MDRO and CDI Surveillance Using the NHSN

Katherine Allen-Bridson, RN, BSN, CIC
Nurse Consultant
Division of Healthcare Quality Promotion
Centers for Disease Control and Prevention

Michigan  Department of Community Health
October 13, 2010
Objectives

- Provide background for the MDRO and CDAD Module.
- Explain the requirements of the Module.
- Describe the options available in this Module.
- Present the metrics that are available through the Module.
Measuring Resistance through NNIS: 1980 to 2005

National Nosocomial Infection Surveillance (NNIS)

- Hospital Wide*
- Surgical Site
- High Risk Nursery
- Intensive Care Unit

- Phased out 1990s

- Reported pooled % of *S. aureus* reported as MRSA for each event
- Limited to ICUs
- Mix of infection types (device and non-device associated)

Methicillin (oxacillin)-resistant *Staphylococcus aureus* (MRSA) Among ICU Patients, 1995-2004
NHSN: Patient Safety Component Modules

- **Device-associated**
  - CLABSI
  - VAP
  - CAUTI
  - DI

- **Procedure-associated**
  - SSI
  - PPP

- **Medication-associated**
  - AUR

**CLABSI**: Central line-associated bloodstream infection
**VAP**: Ventilator-associated pneumonia
**CAUTI**: Catheter-associated urinary tract infection
**DI**: Dialysis incident

**SSI**: Surgical site infection
**PPP**: Post-procedure pneumonia
**AUR**: Antimicrobial Use and Resistance (Pharmacy & Laboratory data)

**Risk Adjusted (i.e., Device Associated Infection Rates)**
**For inter-facility comparison**
Define reasonable and practical metrics to best measure impact of prevention

Authors from APIC, CDC, SHEA, HICPAC

Five Categories of MDRO Outcome Measures

1. Tracking Patients
2. Monitoring Susceptibility Patterns
3. Estimating Infection Burden
4. Estimating Exposure Burden
5. Quantifying Healthcare Acquisition (which includes Transmission)
Recommended metrics from the SHEA/HICPAC Position Paper were the basis for the new MDRO and CDI Module.
National Healthcare Safety Network (NHSN)

- Device Associated Module
- Procedure Associated Module
- Medication Associated Module
- MDRO and CDI Module
- Dialysis event module
- Vaccination module

Patient Safety Component
Goal of the MDRO and CDAD Module

- Monitoring of MDRO and *C. difficile* infection (CDI) will help to evaluate local trends and changes in the occurrence of these pathogens and related infections.

- This module will provide a mechanism for facilities to report and analyze MDRO and CDI data, in order to inform infection control staff of the impact of targeted prevention efforts.
# Current State Mandates to Use NHSN MDRO/CDI

<table>
<thead>
<tr>
<th>State</th>
<th>Events</th>
<th>NHSN Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA</td>
<td>MDRO-CDIFF LABID</td>
<td>FACWIDE inpatient</td>
</tr>
<tr>
<td></td>
<td>MDRO-VRE BLOOD LABID</td>
<td>FACWIDE inpatient</td>
</tr>
<tr>
<td></td>
<td>MDRO-MRSA BLOOD LABID</td>
<td>FACWIDE inpatient</td>
</tr>
<tr>
<td>DC</td>
<td>MDRO-MRSA BLOOD LABID</td>
<td>FACWIDE inpatient</td>
</tr>
<tr>
<td>NJ</td>
<td>MDRO-MRSA BLOOD LABID</td>
<td>FACWIDE inpatient</td>
</tr>
<tr>
<td></td>
<td>MDRO-AST</td>
<td>FACWIDE inpatient</td>
</tr>
<tr>
<td>NY</td>
<td>MDRO-CDIFF LABID</td>
<td>FACWIDE inpatient</td>
</tr>
<tr>
<td>NV</td>
<td>MDRO-MRSA Infection</td>
<td>?? Not yet determined</td>
</tr>
<tr>
<td></td>
<td>MDRO-MRSA BLOOD LABID</td>
<td>?? Not yet determined</td>
</tr>
<tr>
<td>TN</td>
<td>MDRO-MRSA BLOOD LABID</td>
<td>Facwide inpatient</td>
</tr>
<tr>
<td></td>
<td>MDRO-CDIFF LABID</td>
<td>Facwide inpatient</td>
</tr>
<tr>
<td></td>
<td>MDRO-MRSA BLOOD LABID</td>
<td>ED (off plan)</td>
</tr>
<tr>
<td></td>
<td>MDRO-CDIFF LABID</td>
<td>ED</td>
</tr>
</tbody>
</table>

