



Healthcare Quality Reporting Program

**HOSPITAL-ACQUIRED INFECTIONS AND PREVENTION ADVISORY SUBCOMMITTEE**

8:00-9:00am, February 28, 2011

Department of Health, Room 401

**Goals/Objectives**

- To discuss HAI work to date and make policy recommendations for pending and upcoming reports

**Members**

G Nicole Alexander, MD	G Linda McDonald, RN	G Janet Robinson, RN, Med, CIC
G Rosa Baier, MPH	G Leonard Mermel, DO, ScM	G Melinda Thomas
G Utpala Bandy, MD	G Pat Mastors	G Dawn Trudeau, RN
G Margaret Cornell, MS, RN	G Robin Neale, MT (ASCP), SM, CIC	G Georgette Uttley, MEd, BSN, RN
G Marlene Fishman, MPH, CIC	G Kathleen O'Connell, RN	G Nancy Vallande, MSM, MT, CIC
G Julie Jefferson, RN, MPH, CIC	G Aurora Pop-Vicas, MD	G Cindy Vanner
G Maureen Marsella, RN, BS	G Lee Ann Quinn, RN, BS, CIC	G Samara Viner-Brown, MS

**Time**

**Topic/Notes**

- |        |   |
|--------|---|
| 8:00am | <p><b>Welcome &amp; Administrative Updates</b><br/> <i>Leonard Mermel, DO, ScM</i></p> <ul style="list-style-type: none"> <li>- Today's objectives</li> <li>- Previous meeting's action items:               <ul style="list-style-type: none"> <li>• Continue to research the logistics of sharing NHSN data with HEALTH (Maureen)</li> <li>• Continue to research other states' use of NHSN for reporting (Maureen)</li> <li>• Share the ICP SNE group's C. difficile definitions with the Subcommittee (Julie)</li> <li>• Share three C. difficile risk factor articles with Rosa (Len)</li> <li>• Conduct a literature search for C. difficile risk factors (Rosa/Rachel)</li> <li>• Review report formats and methodologies from the reporting scan (All)</li> <li>• Create template report formats for MRSA and C. difficile (Rosa/Rachel)</li> <li>• Create a calendar for MRSA and C. difficile reporting (Rosa/Ann)</li> </ul> </li> </ul> |
| 8:05am | <p><b>MRSA and C. difficile Report Formats</b><br/> <i>Rachel Voss, MPH</i><br/> <i>Rosa Baier, MPH</i></p> <ul style="list-style-type: none"> <li>- Discuss of report formats:               <ul style="list-style-type: none"> <li>• Methodology</li> <li>• Display</li> <li>• Explanatory text</li> </ul> </li> </ul>  |

8:55am **Action Items & Next Steps**

*Rosa Baier, MPH*

- Today's action items
- Next meeting: 4/25/11

**August 2010**

**Guidance Document for Central Line-associated MRSA Bloodstream Infection**

1. Definition

Refer to the NHSN Patient Safety Component Protocol, Device-associated Module for Central line-associated Bloodstream Infection (CLABSI) Event. The definition is found at: [http://www.cdc.gov/nhsn/PDFs/pscManual/4PSC\\_CLABScurrent.pdf](http://www.cdc.gov/nhsn/PDFs/pscManual/4PSC_CLABScurrent.pdf)

2. Calculations

a. Numerator - the number of patients in the **ICU** who acquire a hospital associated central line-associated MRSA bloodstream infection using definition above.

b. Denominator - the number of device days in **ICU** by month. The device days are collected daily, at the same time each day.

c. Rate calculation – Numerator divided by denominator, multiplied by 1000.

3. Definition of MRSA:

**MRSA**: Includes **S. aureus** cultured from any specimen that tests oxacillin-resistant by standard susceptibility testing methods, or by a positive result from molecular testing for *mecA* and *PBP2a*; these methods may also include positive results of specimens tested by any other FDA approved PCR test for MRSA

The forms for data collection can be found at: <http://www.cdc.gov/nhsn/PatientSafety.html>

This is the agreed upon definition for reporting C. difficile infections to the State of Rhode Island. The infections may or may not be entered into NHSN-TBD.

CDI surveillance definitions for GI:GE or GI:GIT in NSHN

**Hospital Acquired:**

**(Requires NHSN Reporting)**

- Onset of symptoms > 48 hours after admission. Symptoms must be “**Not Present on Admission.**”

NOTE: For symptomatic patients, check medications to see if it is caused by laxatives or tube feedings and could therefore be non-infectious. (Do not report as CDI if non-infectious cause of sx.)



