas with enough data to calculate an SIR, 5% had an SIR significantly worse than the national SIR of 0.92.

# SSIs

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy

LOWER COMPARED TO NAT'L BASELINE\*

- Texas hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Among the 75 hospitals in Texas with enough data to calculate an SIR, 4% had an SIR significantly worse than the national SIR of 0.86.

SSI: Colon Surgery

<del>\$23</del>%

LOWER COMPARED
TO NAT'L BASELINE\*

- Texas hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 166 hospitals in Texas with enough data to calculate an SIR, 5% had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

**4**19%

LOWER COMPARED
TO NAT'I BASELINE\*

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 299 hospitals in Texas with enough data to calculate an SIR, 6% had an SIR significantly worse than the national SIR of 0.90.







# **TEXAS**

#### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts.

Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn

# OF TEVAC

359

- HAIs and prevention activities in Texas: www.texashai.org
- Texas validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



0.90

	HAI TYPE	# OF TEXAS HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 506+	2013 STATE SIR vs. 2012 State SIR <sup>‡</sup>	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR vs. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
er) o	CLABSI Nat'l Baseline: 2008	281	√ 7%	₹ 5%	49%	0.51	0.54
	CAUTI Nat'l Baseline: 2009	289	9%	₹ 3%	☆ 3%	1.03	1.06
ot	SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	290	₹ 3%	18%	₹ 28%	0.73	0.86
-\	SSI, Colon Surgery Nat'l Baseline: 2008	285	☆ 3%	17%	23%	0.78	0.92
in	MRSA Bacteremia Nat'l Baseline: 2011	359	2012 SIR not available	₹ 5%	13%	0.87	0.92

2012 SIR not

available

#### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header



Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

C. difficile Infections

Nat'l Baseline: 2011

#### WHAT IS TEXAS DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

11%

19%

Texas has a state mandate to publicly report at least one HAI to NHSN.

Prevention efforts to reduce specific HAIs:

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Surgical site infections
- Multidrug-resistant infections (C. difficile)



0.81

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# HEALTHCARE ASSOCIATED INFECTIONS PROGRESS Healthca in a healt ratio (SIR are bette

# UTAH

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



# **CLABSIs**

**♥**34%

LOWER COMPARED
TO NAT'L BASELINE

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Utah hospitals reported no significant change in CLABSIs between 2012 and 2013.



Among the 14 hospitals in Utah with enough data to calculate an SIR, 7% had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

♠64% HIGHER COMPARED
TO NAT'L BASELINE

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Utah hospitals reported no significant change in CAUTIS between 2012 and 2013.



Among the 16 hospitals in Utah with enough data to calculate an SIR, 25% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia →40% LOWEI

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.



Among the 10 hospitals in Utah with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.92.

### SSIs

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy



HIGHER COMPARED TO NAT'L BASELINE

- Utah hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.86.

SSI: Colon Surgery

**1**6%

HIGHER COMPARED

- Utah hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 15 hospitals in Utah with enough data to calculate an SIR, 13% had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

**4**16%

LOWER COMPARED
TO NAT'I BASELINE\*

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 29 hospitals in Utah with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.90.





# UTAH

#### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts. Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Utah: health.utah.gov/epi/diseases/HAI/
- Utah validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



#### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header



Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

HAI TYPE	# OF UTAH HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 53+	2013 STATE SIR vs. 2012 State SIR‡	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR vs. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	26	<b>☆ 2</b> %	<b>☆ 23</b> %	₹ 34%	0.66	0.54
CAUTI Nat'l Baseline: 2009	26	₹ 11%	<b>5</b> 6%	<b>1</b> 64%	1.64	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	29	<b>17</b> %	<b>☆ 26</b> %	☆ 8%	1.08	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	30	₹ 23%	26%	<b>16</b> %	1.16	0.92
MRSA Bacteremia Nat'l Baseline: 2011	37	2012 SIR not available	35%	40%	0.60	0.92
C. difficile Infections Nat'l Baseline: 2011	35	2012 SIR not available	₹ 7%	16%	0.84	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

#### WHAT IS UTAH DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

Utah has a state mandate to publicly report at least one HAI to NHSN.

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Surgical site infections

- Multidrug-resistant infections (MRSA, C. difficile, CRE, and others)
- Long-term care facilities
- Hand hygiene
- Antibiotic stewardship
- Healthcare personnel influenza vaccination

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# VERMONT

HEALTHCARE ASSOCIATED INFECTIONS PROGRESS

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



# **CLABSIs**

**₽**75%

LOWER COMPARED TO NAT'L BASELINE\*

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

- Vermont hospitals reported no significant change in CLABSIs between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

□ 14% LOWER COMPARED
 TO NAT'L BASELINE

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

- Vermont hospitals reported no significant change in CAUTIS between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia 573% LOWER COMPARED TO NAT'L BASELINE\*

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.92.