* October 1, 2010
1) Methicillin-Resistant *Staphylococcus aureus* (MRSA) (option w/ Methicillin-Sensitive *S. aureus* (MSSA)

2) Vancomycin-Resistant *Enterococcus* spp. (VRE)

3) Multidrug-Resistant (MDR) *Klebsiella* spp.

4) Multidrug-Resistant (MDR) *Acinetobacter* spp.

5) *Clostridium difficile*-Associated Disease (CDAD)
Why These Organisms

- The identified organisms have increased in prevalence in US hospitals over the last three decades.

- These organisms have important implications for patient safety.

- Options for treating patients with these infections are often extremely limited.

- These infections are associated with increased lengths of stay, costs, and mortality.
Reporting Requirements and Options

**Required:**
- Infection Surveillance

**OR**
- Laboratory-Identified (LabID) Event (Proxy Infection Measures)

**Optional:**
- Prevention Process Measures:
  - Monitoring Adherence to Hand Hygiene
  - Monitoring Adherence to Gown and Gloves Use
  - Monitoring Adherence to Active Surveillance Testing

- Active Surveillance Testing (AST) Outcome Measures
Reporting Methods

A = Facility-Wide by Location:
- Report separately from all locations of a facility.
- Separate denominators (patient days, admissions, encounters) for all locations.

B = Selected Locations:
- Report separately from 1 or more specific locations of a facility.
- Separate denominators (patient days, admissions, encounters) for each location.

C = Overall Facility-Wide (OFW):
- Options include OFW Inpatient, OFW Outpatient (can do both)
  OR
- Report blood specimen only Lab ID Events in these manners (no CDI)
- Single denominators (patient days, admissions, encounters) for entire facility.
### Medication-Associated Module

**Antimicrobial Use and Resistance**
- Locations
- Microbiology
- Pharmacy

### Multi-Drug Resistant Organism Module

<table>
<thead>
<tr>
<th>Locations</th>
<th>Setting</th>
<th>Specific Organism Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>61EAST - PEDIATRIC ICU</td>
<td>IN - Inpatient</td>
<td>VRE - VRE</td>
</tr>
</tbody>
</table>

**Process and Outcome Measures**

<table>
<thead>
<tr>
<th>Infection Surveillance</th>
<th>AST-Timing</th>
<th>AST-Eligible</th>
<th>Incidence Prevalence</th>
<th>Lab ID Event All Specimens</th>
<th>Lab ID Event Blood Specimens Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>BOTH - Both Admission and Discharge/Transfer</td>
<td>ALL - ALL</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Locations</th>
<th>Setting</th>
<th>Specific Organism Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>61EAST - PEDIATRIC ICU</td>
<td>IN - Inpatient</td>
<td>MRSA - MRSA</td>
</tr>
</tbody>
</table>

**Process and Outcome Measures**

<table>
<thead>
<tr>
<th>Infection Surveillance</th>
<th>AST-Timing</th>
<th>AST-Eligible</th>
<th>Incidence Prevalence</th>
<th>Lab ID Event All Specimens</th>
<th>Lab ID Event Blood Specimens Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>BOTH - Both Admission and Discharge/Transfer</td>
<td>ALL - ALL</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Purpose: To collect MDRO or CDI data on NHSN-defined healthcare-associated infections (HAIs)