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**METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS (MRSA) INFECTIONS**

Care Outcomes Report, January-March 2011

MRSA is a kind of bacteria that most commonly causes skin infections. MRSA infections that patients get while in hospital intensive care units are reported on the [Department of Health's \(HEALTH's\) Web site](#). Diamonds are assigned based on how different each hospital's performance is from the other hospitals in the state:

- Better than expected
- About the same as expected
- Worse than expected

You can learn more about the MRSA report by reading the Methods document. The Methods document includes the data source, how hospital diamonds are calculated, and why this information is important. With questions about a hospital's performance, please contact the hospital directly by clicking on each hospital's name.

MRSA infections may be preventable with proper care, but some hospitals may have higher rates even if they provide good care. There may be more MRSA infections in hospitals that care for more patients who have had antibiotics recently, need certain kinds of medical equipment (like [catheters](#)), come from nursing homes, or who have diabetes mellitus. Patients who are often in the hospital are also at greater risk.

The diamonds show you how hospitals compare to one another

**Table.** MRSA Performance in Intensive Care Units, by Hospital

Hospital ( <i>Alphabetical</i> )	Diamonds*
<a href="#">Kent County Memorial Hospital</a>	
<a href="#">Landmark Medical Center</a>	
<a href="#">Memorial Hospital</a>	
<a href="#">Miriam Hospital</a>	
<a href="#">Newport Hospital</a>	
<a href="#">Our Lady of Fatima Hospital</a>	
<a href="#">Rhode Island Hospital</a>	
<a href="#">Roger Williams Medical Center</a>	
<a href="#">South County Hospital</a>	
<a href="#">Westerly Hospital</a>	
<a href="#">Women &amp; Infants' Hospital</a>	

\* Statistical methods are described in the Methods (separate document).



Healthcare Quality Reporting Program

**METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS (MRSA) INFECTIONS**

Methods

MRSA is a kind of bacteria that most commonly causes skin infections. MRSA infections may be preventable with proper care. MRSA infections that patients get while in the hospital are reported on the [Department of Health's \(HEALTH's\) Web site](#). The information on this page provides additional details about the results presented, including the data source, how hospital diamonds are calculated, and why this information is important.

**Measure Information** ([adapted from the Centers for Disease Control and Prevention](#))

Topic	Why is this information important?
Methicillin-resistant Staphylococcus aureus (MRSA)	MRSA bacteria most commonly cause skin infections. MRSA infections are reasonably preventable with proper care, especially good hygiene. MRSA is resistant to (cannot be treated with) certain antibiotics.

**Definitions**

Word or Phrase	What does this mean?
Primary MRSA infection	Not related to another infection, such as a urinary tract infection, pneumonia, or wound infection. Any <i>S.aureus</i> infection that tests oxacillin-resistant.
Intensive Care Unit (ICU)	A hospital unit that cares for critically-ill patients.
Rate	A score that reflects new (hospital-acquired) infections over a period of time. For the MRSA infection rates, this timeframe is three months. <i>Lower</i> rates are better for MRSA.

**Data Source**

Rhode Island hospitals collect information about patients who get MRSA while in intensive care and share it with the Department of Health for reporting. Hospital rates are based on primary MRSA infections that occur in each hospital's intensive care units (ICUs). For MRSA rates, *lower* numbers are better.

**Measure Calculation**

The information in this section is for people who want details about the data calculations. For each hospital, two numbers are calculated: (1) **MRSA incidence**, and (2) a **Standardized Incidence Ratio** (SIR). Incidence is needed to calculate each hospital's SIR, and the diamonds presented in the public report are based on the SIR.

1. **MRSA incidence** is calculated as follows:

$$Rate = \frac{(number\ of\ MRSA\ infections)}{(number\ of\ inpatient\ ICU\ days)}$$

The number of patients who develop a MRSA infection is the **numerator**. The number of inpatient ICU days (the number of days when patients could have developed an infection) is the **denominator**. The **incidence rate** is the numerator divided by the denominator multiplied by 1,000. Each hospital's rate is compared to the rates of other hospitals across the state using SIRs.