# **SSIs**

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy



LOWER COMPARED
TO NAT'L BASELINE

- Vermont hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.86.

#### SSI: Colon Surgery

121% HIGHER COMPARED TO NAT'L BASELINE\*

- Vermont hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections



LOWER COMPARED TO NAT'L BASELINE

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 11 hospitals in Vermont with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.90.





# **VERMONT**

#### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts.

Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Vermont: healthvermont.gov/hc/hospitalreportcard/index.aspx
- Vermont validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



	НАІ ТҮРЕ	# OF VERMONT HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 16+	2013 STATE SIR vs. 2012 State SIR <sup>‡</sup>	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR VS. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
)	CLABSI Nat'l Baseline: 2008	7	<b>☆ 1</b> %	53%	75%	0.25	0.54
	CAUTI Nat'l Baseline: 2009	5	₹ 29%	₹ 18%	₹ 14%	0.87	1.06
	SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	12	₹ 33%	₹ 24%	₹ 36%	0.65	0.86
	SSI, Colon Surgery Nat'l Baseline: 2008	6	<b>17</b> %	140%	121%	2.21	0.92
	MRSA Bacteremia Nat'l Baseline: 2011	13	2012 SIR not available	71%	73%	0.27	0.92
	C. difficile Infections Nat'l Baseline: 2011	13	2012 SIR not available	36%	42%	0.58	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

#### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header







2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

#### WHAT IS VERMONT DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

Vermont has a state mandate to publicly report at least one HAI to NHSN.

- Multidrug-resistant infections (MRSA, C. difficile, CRE, and others)
- Long-term care facilities
- Antibiotic stewardship

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# **VIRGINIA**

HEALTHCARE ASSOCIATED INFECTIONS PROGRESS

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

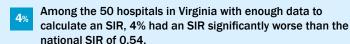
**₽**50%

LOWER COMPARED TO NAT'L BASELINE\*

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Virginia hospitals reported no significant change in CLABSIs between 2012 and 2013.



### **CAUTIS**

**1**5%

TO NAT'L BASELINE

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Virginia hospitals reported a significant increase in CAUTIS between 2012 and 2013.

Among the 62 hospitals in Virginia with enough data to calculate an SIR, 8% had an SIR significantly worse than the national SIR of 1.06.

### MRSA Bacteremia **₹**9%

/ LOW

LOWER COMPARED TO NAT'L BASELINE

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

9% Among the 47 hospitals in Virginia with enough data to calculate an SIR, 9% had an SIR significantly worse than the national SIR of 0.92.

# **SSIs**

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy

**4**209

LOWER COMPARED
TO NAT'I BASELINE

- Virginia hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Among the 19 hospitals in Virginia with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.86.

SSI: Colon Surgery

**10**%

LOWER COMPARED

- Virginia hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 43 hospitals in Virginia with enough data to calculate an SIR, 7% had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

**₹2**%

LOWER COMPARED TO NAT'L BASELINE

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 79 hospitals in Virginia with enough data to calculate an SIR, 16% had an SIR significantly worse than the national SIR of 0.90.







**LEGEND** 

2013 state SIR is
significantly lower (better)
than comparison group
in column header

Or Or Change in 2013 state
SIR compared to group
in column header is not
statistically significant

2013 state SIR is significantly higher (worse) than comparison group in column header

# **VIRGINIA**

#### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts.

Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Virginia: www.vdh.virginia.gov/Epidemiology/Surveillance/HAI/
- Virginia validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



HAI TYPE	# OF VIRGINIA HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 109+	2013 STATE SIR vs. 2012 State SIR <sup>‡</sup>	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR VS. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	81	₹ 13%	₹ 7%	50%	0.50	0.54
CAUTI Nat'l Baseline: 2009	81	17%	₹ 1%	<b>☆</b> 5%	1.05	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	66	₹ 7%	₹ 7%	₹ 20%	0.80	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	75	<b>17%</b>	<b>₽</b> 2%	₹ 10%	0.90	0.92
MRSA Bacteremia Nat'l Baseline: 2011	84	2012 SIR not available	₹ 1%	<b>₽</b> 9%	0.91	0.92
C. difficile Infections Nat'l Baseline: 2011	84	2012 SIR not available	<b>1</b> 8%	₹ 2%	0.98	0.90

<sup>\*</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

# be calculated

2013 state SIR cannot

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

#### WHAT IS VIRGINIA DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

Virginia has a state mandate to publicly report at least one HAI to NHSN.

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Surgical site infections

- Multidrug-resistant infections (C. difficile, CRE)
- Long-term care facilities
- Antibiotic stewardship

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# HEALTHCARE ASSOCIATED INFECTIONS PROGRESS

# WASHINGTON

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

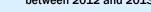
**₹**46% <sup>L</sup>

LOWER COMPARED
TO NAT'L BASELINE

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Washington hospitals reported no significant change in CLABSIs between 2012 and 2013.