HAI: a localized or systemic condition resulting from an adverse reaction to the presence of an infectious agent or its toxin. There must be no evidence that the infection was present or incubating at the time of facility admission.
Infection Surveillance
Definitions

- **MRSA**: *S. aureus* testing oxacillin resistant; or positive from molecular testing for mecA and PBP2a

- **MSSA**: *S. aureus* testing oxacillin intermediate or susceptible; or negative from molecular testing for mecA and PBP2a

- **VRE**: Any Enterococcus spp. testing resistant to vancomycin

- **MDR-Klebsiella**: *Klebsiella* spp. testing intermediate or resistant to ceftazidime or ceftriaxone

- **MDR-Acinetobacter**: *Acinetobacter* spp. resistant to all agents tested within at least 3 antimicrobial classes, including β-lactams, carbapenems, aminoglycosides, and fluoroquinolones

- **C. difficile**: Gastrointestinal System Infection-Gastroenteritis or Gastrointestinal System Infection-Gastrointestinal Tract where *C. difficile* is the associated pathogen
Infection Surveillance Requirements

- At least three months in a calendar year for MDRO or CDI*
  - Months do not have to be sequential

- Reporting Methods
  - A. Facility-wide by location
  - B. Selected locations

- Settings - Inpatient locations:
  - ICUs
  - Specialty Care Areas
  - Neonatal ICUs (NOT for CDI)
  - Other inpatient care areas
### Infection Surveillance

Logged into Pleasant Valley Hospital (ID 10312) as DSIEVERT. Facility Pleasant Valley Hospital (ID 10312) is following the PS component.

#### Patient Information

- **Facility ID**: Pleasant Valley Hospital (10312)
- **Event #**: 13221
- **Patient ID**: DS4321
- **Social Security #**: 
- **First Name**: 
- **Last Name**: 
- **Middle Name**: 
- **Gender**: M - Male
- **Date of Birth**: 05/17/1961
- **Race**: American Indian/Alaska Native Black or African American White
- **Ethnicity**: Asian Native Hawaiian/Other Pacific Islander

#### Event Information

- **Event Type**: SST - Skin and Soft Tissue
- **Date of Event**: 11/27/2008
- **Post-procedure**: Yes
- **MDRO/CDAD Infection**: Yes
- **Specific Organism Type**: MDR-Acinetobacter
- **Location**: INMEDCC - IN:ACUTE:CC:M
- **Date Admitted to Facility**: 11/09/2008

#### Risk Factors

- **BSI**
- **UTI**
- **PNEU**
- **SSI**
Infection Surveillance (2)

Event Details
Specific Event: DECU - Decubitus ulcer

Specify Criteria Used* (check all that apply)
- Abscess
- Heat
- Hypotension
- Hypothermia
- Redness
- Fever
- Purulent drainage or material
- X Pain or tenderness
- X Localized swelling
  Other evidence of infection found on direct exam, during surgery, or by diagnostic tests
- Other signs & symptoms

Laboratory & Diagnostic Testing
- Positive blood culture
- X Positive culture
  Other positive laboratory tests
  Positive culture of pathogen
  Positive culture of skin contaminant

Clinical Diagnosis
- Physician diagnosis of this event type
- Physician institutes appropriate antimicrobial therapy

Secondary Bloodstream Infection*:
Died:
Discharge Date:
Pathogens Identified*:
Y - Yes, If Yes, specify below ->

