



Healthcare Quality Reporting Program

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

8:00-9:00am, March 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**

<input checked="" type="checkbox"/> Nicole Alexander, MD	<input checked="" type="checkbox"/> Linda McDonald, RN	<input checked="" type="checkbox"/> Janet Robinson, RN, Med, CIC
<input checked="" type="checkbox"/> Rosa Baier, MPH	<input checked="" type="checkbox"/> Leonard Mermel, DO, ScM	<input checked="" type="checkbox"/> Melinda Thomas
<input checked="" type="checkbox"/> Utpala Bandy, MD	<input checked="" type="checkbox"/> Pat Mastors	<input checked="" type="checkbox"/> Yongwen Jiang
<input type="checkbox"/> Margaret Cornell, MS, RN	<input checked="" type="checkbox"/> Robin Neale, MT (ASCP), SM, CIC	<input checked="" type="checkbox"/> Georgette Uttley, MEd, BSN, RN
<input checked="" type="checkbox"/> Marlene Fishman, MPH, CIC	<input checked="" type="checkbox"/> Kathleen O’Connell, RN	<input checked="" type="checkbox"/> Nancy Vallande, MSM, MT, CIC
<input checked="" type="checkbox"/> Julie Jefferson, RN, MPH, CIC	<input checked="" type="checkbox"/> Dawn Trudeau, RN	<input type="checkbox"/> Cindy Vanner
<input checked="" type="checkbox"/> Maureen Marsella, RN, BS	<input type="checkbox"/> Lee Ann Quinn, RN, BS, CIC	<input checked="" type="checkbox"/> Samara Viner-Brown, MS

**Time Topic/Notes**

8:00am **Welcome & Administrative Updates**  
*Leonard Mermel, DO, ScM*

- Len opened the meeting, reviewed today’s objective, and provided updates on the previous meeting’s action items:
  - **Research the logistics of sharing NHSN data with HEALTH (Maureen)— Pending**  
 Maureen reported that she can see hospital data when they confer rights for each measure, but said that it may be difficult to separate by device to obtain only MRSA CLABSI data; if so, hospitals will need to provide her with MRSA CLABSI numerators/denominators for HEALTH reporting.  
  
 Whether or not HEALTH needs a data use agreement (DUA) with each hospital remains an open question. Maureen will provide updates, as more information becomes available from the CDC.
  - **Research other states’ use of NHSN for reporting (Maureen) — Pending**
  - **Share the ICP SNE group’s C. difficile definitions (Julie) — Complete**  
 The ICP SNE group’s definitions were attached to the agenda, although Nancy suggested that Julie update the file to include numerators/denominators (similar to the MRSA CLABSI definitions).
  - **Share three C. difficile risk factor articles with Rosa (Len) — Complete**
  - **Conduct a literature search for C. difficile risk factors (Rosa/Rachel) — Complete**

Rachel conducted a literature search and incorporated patient- and facility-level risk factors into the draft report's explanatory text.

- **Review report formats from the reporting scan (All) — Complete**
- **Create MRSA and *C. difficile* report templates (Rosa/Rachel) — Complete**

The report templates were attached with the agenda and discussed below.

- **Create a MRSA and *C. difficile* data submission calendar (Rosa/Ann) — Pending**

Ann is updating the CLABSI data submission calendar for CY 2011 and will include both MRSA and *C. difficile* in the same data submission document. All three measures are quarterly data due six weeks after the end of the quarter, so the dates align, although the time periods are staggered, with CLABSI ongoing from 2010, MRSA CLABSI starting Q1 2011, and *C. difficile* starting Q2 2011 (pilot submission). The revised calendar will go out with this meeting's minutes.

8:05am **MRSA and *C. difficile* Report Formats**

*Rachel Voss, MPH*

*Rosa Baier, MPH*

– MRSA CLABSI

- This is an ICU measure. The group discussed whether or not to report the data in aggregate or by ICU type, but deferred a recommendation until the April discussion of SIR methodology (see below.) All hospitals are currently collecting data by ICU type, as required by NHSN, and will continue to do so.
- The group then reviewed the report templates, providing suggested revisions for the language in the Care Outcomes Report and Methods document. These include changing all references from “MRSA” to reflect the fact that hospitals are submitting data for MRSA bloodstream infections, specifically MRSA CLABSI (which is distinct from the ongoing public reporting of the CLABSI data).
- **Action items:**
  - Incorporate edits to the MRSA CLABSI report templates (Rachel/Rosa)