Among the 45 hospitals in Washington with enough data to calculate an SIR, 11% had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

**1**%

TO NAT'L BASELINE

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Washington hospitals reported no significant change in CAUTIS between 2012 and 2013.

between 2012 and 20

Among the 47 hospitals in Washington with enough data to calculate an SIR, 11% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia ♥22% LOWER CO

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

6%

Among the 33 hospitals in Washington with enough data to calculate an SIR, 6% had an SIR significantly worse than the national SIR of 0.92.

# SSIs

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy

**19**%

LOWER COMPARED

- Washington hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Among the 11 hospitals in Washington with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.86.

#### SSI: Colon Surgery

**₽**6%

LOWER COMPARED
TO NAT'L BASELINE

- Washington hospitals reported a significant increase in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 38 hospitals in Washington with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

<del>\$\frac{1}{2}\</del>5%

LOWER COMPARED TO NAT'L BASELINE\*

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 58 hospitals in Washington with enough data to calculate an SIR, 16% had an SIR significantly worse than the national SIR of 0.90.





# WASHINGTON

#### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

**DATA** give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts.

Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Washington: www.doh.wa.gov/YouandYourFamily/IllnessandDisease/ HealthcareAssociatedInfections
- Washington validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



#### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header



Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

HAI TYPE	# OF WASHINGTON HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 103+	2013 STATE SIR VS. 2012 State SIR <sup>‡</sup>	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR VS. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	83	₹ 5%	<b>√</b> < <b>1</b> %	46%	0.54	0.54
CAUTI Nat'l Baseline: 2009	69	- 6%	₹ 4%	<b>1</b> %	1.01	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	64	<b>☆ 32</b> %	₹ 6%	₹ 19%	0.81	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	70	<b>1</b> 39%	☆ 3%	- 6%	0.95	0.92
MRSA Bacteremia Nat'l Baseline: 2011	59	2012 SIR not available	₹ 15%	₹ 22%	0.78	0.92
C. difficile Infections Nat'l Baseline: 2011	61	2012 SIR not available	<b>1</b> 5%	5%	0.95	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

#### WHAT IS WASHINGTON DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

Washington has a state mandate to publicly report at least one HAI to NHSN.

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Surgical site infections

- Multidrug-resistant infections (MRSA, C. difficile, CRE, and others)
- Long-term care facilities
- Hand hygiene
- Antibiotic stewardship
- Healthcare personnel influenza vaccination

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# **HEALTHCARE ASSOCIATED INFECTIONS PROGRESS**

# **WEST VIRGINIA**

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

LOWER COMPARED TO NAT'L BASELINE\*

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

West Virginia hospitals reported no significant change in CLABSIs between 2012 and 2013.



Among the 24 hospitals in West Virginia with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

West Virginia hospitals reported no significant change in CAUTIs between 2012 and 2013.



Among the 27 hospitals in West Virginia with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia **₹**7%

TO NAT'L BASELINE

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant Staphylococcus aureus (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.



Among the 18 hospitals in West Virginia with enough data to calculate an SIR, 6% had an SIR significantly worse than the national SIR of 0.92.

### **SSIs**

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a surgical site infection. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

#### SSI: Abdominal Hysterectomy

- West Virginia hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.86.

#### SSI: Colon Surgery

LOWER COMPARED TO NAT'L BASELINE

- West Virginia hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.

Among the 17 hospitals in West Virginia with enough data to calculate an SIR, 12% had an SIR significantly worse than the national SIR of 0.92.

### C. difficile Infections

**HIGHER COMPARED** TO NAT'L BASELINE

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from Clostridium difficile (C. difficile), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 36 hospitals in West Virginia with enough data to calculate an SIR, 14% had an SIR significantly worse than the national SIR of 0.90.





# WEST VIRGINIA

#### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

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Learn how your hospital is performing: www.medicare.gov/hospitalcompare For additional information:

- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in West Virginia: www.dhhr.wv.gov/oeps/disease/HAI/Pages/default.aspx
- West Virginia validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



HAI TYPE	# OF WEST VIRGINIA HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 58+	2013 STATE SIR vs. 2012 State SIR <sup>‡</sup>	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR VS. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	43	₹ 8%	35%	65%	0.35	0.54
CAUTI Nat'l Baseline: 2009	47	₹ 15%	44%	41%	0.59	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	34	<b>☆ 63</b> %	₹ 8%	₹ 21%	0.79	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	36	<b>☆ 1</b> %	☆ 5%	√ 3%	0.97	0.92
MRSA Bacteremia Nat'l Baseline: 2011	39	2012 SIR not available	<b>☆ 1</b> %	<b>₹</b> 7%	0.93	0.92
C. difficile Infections Nat'l Baseline: 2011	41	2012 SIR not available	13%	<b>☆ 2</b> %	1.02	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header







2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

#### WHAT IS WEST VIRGINIA DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

West Virginia has a state mandate to publicly report at least one HAI to NHSN.