2. Incidence rates are used to calculate **SIRs**, which are:

$$SIR = \frac{(observed\ cases)}{(expected\ cases)}$$

The **observed cases** are the actual number of MRSA infections (incidence rate numerator) and the **expected cases** are the number we expect to see if we applied the average state MRSA incidence rate to each hospital's patient population (the incidence rate's denominator). *Lower* scores are better. An SIR score less than 1.0 means the incidence is better than expected.

For hospitals with SIRs calculated, each hospital's SIR is included in the public report and helps to determine its diamond category (see "Diamond Categories").

### Diamond Categories

The diamond categories help you understand how each hospital's incidence compares to its expected incidence (or "expected cases," determined based on the average performance of the state's other acute-care hospitals):

- Worse than expected
- About the same as expected
- Better than expected

These categories are determined mathematically to ensure that the differences are meaningful. In detailed terms, this means that hospitals with either one diamond (—) or three diamonds (—) have MRSA incidence rates that are "statistically significantly different" from their expected rates.

### Diamond Calculation

The information in this section is for people who want statistical details about the diamond calculations. The diamond categories are determined based on hospitals' SIRs (see "Measure Calculation"). An SIR less than 1.0 means the hospital's rate is lower (better) than expected; an SIR greater than 1.0 is higher (worse) than expected. The margin of error, or "90% confidence interval," determines whether each SIR is meaningfully different from 1.0. Diamonds are assigned as follows:

- One diamond (—): If the SIR falls above 1.0 (is worse than expected) AND its margin of error, or "90% confidence interval," does not include 1.0, then the hospital has one diamond.
- Two diamonds (—): If the 90% confidence interval for the score includes the national average, then the hospital's score is not accurate enough to categorize it as better or worse than other hospitals. The hospital has two diamonds.
- Three diamonds (—): If the SIR falls below 1.0 (is better than expected) AND its margin of error, or "90% confidence interval," does not include 1.0, then the hospital has three diamonds. **Note:** The exception is when the hospital does not have any infections (where zero is the best performance). When this occurs, a hospital is automatically given three diamonds.

**Data Table, January-March 2011**

The data table below provides additional details which are not presented in the Data Report, including:

- Number of MRSA infections
- Number of inpatient days
- MRSA rate per 1,000 inpatient days
- SIR, based on the state average
- 90% CI range

Hospital (Alphabetical)	Number of MRSA Infections	Number of Inpatient Days	MRSA Rate per 1,000 Inpatient Days	SIR	90% CI		Diamonds
					Lower Limit	Upper Limit	
<a href="#">Kent County Memorial Hospital</a>							
<a href="#">Landmark Medical Center</a>							
<a href="#">Memorial Hospital</a>							
<a href="#">Miriam Hospital</a>							
<a href="#">Newport Hospital</a>							
<a href="#">Our Lady of Fatima Hospital</a>							
<a href="#">Rhode Island Hospital</a>							
<a href="#">Roger Williams Medical Center</a>							
<a href="#">South County Hospital</a>							
<a href="#">Westerly Hospital</a>							
<a href="#">Women &amp; Infants' Hospital</a>							

- Confidence intervals are not applicable when the SIR equals 0.000.



Healthcare Quality Reporting Program  
**CLOSTRIDIUM DIFFICILE INFECTIONS**  
 Care Outcomes Report, July-September 2011

*Clostridium difficile* is a kind of bacteria that can cause diarrhea and is commonly called *C. difficile*. *C. difficile* infections that patients get while in the hospital are reported on the [Department of Health's \(HEALTH's\) Web site](#). Diamonds are assigned based on how different each hospital's performance is from the other hospitals in the state:

- Better than expected
- About the same as expected
- Worse than expected

You can learn more about the *C. difficile* report by reading the Methods document. The Methods document includes the including the data source, how hospital diamonds are calculated, and why this information is important. With questions about a hospital's performance, please contact the hospital directly by clicking on each hospital's name.

*C. difficile* infections are reasonably preventable with proper care, but some hospitals may have higher rates even if they provide good care. There may be more *C. difficile* infections in hospitals that care for more patients who have had antibiotics recently, are older, or have problems or surgeries related to their stomach and digestive tract. Patients with conditions that limit their body's natural defenses ([immune system](#)) or who are often in the hospital are also at greater risk.