Pathogens
Pathogen 1: SA - Staphylococcus aureus
10 drugs required

<table>
<thead>
<tr>
<th>Drug</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLIND - Clindamycin</td>
<td>R - Resistant</td>
</tr>
<tr>
<td>DAPTO - Daptomycin</td>
<td>N - Not Tested</td>
</tr>
<tr>
<td>ERYTH - Erythromycin</td>
<td>R - Resistant</td>
</tr>
<tr>
<td>GENT - Gentamicin</td>
<td>R - Resistant</td>
</tr>
<tr>
<td>LNZ - Linezolid</td>
<td>S - Susceptible</td>
</tr>
<tr>
<td>OX - Oxacillin</td>
<td>R - Resistant</td>
</tr>
<tr>
<td>QUIDAL - Quinupristin/dalfopristin</td>
<td>N - Not Tested</td>
</tr>
<tr>
<td>RIF - Rifampin</td>
<td>N - Not Tested</td>
</tr>
<tr>
<td>TMZ - Trimethoprim/sulfamethoxazole</td>
<td>S - Susceptible</td>
</tr>
<tr>
<td>VANC - Vancomycin</td>
<td>S - Susceptible</td>
</tr>
</tbody>
</table>
Surveillance:
Specific Organism Type:
- MDR-Acinetobacter
- C. difficile
- MDR-Klebsiella
- MRSA
- MSSA
- VRE
Location:
Date Admitted to Facility: 09/02/2010

Risk Factors

Event Details
Specific Event: GE - Gastroenteritis

Specify Criteria Used (check all that apply):

Signs & Symptoms
- Abscess
- Vomiting
- Nausea
- Fever
- Acute onset of diarrhea (liquid stools for >12 hours)
- Purulent drainage or material
- Pain or tenderness
- Persistent microscopic or gross blood in stools
- Other evidence of infection found on direct exam, during surgery, or by diagnostic tests
- Other signs & symptoms

Laboratory & Diagnostic Testing
- Positive blood culture
- Positive culture
- Other positive laboratory tests
- Radiographic evidence of infection

Admitted to ICU for CDAD complications: Y - Yes
Surgery for CDAD complications: N - No
Secondary Bloodstream Infection: N - No
Died: N - No
Discharge Date:
Pathogens Identified: Y - Yes
If Yes, specify below ->
Infection Surveillance (4)

Monthly Monitoring Form

NHSN - National Healthcare Safety Network

Logged into DHQP Memorial Hospital (ID 10000) as KATHY. Facility DHQP Memorial Hospital (ID 10000) is following the PS component.

Add Patient Safety Summary Data

Summary Data Type:

- Device Associated - Intensive Care Unit / Other Locations
- Device Associated - Neonatal Intensive Care Unit
- Device Associated - Specialty Care Area
- Device Associated - Outpatient Dialysis - Census Form
- MDR and CDAD Prevention Process and Outcome Measures Monthly Monitoring
- High Risk Inpatient Influenza Vaccination Monthly Monitoring Form - Method A
- High Risk Inpatient Influenza Vaccination Monthly Monitoring Form - Method B
Infection Surveillance (5)

- Admitted to ICU for CDAD complications*: Y-Yes
- Surgery for CDAD complications*: N-No
- Secondary Bloodstream Infection*: N-No
- Died**: N-No
- Pathogens Identified: Y-Yes

Pathogens

<table>
<thead>
<tr>
<th>Pathogen 1:</th>
<th>Clostridium difficile - CD</th>
<th>Search</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug</td>
<td>Result</td>
<td></td>
</tr>
<tr>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

Pathogen 2:
Pathogen 3:
Infection Surveillance (6)  
Monthly Monitoring Form

<table>
<thead>
<tr>
<th>Facility ID*: 10018 (DHQIP MEMORIAL HOSPITAL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location Code*: (ALL) - All</td>
</tr>
<tr>
<td>Month*: September</td>
</tr>
<tr>
<td>Year*: 2009</td>
</tr>
</tbody>
</table>

**General**

- **Setting**: Inpatient Patient Days: 533  
- **Admissions**: 30  
- **Setting**: Outpatient (or Emergency Room) Encounters: 