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Surgical site infections

- Multidrug-resistant infections (C. difficile)
- Long-term care facilities
- Antibiotic stewardship

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# HEALTHCARE ASSOCIATED INFECTIONS PROGRESS

# **WISCONSIN**

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

**→**52%

LOWER COMPARED TO NAT'L BASELINE\*

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

Wisconsin hospitals reported no significant change in CLABSIs between 2012 and 2013.



Among the 50 hospitals in Wisconsin with enough data to calculate an SIR, 4% had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

₹ 17% LOWER COMPARED TO NAT'L BASELINE

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

Wisconsin hospitals reported no significant change in CAUTIS between 2012 and 2013.

Among the 61 hospitals in Wisconsin with enough data to calculate an SIR, 5% had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia $\checkmark$ 44% LOWER COMPARED TO NAT'L BASELINE

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Among the 29 hospitals in Wisconsin with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.92.

# SSIs

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

SSI: Abdominal Hysterectomy

**38**%

LOWER COMPARED

- Wisconsin hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Among the 12 hospitals in Wisconsin with enough data to calculate an SIR, 8% had an SIR significantly worse than the national SIR of 0.86.

SSI: Colon Surgery

**4** 9%

LOWER COMPARED TO NAT'L BASELINE

- Wisconsin hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Among the 48 hospitals in Wisconsin with enough data to calculate an SIR, 2% had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

**4** 13%

LOWER COMPARED
TO NAT'I BASELINE\*

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 82 hospitals in Wisconsin with enough data to calculate an SIR, 7% had an SIR significantly worse than the national SIR of 0.90.







# WISCONSIN

#### **HEALTHCARE-ASSOCIATED INFECTION (HAI)**

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- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Wisconsin: www.dhs.wisconsin.gov/communicable/HAI/index.htm
- Wisconsin validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



# LEGEND

2013 state SIR is significantly lower (better) than comparison group in column header



Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

HAI TYPE	# OF WISCONSIN HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 144 <sup>+</sup>	2013 STATE SIR vs. 2012 State SIR <sup>‡</sup>	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR vs. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	90	<b>10</b> %	<b>₹</b> 11%	52%	0.48	0.54
CAUTI Nat'l Baseline: 2009	102	☆ 5%	22%	17%	0.83	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	75	₹ 33%	₹ 29%	38%	0.62	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	84	<b>☆ 12</b> %	√ 1%	- 9%	0.91	0.92
MRSA Bacteremia Nat'l Baseline: 2011	88	2012 SIR not available	39%	44%	0.56	0.92
C. difficile Infections Nat'l Baseline: 2011	95	2012 SIR not available	₹ 4%	13%	0.87	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

#### WHAT IS WISCONSIN DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Surgical site infections
- Multidrug-resistant infections (C. difficile, CRE)
- Long-term care facilities

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

# WYOMING

HEALTHCARE ASSOCIATED INFECTIONS PROGRESS

Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.



### **CLABSIs**

**47**%

LOWER COMPARED TO NAT'L BASELINE

#### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

- Wyoming hospitals reported no significant change in CLABSIs between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.54.

### **CAUTIS**

₹47% LOWER COMPARED TO NAT'L BASELINE

#### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

- Wyoming hospitals reported no significant change in CAUTIS between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 1.06.

# MRSA Bacteremia → 30% LOWER COMPAREI

#### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.92.

# **SSIs**

#### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

#### SSI: Abdominal Hysterectomy

**1**28

HIGHER COMPARED TO NAT'L BASELINE

- Wyoming hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.86.

#### SSI: Colon Surgery

**→** 57%

TO NAT'L BASELINE

- Wyoming hospitals reported no significant change in SSIs related to colon surgery between 2012 and 2013.
  - Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some statespecific colon surgery SIRs compared to 2012.
- Not enough data to report how many hospitals had an SIR significantly worse than the national SIR of 0.92.

# C. difficile Infections

**₹**19%

TO NAT'L BASELINE

#### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.



Among the 19 hospitals in Wyoming with enough data to calculate an SIR, 0% had an SIR significantly worse than the national SIR of 0.90.