The diamonds show you how hospitals compare to one another

**Table.** *C. difficile* Rates, by Hospital

Hospital (Alphabetical)	Diamonds*
<a href="#">Kent County Memorial Hospital</a>	
<a href="#">Landmark Medical Center</a>	
<a href="#">Memorial Hospital</a>	
<a href="#">Miriam Hospital</a>	
<a href="#">Newport Hospital</a>	
<a href="#">Our Lady of Fatima Hospital</a>	
<a href="#">Rhode Island Hospital</a>	
<a href="#">Roger Williams Medical Center</a>	
<a href="#">South County Hospital</a>	
<a href="#">Westerly Hospital</a>	
<a href="#">Women &amp; Infants' Hospital</a>	

\* Statistical methods are described in the Methods (separate document).



Healthcare Quality Reporting Program  
**CLOSTRIDIUM DIFFICILE INFECTIONS**

Methods

*Clostridium difficile* is a kind of bacteria that can cause diarrhea and is commonly called *C. difficile*. *C. difficile* infections may be preventable with proper care. *C. difficile* infections that patients get while in the hospital are reported on the [Department of Health's \(HEALTH's\) Web site](#). The information on this page provides additional details about the results presented, including the measures' data source, how measures are calculated, and why the information is important.

**Measure Information** ([adapted from the Centers for Disease Control and Prevention](#))

Topic	Why is this information important?
<i>Clostridium difficile</i> ( <i>C. difficile</i> )	<i>C. difficile</i> is a kind of bacteria that can cause diarrhea. <i>C. difficile</i> infections are reasonably preventable with proper care, especially good hygiene and avoiding too many antibiotics. Antibiotics kill the "good" bacteria that naturally live in a healthy digestive system.

**Definitions**

Word or Phrase	What does this mean?
Rate	A score that reflects new (hospital-acquired) infections over a period of time. For the <i>C. difficile</i> infection rates, this timeframe is three months. Lower rates are better for <i>C. diff.</i>

**Data Source**

Rhode Island hospitals collect information about patients who get *C. difficile* in the hospital and share it with the Department of Health for reporting. Hospital rates are based on *C. difficile* infections that occur anywhere in the hospital. For *C. difficile* rates, lower numbers are better.

**Measure Calculation**

The information in this section is for people who want details about the data calculations. For each hospital, two numbers are calculated: (1) ***C. difficile* incidence**, and (2) a **Standardized Incidence Ratio (SIR)**. Incidence is needed to calculate each hospital's SIR, and the diamonds presented in the public report are based on the SIR.

1. ***C. difficile* incidence** is calculated as follows:

$$\text{Rate} = \frac{(\text{number of } C. \text{ difficile infections})}{(\text{number of inpatient days})}$$

The number of patients who develop a *C. difficile* infection is the **numerator**. The number of inpatient days (the number of days when patients could have developed an infection) is the **denominator**. The **incidence rate** is the numerator divided by the denominator multiplied by 1,000. Each hospital's rate is compared to the rates of other hospitals across the state using SIRs.

2. Incidence rates are used to calculate **SIRs**, which are:

$$SIR = \frac{(observed\ cases)}{(expected\ cases)}$$

The **observed cases** are the actual number of *C. difficile* infections (incidence rate numerator) and the **expected cases** are the number we expect to see if we applied the average state *C. difficile* incidence rate to each hospital's patient population (the incidence rate's denominator). *Lower* scores are better. An SIR score less than 1.0 means the incidence is better than expected.

For hospitals with SIRs calculated, each hospital's SIR is included in the public report and helps to determine its diamond category (see "Diamond Categories").

### Diamond Categories

The diamond categories help you understand how each hospital's incidence compares to its expected incidence (or "expected cases," determined based on the average performance of the state's other acute-care hospitals):

- Worse than expected
- About the same as expected
- Better than expected

These categories are determined mathematically to ensure that the differences are meaningful. In detailed terms, this means that hospitals with either one diamond (—) or three diamonds (—) have *C. difficile* incidence rates that are "statistically significantly different" from their expected rates.

### Diamond Calculation

The information in this section is for people who want statistical details about the diamond calculations. The diamond categories are determined based on hospitals' SIRs (see "Measure Calculation"). An SIR less than 1.0 means the hospital's rate is lower (better) than expected; an SIR greater than 1.0 is higher (worse) than expected. The margin of error, or "90% confidence interval," determines whether each SIR is meaningfully different from 1.0. Diamonds are assigned as follows:

- One diamond (—): If the SIR falls above 1.0 (is worse than expected) AND its margin of error, or "90% confidence interval," does not include 1.0, then the hospital has one diamond.
- Two diamonds (—): If the 90% confidence interval for the score includes the national average, then the hospital's score is not accurate enough to categorize it as better or worse than other hospitals. The hospital has two diamonds.
- Three diamonds (—): If the SIR falls below 1.0 (is better than expected) AND its margin of error, or "90% confidence interval," does not include 1.0, then the hospital has three diamonds. **Note:** The exception is when the hospital does not have any infections (where zero is the best performance). When this occurs, a hospital is automatically given three diamonds.