**MDRO & CDAD Infection Surveillance or LabID Event Reporting**

<table>
<thead>
<tr>
<th>Specific Organism Type</th>
<th>MRSA</th>
<th>VRE</th>
<th>MDR-Klebsiella</th>
<th>MDR-Acinetobacter</th>
<th>C. difficile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infection Surveillance</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LabID Event (All)</td>
<td>![Image]</td>
<td>![Image]</td>
<td>![Image]</td>
<td>![Image]</td>
<td>![Image]</td>
</tr>
<tr>
<td>LabID Event (Blood specimens only)</td>
<td>![Image]</td>
<td>![Image]</td>
<td>![Image]</td>
<td>![Image]</td>
<td>![Image]</td>
</tr>
</tbody>
</table>

**Process Measures**

![Image]
Infection Surveillance Analysis

MDRO/CDI Infection Incidence Rate

\[
\text{MDRO/CDI Infection Incidence Rate} = \frac{\# \text{ of Infections by MDRO or CDI}}{\# \text{ of Patient-Days}} \times 1000
\]

(stratified by time and location)
Laboratory-Identified (LabID) Event Reporting

Purpose: To calculate proxy measures of MDRO or CDI events, exposures, and healthcare acquisitions through monitoring and reporting data from positive clinical cultures.

- This monitoring method enables a facility to rely almost exclusively on data obtained from the laboratory.
LabID Event Reporting Definitions

- **LabID Event**: Non-duplicate MDRO isolate from any specimen source plus unique blood source MDRO isolates; or non-duplicate *C. difficile* positive laboratory assay.

- **MDRO Isolate**: Specimen obtained for clinical decision making testing positive for a MDRO (specified for monitoring), excluding active surveillance testing specimens.

- **Duplicate MDRO Isolate**: Same MDRO, same patient, same month, same location, any source (except blood).

- **Unique Blood Source**: MDRO isolate from blood in patient with no prior positive blood culture for same MDRO in \( \leq 2 \) weeks.

- **Duplicate *C. difficile* Isolate**: Same patient, same location, with a prior positive *C. difficile* laboratory assay in \( \leq 2 \) weeks.
Identifying a MDRO LabID Event

Begin Here

MDRO isolate from any specimen

1st in calendar month

YES

LabID Event (non-duplicate isolate)

NO

Not a LabID Event

Not a LabID Event

MDRO Source = blood

YES

LabID Event (unique MDRO blood source)

MDRO from blood ≤ 2 wks

NO

Blood specimen only LabID Event surveillance
LabID Event Reporting Requirements

- All LabID Events for at least one MDRO or for CDI
- Blood Isolate LabID Events only facility wide for at least one MDRO (no CDI)
- At least one selected location in the healthcare facility
- At least three consecutive months in a calendar year
Location Specific:
- Select only a few locations or every location for full facility coverage.
- Report separately from each selected location in the facility.
- Separate denominators for each location:
  - patient days and admissions for inpatient locations
  - encounters for outpatient locations

Facility-Wide Inpatient or Facility-Wide Outpatient:
- Options currently available only in the MDRO/CDI Module and only for LabID Event reporting.
- Report from throughout a facility’s inpatient or outpatient locations.
- Single denominators for entire facility:
  - FacWideIN – patient days and admissions (specific ones for CDI)
  - FacWideOUT – encounters (specific one for CDI)
Lab ID Event Reporting

Methods:

4 Options

1. Facility-wide by location
2. Selected locations
3. Overall facility-wide (all specimens)
   - Overall Facility Wide Inpatient
   - Overall Facility Wide Outpatient
4. Overall facility-wide (blood specimens only)
   - Overall Facility Wide Inpatient
   - Overall Facility Wide Outpatient

\[\text{separate denominators for each location}\]
MDRO and CDAD Prevention Process and Outcome Measures Monthly Monitoring

Mandatory fields marked with *

- **Facility ID**: 10018 (DHQP MEMORIAL HOSPITAL)
- **Location Code**: CARD STEP - CARDIAC STEP DOWN UNIT
- **Month**: November
- **Year**: 2009