# WYOMING

**HEALTHCARE-ASSOCIATED INFECTION (HAI)** 

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- 2013 HAI Progress Report: www.cdc.gov/hai/progress-report/
- NHSN: www.cdc.gov/nhsn
- HAIs and prevention activities in Wyoming: www.health.wyo.gov/phsd/epiid/HAIgeneral.html
- Wyoming validation efforts: www.cdc.gov/hai/pdfs/state-progress-landscape.pdf



#### **LEGEND**



2013 state SIR is significantly lower (better) than comparison group in column header



Change in 2013 state SIR compared to group in column header is not statistically significant



2013 state SIR is significantly higher (worse) than comparison group in column header



2013 state SIR cannot be calculated

HAI TYPE	# OF WYOMING HOSPITALS THAT REPORTED DATA TO CDC'S NHSN, 2013 Total Hospitals in State: 31+	2013 STATE SIR vs. 2012 State SIR‡	2013 STATE SIR vs. 2013 Nat'l SIR	2013 STATE SIR VS. Nat'l Baseline <sup>‡</sup>	2013 STATE SIR	2013 NAT'L SIR
CLABSI Nat'l Baseline: 2008	21	<b>^225</b> %	₹ 2%	₹ 47%	0.53	0.54
CAUTI Nat'l Baseline: 2009	24	₹ 41%	50%	47%	0.53	1.06
SSI, Abdominal Hysterectomy Nat'l Baseline: 2008	13	<b>☆ 85</b> %	<b>☆ 49</b> %	<b>☆ 28</b> %	1.28	0.86
SSI, Colon Surgery Nat'l Baseline: 2008	12	€ 66%	₹ 53%	<b>₹</b> 57%	0.43	0.92
MRSA Bacteremia Nat'l Baseline: 2011	14	2012 SIR not available	₹ 23%	√ 30%	0.70	0.92
C. difficile Infections Nat'l Baseline: 2011	27	2012 SIR not available	₹ 10%	₹ 19%	0.81	0.90

<sup>+</sup>Not all hospitals are required to report these infections; for example, some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

#### WHAT IS THE STANDARDIZED INFECTION RATIO?

The **standardized infection ratio** (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

#### WHAT IS WYOMING DOING TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS?

- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections
- Surgical site infections
- Multidrug-resistant infections (MRSA, C. difficile)
- Long-term care facilities

<sup>&</sup>lt;sup>‡</sup>The state's 2012 SIR can be found in the data tables of this report.

<sup>&</sup>lt;sup>‡</sup>Nat'l baseline time period varies by infection type. See first column of this table for specifics.

### **CALL TO ACTION**

he *National and State Healthcare-Associated Infection Progress Report* should be used by health departments, hospital associations, professional societies, healthcare systems and facilities, and quality improvement groups to identify infections that need additional prevention efforts. As identified in this report, most infections are decreasing. Despite this progress, the nation did not reach the 2013 goals established by the HAI Action Plan in 2009, and catheter-associated urinary tract infections (CAUTI) have increased since 2009.

Together with health care and public health partners, CDC is working to bring increased attention to HAI prevention and reverse the CAUTI trend. Early data from 2014 shows that these infections have started to decrease. CDC-recommended infection prevention strategies for several infection types, including CAUTI, have proven effective in a variety of patient care locations. CDC continues to assist public health and clinical partners with implementation of those recommendations. In addition, CDC is working with health departments and quality improvement groups to specifically identify and assist hospitals in need of infection prevention assistance.

State health department efforts to assess the quality and completeness of data reported to NHSN are critical to improving confidence data validity. Ongoing interactions between state and federal public health agencies and their partners in the healthcare sector will be vital to sustaining and extending HAI tracking and prevention.

CDC will continue to measure progress at the state and national levels. Prevention goals are most likely to be met with targeted efforts to cut infection types shown to be lagging behind and to make further progress on the infection types headed in the right direction. Preventing HAIs is possible, but it will take a conscious effort by clinicians, healthcare facilities and systems, public health, quality improvement groups, and the federal government to work together toward protecting patients and saving lives.

#### **METHODS**

The current *National and State Healthcare-Associated Infections Progress Report* presents data reported to the National Healthcare Safety Network (NHSN) for the calendar year 2013. The healthcare-associated infection (HAI) data were reported either by mandate or voluntarily from hospitals in all 50 states, Washington, D.C., and Puerto Rico. Data included in the annual report use standardized NHSN definitions for central line-associated bloodstream infections (CLABSI), catheter-associated urinary tract infections (CAUTI), surgical site infections (SSI), and laboratory identified methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia (bloodstream infections) and *Clostridium difficile* (*C. difficile*) events. To account for delayed reporting, data reported through July 1, 2014, were included.

Data in this report are from acute care and critical access hospitals only. To focus on HAIs among acute care hospital patients, data from long-term acute care facilities and rehabilitation hospitals were excluded (HAI rates for these settings are available on CDC's NHSN website). The CLABSI and CAUTI data are inclusive of data reported from all applicable locations within hospitals. CLABSI and CAUTI data stratified by location type (e.g. critical care units and wards) are available on CDC's HAI Progress Report website (see Data Tables). For this report, wards include step-down units and specialty care areas including hematology/

oncology and bone marrow transplant units. CLABSI data are also reported from neonatal intensive care units (NICUs). The national SSI data included in this report include 10 select procedures that approximate the procedures included in the Centers for Medicare & Medicaid Services (CMS) Surgical Care Improvement Project (SCIP). Only deep incisional and organ/space infections detected during the same admission as the surgical procedure or upon readmission to the same hospital that performed the surgical procedure are included in the reported SIRs; superficial incisional SSIs and those identified on post-discharge surveillance are excluded. The state-specific SSI data included in this report only include data from the two surgical procedures reported to the CMS Hospital Inpatient Quality Reporting (IQR) program – colon surgery and abdominal hysterectomy surgery. Data reported for MRSA bacteremia and *C. difficile* infections are only cases classified as hospital-onset, but community-acquired cases are reported to NHSN and are included in the risk adjustment to produce the SIR.