**Data Table, July-September 2011**

The data table below provides additional details which are not presented in the Data Report, including:

- Number of *C. difficile* infections
- Number of inpatient ICU days
- *C. difficile* rate per 1,000 ICU days
- SIR, based on the state average
- 90% CI range

Hospital (Alphabetical)	Number of <i>C. difficile</i> Infections	Number of Inpatient ICU Days	<i>C. difficile</i> Rate per 1,000 Inpatient ICU Days	SIR	90% CI		Diamonds
					Lower Limit	Upper Limit	
<a href="#">Kent County Memorial Hospital</a>							
<a href="#">Landmark Medical Center</a>							
<a href="#">Memorial Hospital</a>							
<a href="#">Miriam Hospital</a>							
<a href="#">Newport Hospital</a>							
<a href="#">Our Lady of Fatima Hospital</a>							
<a href="#">Rhode Island Hospital</a>							
<a href="#">Roger Williams Medical Center</a>							
<a href="#">South County Hospital</a>							
<a href="#">Westerly Hospital</a>							
<a href="#">Women &amp; Infants' Hospital</a>							

- Confidence intervals are not applicable when the SIR equals 0.000.



Healthcare Quality Reporting Program

**MRSA and C. DIFFICILE PUBLIC REPORTING FORMAT SCAN**

Last Updated 1/25/2011

**Summary:**

- Of the roughly **24** states that mandate public reporting, there are **12** states with an official report or publication on, **8** states with a plan to report, and **4** states with no plan or indication of future efforts to report
- Of the **12** states that are reporting, **6** are reporting MRSA, **4** have statistical briefs or information sheets on MRSA which may or may not include measured hospital data on the infection rate, **1** is reporting both MRSA and *C. difficile*, and **1** is reporting CLABSI rates with no indication of specifically reporting MRSA or *C. difficile*

**Table 1:** MRSA and C. difficile reporting measures and data display, by state

State	Measure	Data Display (e.g., aggregate or facility-level)	Link
*Alabama	Not readily accessible	Not readily accessible	HAI Reporting Rules (Alabama DPH HAI Reporting & Prevention Training Plan, p.13): <a href="http://www.medicare.state.al.us/documents/News/Quality/HAI_Rules_Update_Stevens_7-15-10.pdf">http://www.medicare.state.al.us/documents/News/Quality/HAI_Rules_Update_Stevens_7-15-10.pdf</a>
Arkansas	Not readily accessible		
California	<ul style="list-style-type: none"> <li>• Incidence rate of healthcare-associated MRSA bloodstream &amp; <i>C. diff</i> infections, including information on number of inpatient days</li> </ul>	<ul style="list-style-type: none"> <li>• Quarterly report</li> <li>• Reports rates at facility-level (by hospital)</li> </ul>	Hospital Instructions for Reporting (Table of Reporting Requirements, p.6; MRSA, p.4; <i>C. Diff</i> , p.3): <a href="http://www.cdph.ca.gov/services/boards/Documents/AFL%2010-07%201058%20Reporting.pdf">http://www.cdph.ca.gov/services/boards/Documents/AFL%2010-07%201058%20Reporting.pdf</a>