– *C. difficile*

- The group discussed the ICP SNE group's definition (handout), which specifies symptomatic *C. difficile* infection that is not present on admission (>48 hours after admission). This is a hospital-wide measure. The group also discussed stratifying hospitals by *C. difficile* detection method (i.e., by whether or not a PCR-based method is used).
- **Recommendations:**
  - The group recommended multiplying by 10,000 patient-days (rather than 1,000, as with CLABSI and MRSA CLABSI) to align with the CDC definition.
  - After discussing whether or not to submit data by unit (as required if using NHSN) or as a single numerator/denominator, the group recommended that hospitals submit unit-level data, which will enable HEALTH to aggregate SIRs to the facility-level (if recommended) or report data stratified by unit. The discussion about aggregating or stratifying was deferred until the April discussion of SIR methodology.
  - The group revisited the discussion of stratifying the report by test type (e.g., two tables with diamonds assigned based on stratified group SIRs), and

deferred a recommendation until the program staff can determine if there is a statistically meaningful difference in hospitals' blinded pilot data by test type and make a recommendation to the Subcommittee.

- **Action item:** Add calculation to the measure sheet (Julie/ICP SNE group)
- The group then reviewed the report templates, providing suggested revisions for the language in the Care Outcomes Report and Methods document.
- Discussion included the possibility of creating new process measures (in addition to hand hygiene), such as hospitals' environmental cleaning policies or different testing methods for *C. difficile*. Gina asked whether or not the hand hygiene reports would continue, with Rosa responding that hospitals had requested that the survey be administered again this year. The Subcommittee can make a new recommendation, if desired, for 2012.
- **Action items:**
  - Incorporate edits to the *C. difficile* report templates (Rachel/Rosa)
  - Share Birnbaum's *Infection Control Hospital Epidemiology* article on SIR (Len)
- General discussion:
  - Some hospitals may have higher incidence rates for these infections because they are screening more aggressively, so the group discussed how to communicate that to the public. Some information will be included on the Care Outcomes Reports and some will be included in future press releases. Pat volunteered to speak with the press.
  - The group discussed SIRs and how they account for patient risk. Rosa has had in-depth conversations with the CDC about the calculation and use of SIRs, and will come to the April meeting prepared to discuss this methodology with the group.
  - Julie suggested that the program consider using focus groups to ensure that the reports' language and format is understandable for the lay public, and Sam indicated that she would consider this if resources permit it.

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

*Rosa Baier, MPH*

- **Action items:**
  - Add *C. difficile* calculation to the measure sheet (Julie/ICP SNE group)
  - Incorporate today's feedback into the reports/methods documents (Rachel/Rosa)
  - Follow-up with hospitals to get conferred rights for MRSA CLABSI data (Maureen)
  - Research reporting formats in other states (particularly close states) (Maureen)
  - Discuss SIR methodology at the April meeting (Rosa)
  - Share the Birnbaum article with the group (Len/Rosa)
- 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.)



Healthcare Quality Reporting Program

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

Care Outcomes Report, January-March 2011

MRSA bloodstream infections are caused by a kind of bacteria that can enter the body in many ways. Hospitals in Rhode Island report MRSA bloodstream infections that their intensive care patients get through their central lines (a kind of [catheter](#), or medical tube). MRSA bloodstream infections are also called MRSA central line-associated bloodstream infections, or MRSA CLABSI.

MRSA bloodstream infections 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 bloodstream infections report by reading the Methods document. It includes more information about the data and why this information is important. If you have questions about a hospital's performance, please contact that hospital directly by clicking on each hospital's name.

MRSA bloodstream infections may be preventable with proper care, but some hospitals may have higher rates even if they provide good care. For example:

- There may be more MRSA bloodstream infections in hospitals that care for more patients who have had antibiotics recently, come from nursing homes, or who have diabetes mellitus. Patients who are often in the hospital are also at greater risk.
- Some hospitals may also appear to have higher rates if they test more patients for infections. They may be more likely to diagnose infections.

The diamonds show you how hospitals compare to one another

**Table.** MRSA Bloodstream Infections in Intensive Care Units, 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>	

Hospital (Alphabetical)	Diamonds*
<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) BLOODSTREAM INFECTIONS**

Methods, January-March 2011

MRSA bloodstream infections are caused by a kind of bacteria that can enter the body in many ways. Hospitals in Rhode Island report MRSA bloodstream infections that their intensive care patients get through their central lines (a kind of [catheter](#), or medical tube). MRSA bloodstream infections are also called MRSA central line-associated bloodstream infections, or MRSA CLABSI.

MRSA CLABSI 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 is resistant to (cannot be treated with) certain antibiotics.
MRSA central line-associated bloodstream infections (MRSA CLABSI)	MRSA CLABSI are reasonably preventable with proper care, especially good hygiene.