In addition to the NHSN data used to produce the SIRs in this report, several external data sources were used to provide additional metrics. State health department HAI programs were contacted to assess status and specific requirements of state HAI reporting mandates to NHSN, as well as efforts to validate 2013 HAI data and prevention collaboratives that occurred from January

2013 to December 2014. This report indicates the presence of a state reporting mandate by either the state health department or the hospital association. Validation efforts were classified into two categories for each HAI type: data checked for quality and additional in-depth data review. The following criteria were used to assign credit to states that performed data quality checks: state health department had access to 2013 NHSN data, performed regular data cleaning/quality checks on at least 6 months of 2013 data prior to July 1, 2014, and indicated that hospitals would be contacted if data errors, outliers, or missing information were found. A state received credit for additional in-depth data review if the state performed any type of audit of their hospitals' data prior to July 1, 2014, meaning the state health department reviewed hospital medical records and/or laboratory records to confirm proper case ascertainment and data entry into NHSN. Validation efforts should be taken into account when evaluating an individual state's performance. States that perform more vigorous data validation activities are more likely to find hospital records of infections, and therefore these states may have higher SIRs compared to states that do not perform validation. Not all state health departments have access to NHSN data or have access to NHSN data from every hospital included in this report.

This report followed the same methodology as last year's report to estimate the number of hospitals in each state. The CLABSI

and SSI SIRs continue to use a referent period of January 2006 to December 2008. The CAUTI SIRs use a referent period of calendar year 2009, and the MRSA bacteremia and *C. difficile* infection SIRs use a referent period of January 2010 to December 2011. The **risk adjustment methodology** used to produce the CLABSI, CAUTI, and SSI SIRs are summarized in previous reports and have not changed. State-specific SIRs for hospital-onset MRSA bacteremia and *C. difficile* infections are included for the first time in this report and are risk adjusted for facility bed size, affiliation with a medical school, admission prevalence rate, and laboratory identification method for *C. difficile* infections.

The SIRs published in this report compare the observed number of infections reported to NHSN during 2013 to the predicted number of infections based on infection rates during the referent period, adjusting for key risk factors. Annual progress in preventing CLABSIs, CAUTIs, SSIs, MRSA bacteremia, and *C. difficile* infections was evaluated by comparing 2012 and 2013 SIRs by infection type and location or surgical procedure category. SIRs between the two reporting years were compared for all reporting facilities in each state, and the change in SIRs was assessed for statistical significance using a mid-p exact test. For any state with a referent SIR of 0, the percent change was reflected as greater than 100 percent. A state SIR was only calculated if at least five hospitals in the state reported data for a given location category

or surgical procedure in 2013. State SIRs were compared to the national SIR with the state's data removed; significance was assessed using a mid-p exact test. Facility-specific SIRs were calculated if the facility had at least one predicted HAI for a given location category or surgical procedure. These facility-specific SIRs were used to create a distribution if at least 20 facilities had sufficient data to calculate an SIR. Additionally, the facility-specific SIRs were compared to the national SIR for each location or procedure category; if at least 10 facilities in each category had sufficient data to calculate an SIR, the percent of facilities significantly higher or lower than the national SIR was calculated both nationally and by state.

For complete data tables and a glossary of terms, please visit CDC's HAI Progress Report website at www.cdc.gov/hai/progress-report.

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Terms and topics from CDC's *National and State Healthcare-Associated Infections Progress Report*.

Click on the category to locate specific terms:

Organizational Structure • Infections Reported
Prevention Collaboratives • Calculations

#### **ORGANIZATIONAL STRUCTURE**

Centers for Disease Control and Prevention (CDC): Housed within U.S. Department of Health and Human Services, CDC is charged with protecting the public health of the Nation by providing leadership and direction in the prevention of and control of diseases and other preventable conditions, and responding to public health emergencies. CDC works 24/7 to protect America from health, safety and security threats, both foreign and in the U.S.

Emerging Infections Program (EIP): A national resource utilized for surveillance, prevention, and control of emerging infectious diseases. EIP is a network of 10 state health departments (CA, CO, CT, GA, MD, MN, NM, NY, OR, TN) and their collaborators in local health departments, academic institutions, other federal agencies, and public health and clinical laboratories; infection preventionists; and healthcare providers. The EIP population is roughly representative of the U.S. population on the basis of demographic characteristics, such as age, gender, race, and more.