State	Measure	Data Display (e.g., aggregate or facility-level)	Link
<b>*Colorado</b>	<ul style="list-style-type: none"> <li>CLABSI rates are per 1,000 central line-days</li> </ul>	<ul style="list-style-type: none"> <li>Reports rate by facility-level (not aggregate)</li> <li>Facility's infection rate is compared to national rate for that procedure or device and through statistical analysis is determined to be better, worse, or the same</li> <li>Information on infection rates grouped by procedure rather than infection type</li> </ul>	Annual HAI Report (CLABSI Infection Rates Acquired in 5 Adult Critical Care Units, p.42). <a href="http://www.cdphe.state.co.us/hf/PatientSafety/2010%20Annual%20HAI%20Report%20Final%201.19.10.pdf">http://www.cdphe.state.co.us/hf/PatientSafety/2010%20Annual%20HAI%20Report%20Final%201.19.10.pdf</a>
<b>Connecticut</b>	<ul style="list-style-type: none"> <li>Incidence of MRSA cases both reported and not reported by hospitals (over 3 month period: 10-12/08)</li> </ul>	<ul style="list-style-type: none"> <li>Reports an aggregate rate</li> <li>Validation study for recommended measures (i.e., MRSA) to observe over- and under-reporting of infections and ensure accuracy of self-reporting; essential to validate credibility of measurement systems before public reporting</li> <li>Measures of reported and non-reported MRSA cases compared with DPH count</li> </ul>	Status Report on HAI Initiative (MRSA; p.11, 17): <a href="http://www.ct.gov/dph/lib/dph/hai/pdf/annual_hai_report_2009.pdf">http://www.ct.gov/dph/lib/dph/hai/pdf/annual_hai_report_2009.pdf</a>
<b>*Delaware</b>	<ul style="list-style-type: none"> <li>Number of MRSA-associated discharges each year</li> <li>Frequency (%) of common primary diagnoses and procedures for discharge</li> </ul>	<ul style="list-style-type: none"> <li>Reports aggregate rates for number of discharges; data trended from 1994-2005 (bar graph)</li> <li>MRSA-associated discharges also stratified by inpatient characteristics</li> </ul>	Statistical Brief (no recent reports of MRSA but brief displayed on website from 2007): <a href="http://www.dhss.delaware.gov/dhss/dph/hp/files/mrsa.pdf">http://www.dhss.delaware.gov/dhss/dph/hp/files/mrsa.pdf</a>
<b>Florida</b>	<ul style="list-style-type: none"> <li>MRSA: prevalence rate per 1,000 population</li> </ul>	<ul style="list-style-type: none"> <li>Reports an aggregate rate</li> <li>Infection rates of hospitalization stratified by variables like gender, age group, county, presence of admission indicators (tables, pie charts, color-coded state map)</li> </ul>	Statistical Brief: <a href="https://floridahealthfinderstore.blob.core.windows.net/documents/researchers/documents/MRSAbrieffinal.pdf">https://floridahealthfinderstore.blob.core.windows.net/documents/researchers/documents/MRSAbrieffinal.pdf</a>

State	Measure	Data Display (e.g., aggregate or facility-level)	Link
Illinois	Rate of infections (MRSA & <i>C. diff</i> ): <ul style="list-style-type: none"> <li>• Numerator: number of cases in a given year</li> <li>• Denominator: total number of discharges for that year (usually per 1,000)</li> </ul>	<ul style="list-style-type: none"> <li>• Reports aggregate rates</li> </ul> <p>Both reports include:</p> <ul style="list-style-type: none"> <li>• Discharge trends from 1999-2009 (table, line graph, pie charts), and</li> <li>• number of hospitalizations stratified by age, sex.</li> </ul>	<p>Summary Report (MRSA; found as direct link from HAI and state reporting pages):  <a href="http://www.healthcarereportcard.illinois.gov/files/pdf/MRSAsummary.pdf">http://www.healthcarereportcard.illinois.gov/files/pdf/MRSAsummary.pdf</a>.</p> <p>Summary Report (<i>C. diff</i>; found as direct link from HAI and state reporting pages):  <a href="http://www.healthcarereportcard.illinois.gov/files/pdf/Cdiffsum.pdf">http://www.healthcarereportcard.illinois.gov/files/pdf/Cdiffsum.pdf</a>.</p>
*Indiana	<ul style="list-style-type: none"> <li>• Prevalence of infected and colonized cases of <i>C. diff</i></li> </ul>	<ul style="list-style-type: none"> <li>• Reports an aggregate rate (bar and line graphs, pie charts)</li> <li>• Not a public report; <i>C. diff</i> data presented as groundwork for state-wide surveillance, detection, reporting, and response plan (p.25)</li> </ul>	<p>HAI Prevention Plan (MRSA surveillance plan, p.33; <i>C. diff.</i> national data, p.4-5; <i>C. diff</i> prevention plan, p.50)  <a href="http://www.in.gov/isdh/files/Indiana_Plan.pdf">http://www.in.gov/isdh/files/Indiana_Plan.pdf</a></p>
Iowa	<ul style="list-style-type: none"> <li>• (1) MRSA Bloodstream: incidence rate of infection per 10,000 patient days</li> <li>• (2) MRSA Surgical Site: Incidence rate of infection (%)</li> </ul>	<ul style="list-style-type: none"> <li>• Reports rate by facility-level (not aggregate)</li> <li>• Self-reported measures of the rate that (1) acute care, swing bed, skilled nursing facility or (2) CABG, colon, hip, and hysterectomy patients experienced MRSA infections</li> </ul>	<p>MRSA bloodstream infections report:  <a href="http://www.ihconline.org/userdocs/reports/HAI_8_MRSA_BSI.pdf">http://www.ihconline.org/userdocs/reports/HAI_8_MRSA_BSI.pdf</a></p> <p>MRSA surgical site infections report:  <a href="http://www.ihconline.org/userdocs/reports/HAI_7_MRSA_SSI.pdf">http://www.ihconline.org/userdocs/reports/HAI_7_MRSA_SSI.pdf</a>.</p>
Maine	Not readily accessible		
Maryland	<ul style="list-style-type: none"> <li>• Patients admitted to ICU who are screened for MRSA (%)</li> </ul>	<ul style="list-style-type: none"> <li>• Reports rate by facility-level (not aggregate) and compares to state average (bar graph)</li> <li>• Not an official report</li> </ul>	<p>Rates of MRSA surveillance testing:  <a href="http://mhcc.maryland.gov/consumerinfo/hospitalguide/hospital_guide/reports/healthcare_associated_infections/index.asp">http://mhcc.maryland.gov/consumerinfo/hospitalguide/hospital_guide/reports/healthcare_associated_infections/index.asp</a></p>
Massachusetts	<ul style="list-style-type: none"> <li>• MRSA monitored by point prevalence surveys</li> </ul>	Not readily accessible	<p>MRSA (p.9, 20, 23) monitored via point prevalence surveys:  <a href="http://www.mass.gov/Eeohhs2/docs/dph/quality/healthcare/hai_report.pdf">http://www.mass.gov/Eeohhs2/docs/dph/quality/healthcare/hai_report.pdf</a></p>
Missouri	Not readily accessible		