**Definitions**

Word or Phrase	What does this mean?
Bloodstream infection	An infection caused by bacteria entering a patient's blood.
Central line	A special kind of medical tube ("IV") that connects directly to a patient's heart or a major blood vessel. It can be used to draw blood or give patients medication or nutrition.
MRSA CLABSI	A type of bloodstream infection caused by MRSA bacteria that enter the blood through a central line. These infections are 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**

Hospitals in Rhode Island collect data about the MRSA CLABSI that their ICU patients get and share it with the Department of Health for reporting. Hospital rates are based on MRSA CLABSI. For MRSA CLABSI rates, *lower* numbers are better.

**Measure Calculation**

**Comment [Survey1]:** To be updated after the SIR discussion in April, when the group recommends hospital-level or stratified reporting.

The information in this section is for people who want details about the data calculations. For each hospital, two numbers are calculated: (1) **MRSA CLABSI 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 CLABSI incidence** is calculated as follows:

$$\text{Rate} = \frac{(\text{number of MRSA CLABSI})}{(\text{number of central line days})}$$

The number of patients who develop a MRSA CLABSI is the **numerator**. The number of central line days (the number of days when patients could have developed an infection in the ICU) 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:

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

The **observed cases** are the actual number of MRSA CLABSI (incidence rate numerator) and the **expected cases** are the number we expect to see if we applied the average state MRSA CLABSI 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**

**Comment [Survey2]:** To be updated after the SIR discussion in April, when the group recommends hospital-level or stratified reporting.

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

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

Hospital (Alphabetical)	Number of MRSA Infections	Number of Central Line Days	MRSA Rate per 1,000 Central Line 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 (CDI)**

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. For example:

- 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.
- Some hospitals may also appear to have higher rates if they test more patients for infections, or use different kinds of tests. They may be more likely to diagnose infections.

The diamonds show you how hospitals compare to one another

**Table.** *C. difficile* Infections, 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>	

<b>Hospital (Alphabetical)</b>	<b>Diamonds*</b>
<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 (CDI)**

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 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.

**Comment [RV1]:** To be updated after the SIR discussion in April, when the group recommends hospital-level or stratified reporting (by test type).

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

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

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 10,000. 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 days
- *C. difficile* rate per 10,000 inpatient days
- SIR, based on the state average
- 90% CI range

Hospital (Alphabetical)	Number of <i>C. difficile</i> Infections	Number of Inpatient Days	<i>C. difficile</i> Rate per 10,000 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

**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>	<p>Rate of infections (MRSA &amp; <i>C. diff</i>):</p> <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>	<p>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> </p>
<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>	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>
<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	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>
<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>	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>
<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>	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>

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



Healthcare Quality Reporting Program  
**QUARTERLY DATA SUBMISSION CALENDAR**  
 Calendar Year 2010/2011 Reporting Calendar

This calendar lists the due dates for quarterly data submission to the Department of Health (HEALTH) for public reporting. Three measures are included:

Quarter	Data Submitted To	Beginning
1. CLABSI	ICUs - ICU Collaborative PICU/NICUs - HEALTH*	Ongoing
2. MRSA CLABSI	NHSN†	Q1 2011
3. <i>C. Difficile</i>	HEALTH*	Q2 2011

\*Emailed directly to Ria Mehta at [rmehta@riqio.sdps.org](mailto:rmehta@riqio.sdps.org).

†Proposed; pending confirmation of process for HEALTH to access data from the CDC.

‡*C. Difficile* pilot phase; public reporting slated to begin in Q3 2011.

Please note that two reminder emails will be sent in advance of the reporting deadline. For the CLABSI data, ICU Collaborative members also receive monthly reminders directly from Margaret Cornell at [mcornell@qualitypartnersri.org](mailto:mcornell@qualitypartnersri.org).

Data submitted past the quarterly deadlines, below, will not be included in HEALTH's reports; instead, the reports will indicate that the hospital was unable to report data for that quarter.

Quarter	Quarter End Date	Email Reminder 1 (4 weeks before deadline)	Email Reminder 2 (2 weeks before deadline)	Reporting Deadline (6 weeks after Quarter's end)
Q4 2010	Dec 31, 2010	Jan 10, 2011	Jan 31, 2011	Feb 11, 2011
Q1 2011*	Mar 31, 2011	April 11, 2011	April 25, 2011	May 12, 2011
Q2 2011†	June 30, 2011	July 11, 2011	July 25, 2011	Aug 10, 2011
Q3 2011‡	Sept 30, 2011	Oct 11, 2011	Oct 24, 2011	Nov 11, 2011
Q4 2011	Dec 31, 2011	Jan 9, 2012	Jan 23, 2012	Feb 11, 2012

\*MRSA CLABSI public reporting begins.

†*C. Difficile* pilot phase.

‡*C. Difficile* public reporting begins.