Hospital Compare: A consumer-oriented website that provides information on how well hospitals provide recommended care to their patients. Hospital Compare was created through the efforts of the Centers for Medicare & Medicaid Services (CMS), in collaboration with organizations representing consumers, hospitals, doctors, employers, accrediting organizations, and other Federal agencies. Hospitals participating in the CMS quality reporting program submit healthcare-associated infection data to CDC's National Healthcare Safety Network (NHSN). NHSN shares these data with CMS for public posting on Hospital Compare, which helps consumers make informed decisions about their health care.

National Healthcare Safety Network (NHSN): CDC's NHSN is the nation's most widely used healthcare-associated (HAI) infection tracking system. NHSN provides facilities, states, regions, and the nation with data needed to identify problem areas, measure progress of prevention efforts, and ultimately eliminate HAIs. In addition, NHSN allows healthcare facilities to track blood safety errors and important healthcare process measures such as healthcare personnel influenza vaccine status and infection control adherence rates.

#### **INFECTIONS REPORTED**

Catheter-associated urinary tract infection (CAUTI): A urinary tract infection (UTI) is an infection involving any part of the urinary system, including urethra, bladder, ureters, and kidney. When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys. *In this report*, the CAUTI data include all infections reported to National Healthcare Safety Network from all applicable locations, including intensive care units and wards.

Central line-associated bloodstream infection (CLABSI): When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood. *In this report*, the CLABSI data include all infections reported to National Healthcare Safety Network from all applicable locations, including intensive care units, neonatal intensive care unit, and wards.

Clostridium difficile (C. difficile, C. diff): When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from C. difficile, bacteria that cause life-threatening diarrhea. Often, C. difficile infections occur in hospitalized or recently hospitalized patients. In this report, the C. difficile data include all

laboratory identified hospital-onset infections reported to National Healthcare Safety Network from all inpatient locations in the facility, with the exception of the neonatal intensive care units and well-baby locations.

**Healthcare-associated infection (HAI):** Infection patients can get while receiving medical treatment in hospitals, outpatient clinics, nursing homes, and other facilities where people receive care.

**Hospital-onset HAI:** For reporting to National Healthcare Safety Network, an infection is considered hospital-onset if the patient begins to show infection symptoms on or after the fourth day of admission.

Laboratory identified (LabID) Event: For reporting to National Healthcare Safety Network, an infection is considered laboratory identified when a patient sample is tested and confirmed by laboratory test only (i.e., clinical evaluation of the patient is not required).

Methicillin-resistant *Staphylococcus aureus* (MRSA): A type of staph bacteria that is resistant to many antibiotics. *In this report*, the MRSA data include all laboratory identified hospital-onset MRSA bacteremia (bloodstream infections) reported to National Healthcare Safety Network from all inpatient locations in the facility.

**Surgical site infection (SSI):** When germs get into an area where surgery is or was performed, patients can get a surgical site infection. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

**Implanted material**: An object or material inserted or grafted into the body, such as prosthetic joints.

#### PREVENTION COLLABORATIVES

Antibiotic resistance (antimicrobial resistance): Antibiotic resistance is the result of bacteria changing in ways that reduce or eliminate the effectiveness of antibiotics. Antimicrobial resistance is result of microorganisms changing in ways that reduce or eliminate the effectiveness of drugs, chemicals, or other agents used to cure or prevent infections. Antibiotic resistance is one type of antimicrobial resistance.

Antibiotic stewardship: Coordinated efforts and programs to improve the use of antimicrobials. For example, facilities with antibiotic stewardship programs have made a commitment to always use antibiotics appropriately and safely – only when they are needed to prevent or treat disease, and to choose the right antibiotics and to administer them in the right way in every case.

#### Carbapenem-resistant Enterobacteriaceae (CRE) infections:

A family of germs that is difficult to treat because they have high levels of resistance to antibiotics. CRE infections are most commonly seen in people with exposure to healthcare settings, like hospitals and long-term care facilities.

**Hand hygiene:** The practice of cleaning hands to prevent the spread of disease-causing germs.

Healthcare personnel influenza vaccination: Influenza, or the flu, is a mild to severe respiratory illness caused by a virus. The contagious illness can easily spread from person to person, including from healthcare workers to patients. Vaccination is the best way to prevent getting and spreading the flu.

Long-term care facilities (LTCF): Nursing homes, skilled nursing facilities, and assisted living facilities (collectively known as long-term care facilities) provide a variety of services, both medical and personal care, to people who are unable to manage independently in the community.

**Multi-drug resistant organism (MDRO) infections:** An infection caused by a germ that are resistant to multiple classes of antimicrobials. In some cases, the germs have become so resistant that no available antibiotics are effective against them.