State	Measure	Data Display (e.g., aggregate or facility-level)	Link
<b>New Jersey</b>	<ul style="list-style-type: none"> <li>Number of MRSA bloodstream infections per 1,000 patient days</li> <li>Percentage of eligible patients screened for MRSA upon admission to a hospital unit where AST for MRSA is being done (i.e., adherence to Admission AST).</li> </ul>	<ul style="list-style-type: none"> <li>Goal: monthly reports</li> </ul>	Guidance, Requirements, Training and Data Collection Instructions for MRSA Reporting: <a href="http://www.state.nj.us/health/cd/mrsa/prof.shtml#hcf">http://www.state.nj.us/health/cd/mrsa/prof.shtml#hcf</a>
<b>New Mexico</b>	Not readily accessible	Not readily accessible	MRSA Collaborative (surveillance): <a href="http://www.nmmra.org/nmmrsa/index.php">http://www.nmmra.org/nmmrsa/index.php</a>
<b>New York</b>	Not readily accessible	Not readily accessible	MRSA Information (includes prevention and control, press releases, stat sheet, no public report and no present efforts or plans going forward): <a href="http://www.nyhealth.gov/diseases/communicable/staphylococcus_aureus/methicillin_resistant/">http://www.nyhealth.gov/diseases/communicable/staphylococcus_aureus/methicillin_resistant/</a>
<b>Ohio</b>	Rate of infections (MRSA & <i>C. diff</i> ): <ul style="list-style-type: none"> <li><i>C. diff</i> Numerator: positive result for a laboratory assay for <i>C. difficile</i> toxin A and/or B, Or A toxin-producing <i>C. difficile</i> organism, detected in the stool sample by culture or other laboratory means</li> <li>MRSA Numerator (subset of <i>S. aureus</i>): number of positive blood cultures isolates for <i>S. aureus</i>:               <ol style="list-style-type: none"> <li>MRSA</li> <li>MSA</li> </ol> </li> <li>Denominator: all quarterly inpatient days</li> </ul>	<ul style="list-style-type: none"> <li>Reports an aggregate rate</li> </ul>	Measure Explanations (MRSA, p.21; <i>C. diff</i> , p.22): <a href="http://ohiohospitalcompare.ohio.gov/documents/Hospital%20Performance%20Measures%20Explanations.pdf">http://ohiohospitalcompare.ohio.gov/documents/Hospital%20Performance%20Measures%20Explanations.pdf</a> Hospital Performance Measures Instruction Manual ( <i>C.diff</i> , p.26): <a href="http://www.odh.ohio.gov/ASSETS/A38F204B5CE24FBA9713DA5D3067141/Hospital_Performance_Measure_Reporting_Instruction_Manual.pdf">http://www.odh.ohio.gov/ASSETS/A38F204B5CE24FBA9713DA5D3067141/Hospital_Performance_Measure_Reporting_Instruction_Manual.pdf</a>
<b>Oregon</b>	<ul style="list-style-type: none"> <li>MRSA: number of infections per 100,000 people</li> <li><i>C. diff</i>: case rate per patient days</li> </ul>	Not readily accessible	HAI Reporting Program Plan (MRSA measure, p.7; surveillance action plan, p.26): <a href="http://www.oregon.gov/OHPPR/docs/HCAIAC/Materials/2010_Materials/Meeting_Materials_011310.pdf">http://www.oregon.gov/OHPPR/docs/HCAIAC/Materials/2010_Materials/Meeting_Materials_011310.pdf</a>