**Prevention collaboratives:** Prevention projects that consist of multiple hospitals within a state to target an infection as a team, implement prevention strategies, share experiences between facilities, measure progress as a group, and provide feedback to clinicians and staff.

**Ventilator-associated events (VAE):** A ventilator is a machine used to help a patient breathe by giving oxygen through a tube placed in a patient's mouth or nose, or through a hole in the front of the neck. An infection may occur if germs enter a patient through the tube, such as pneumonia or bacterial infections in the blood.

#### **CALCULATIONS**

National baseline: Aggregated data reported to the National Healthcare Safety Network (NHSN) by all facilities during a baseline period that is used to "predict" the number of infections expected to occur in a hospital, state, or in the country. Many federal and state mandates were not enacted during the baseline time periods, and therefore not all states or facilities may have contributed to the baseline (see **State mandate**).

*In this report*, the number of predicted infections is an estimate based on infections reported to NHSN during the following time periods:

2006 to 2008: CLABSI and SSI

2009: CAUTI

2010 to 2011: MRSA bacteremia and C. difficile infections

Infection types presented have different baseline years for comparison. All healthcare-associated infections will undergo rebaseline against 2015 data for successive years.

**Statistical significance**: Term used in the context of a statistical hypothesis test to determine if a finding is unlikely to have occurred by chance alone. A statistically significant test result means it is unlikely that the two groups sampled are different simply by chance alone (suggesting that the two populations sampled are, in fact, different). *In this report*, statistical hypothesis testing is used to compare a calculated Standardized Infection Ratio value (see SIR) to the value of 1.0. A statistical significant result from this test means there is statistical evidence that the calculated SIR is different than what would be predicted from the national data. *In this report*, statistical hypothesis testing is also used to compare two SIRs to each other.

**Standardized Infection Ratio (SIR):** A summary statistic that can be used to track healthcare-associated infection (HAI) prevention progress over time; lower SIRs are better. The SIR compares

the number of infections in a facility or state to the number of infections that were "predicted" to have occurred, based on previous years of reported data (see **National baseline**). The SIR is not calculated when the number of predicted infections is less than 1. *In this report*, the SIRs compare the observed number of infections reported to National Healthcare Safety Network (NHSN) during 2013 to the predicted number of infections based on the referent period, adjusting for key risk factors.

**Risk adjustment**: A process used to level the playing field by adjusting for the differences in risk. When the data are risk-adjusted, it makes it possible to fairly compare hospital performance. *In this report*, the SIRs are adjusted for risk factors that may impact the number of infections reported by a hospital, such as type of patient care location, bed size of the hospital, patient age, and other factors.

**National 2013 SIR:** A summary statistic calculated from all reported HAIs that occurred in the country in 2013. It was calculated as the total number of observed infections in the country, divided by the total number of predicted infections in the country in 2013.

**State 2013 SIR**: A summary statistic calculated from all reported HAIs that occurred in an individual state in 2013.

It was calculated as the total number of observed infections from all hospitals in the state, divided by the total number of predicted infections in the state in 2013.

State mandate (for data reporting): A state legislative or regulatory requirement (enacted by the state's government) requiring hospitals in the state to report healthcare-associated infections to the National Healthcare Safety Network.

Validation: Double-checking, or confirming, healthcare-associated infection (HAI) data reported to the National Healthcare Safety Network (NHSN). This generally involves an assessment to ensure all relevant infections were captured in the system. It may also involve checking the accuracy, or quality, of the submitted data. Currently, state health departments may use different methods to validate the HAI data that hospitals submit to NHSN. For example, some states only validate data from one facility while other states validate more widely. Validation efforts should be taken into account when evaluating an individual state's performance. States that validate data or use advanced tools to detect HAIs may find and report more infections than states that do not validate.

*In this report*, state validation efforts are specified and classified into two categories for each HAI type – data checked for quality and additional in-depth data review.

**Data Quality**: State health departments may assess a hospital's overall reported HAI data for data entry errors, outliers, or missing information. This does not involve reviewing medical records.

*In this report*, the following criteria were used to assign credit to states that performed data quality checks:

- State health department had access to 2013 data from NHSN.
- State health department performed quality checks on at least 6 months of 2013 NHSN data prior to July 1, 2014.
- State health department contacted hospitals when data errors, outliers, or missing information were found.

"Additional In-depth Data Review": State health departments may perform a review, or "audit", of a hospital's medical records to ensure the hospital reported all HAIs to NHSN. The auditing process may identify more HAIs in a hospital than originally reported. As such, states that perform data audits may have a higher SIR when compared to states that do not perform data audits. *In this report*, credit is given to states that performed any type of audit of their hospitals' data prior to July 1, 2014.

# NATIONAL AND STATE HEALTHCARE-ASSOCIATED INFECTIONS PROGRESS REPORT

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