State	Measure	Data Display (e.g., aggregate or facility-level)	Link
<b>*Pennsylvania</b>	<ul style="list-style-type: none"> <li>• <i>C. diff</i>: rate per 1,000 cases</li> </ul>	<ul style="list-style-type: none"> <li>• <i>C. diff</i> currently combined with other gastrointestinal infections</li> <li>• Report not recent (2007), no indication of progress since</li> </ul>	<p>HAI Technical Report (<i>C. diff</i>, p.5, 10):  <a href="http://www.phc4.org/reports/hai/07/docs/hai2007tecnotes.pdf">http://www.phc4.org/reports/hai/07/docs/hai2007tecnotes.pdf</a></p>
<b>South Carolina</b>	<ul style="list-style-type: none"> <li>• Percentage of positive cultures with MRSA isolated in surgical site infections</li> </ul>	Not readily accessible	<p>SSI Summary Report:  <a href="http://www.scdhec.gov/health/disease/hai/docs/Table%2010.%20SSI%20Table%2010%20-%20Cultures%20MRSA.pdf">http://www.scdhec.gov/health/disease/hai/docs/Table%2010.%20SSI%20Table%2010%20-%20Cultures%20MRSA.pdf</a>  MRSA State Summary Report (p.21; priority prevention surveillance plan, p.261):  <a href="http://www.scdhec.gov/health/disease/hai/docs/2010%20HIDA%20Annual%20Report.pdf">http://www.scdhec.gov/health/disease/hai/docs/2010%20HIDA%20Annual%20Report.pdf</a></p>
<b>Tennessee</b>	<ul style="list-style-type: none"> <li>• Incidence rates of invasive MRSA per 100,000</li> </ul>	<ul style="list-style-type: none"> <li>• Reports an aggregate rate; stratified by Surveillance Site and Epidemiologic Classification</li> </ul>	<p>Progress Reports and Recommendations for MRSA:  <a href="http://health.state.tn.us/Downloads/MRSAreport307.pdf">http://health.state.tn.us/Downloads/MRSAreport307.pdf</a>  HAI Report 2010 (MRSA, p. 3, 16, 18, 33, 77):  <a href="http://health.state.tn.us/Downloads/TROHAI08022010.pdf">http://health.state.tn.us/Downloads/TROHAI08022010.pdf</a></p>
<b>Vermont</b>	Not readily accessible		
<b>Washington</b>	<ul style="list-style-type: none"> <li>• Total number of positive MRSA reports per year</li> <li>• Antibiotic susceptibility patterns assessed by calculating annual percentages</li> </ul>	<ul style="list-style-type: none"> <li>• Reports aggregate rates (by region); stratified by facility type (inpatient, emergency room, outpatient, and other) and by body site</li> <li>• Relies on voluntary reporting systems and does not include all healthcare facilities (therefore not true incidence rates underestimates actual number of cases)</li> </ul>	<p>MRSA Changes in Law:  <a href="http://www.doh.wa.gov/EHSPHL/epitrends/10-epitrends/10-03-epitrends.pdf">http://www.doh.wa.gov/EHSPHL/epitrends/10-epitrends/10-03-epitrends.pdf</a></p>

\* These states now have a plan to or have started reporting since the HAI Subcommittee's October 2008 reporting scan.