**General**
- **Setting**: Inpatient Patient Days: 587, Admissions: 300
- **Setting**: Outpatient (or Emergency Room) Encounters: 

**MDRO & CDAD Infection Surveillance or LabID Event Reporting**

<table>
<thead>
<tr>
<th>Specific Organism Type</th>
<th>MRSA</th>
<th>VRE</th>
<th>MDR-Klebsiella</th>
<th>MDR-Acinetobacter</th>
<th>C. difficile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infection Surveillance</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>LabID Event (All)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>LabID Event (Blood specimen only)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
NHSN Application Categorizes LabID Events as:

- Community-Onset (CO): LabID Event collected as an outpatient or as an inpatient ≤ 3 days after admission to the facility (i.e., days 1 (admission), 2, or 3)

- Healthcare Facility-Onset (HO): LabID Event specimen collected > 3 days after admission to the facility (i.e., on or after day 4)
<table>
<thead>
<tr>
<th>Specific Metrics</th>
<th>Exposure</th>
<th>Infection (vs. colonization)</th>
<th>Acquisition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admission Prevalence Rate</td>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Prevalence Rate</td>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bloodstream Infection Admission Prevalence Rate</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Bloodstream Infection Incidence or Incidence Density Rate</td>
<td></td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Overall MDRO Infection/Colonization Incidence Rate</td>
<td></td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>Overall MDRO Infection/Colonization Incidence Density Rate</td>
<td></td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>CDI Incidence Rate</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>CDI Healthcare Facility-Onset Incidence Rate</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>CDI Combined Incidence Rate</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
</tbody>
</table>
Prevention Process Measures
Surveillance

1) Monitoring Adherence to Hand Hygiene

2) Monitoring Adherence to Gown and Gloves Use as Part of Contact Precautions

3) Monitoring Adherence to Active Surveillance Testing (for MRSA & VRE only)
Adherence to Prevention Process Measures

- **Required Minimum Reporting - if chosen:**
  
  a) **HH:** at least 30 unannounced observations after HCW contact with patient or objects near patient
  b) **GG:** at least 30 unannounced observations during HCW contact with patient or objects near patient
  c) **AST:** conducted on patient admission or admission & discharge for MRSA and/or VRE only

  - At least one selected location in the healthcare facility (suggest same location selected for Infection Surveillance or LabID Event reporting)
  
  - At least one month in a calendar year

- **Reporting Methods:** Selected locations only

- **Settings:** Inpatient and Outpatient (for HH) locations
MDRO and CDAD Prevention Process and Outcome Measures Monthly Monitoring

Page 1 of 2

*required for saving  **conditionally required based upon monitoring selection in Monthly Reporting Plan

<table>
<thead>
<tr>
<th>Facility ID #: _<strong>9999</strong></th>
<th>*Month: _<strong>8</strong></th>
<th>*Year: _<strong>2008</strong></th>
<th>*Location Code: _<strong>SICU</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting: Inpatient **Days$: <em><strong>120</strong></em>___</td>
<td>** Admissions$: <em><strong>7</strong></em>_____</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Setting: Outpatient (or Emergency Room) **Encounters: __________</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### MDRO & CDAD Infection Surveillance or LabID Event Reporting

<table>
<thead>
<tr>
<th>Specific Organism Type</th>
<th>MRSA</th>
<th>VRE</th>
<th>MDR-Klebsiella</th>
<th>MDR-Acinetobacter</th>
<th>C. difficile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infection Surveillance</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LabID Event</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Process Measures (Optional)

<table>
<thead>
<tr>
<th>Hand Hygiene</th>
<th>Gown and Gloves</th>
</tr>
</thead>
<tbody>
<tr>
<td>** Performed: <em><strong>24</strong></em></td>
<td>** Used: <em><strong>27</strong></em></td>
</tr>
<tr>
<td>** Indicated: <em><strong>30</strong></em></td>
<td>** Indicated: <em><strong>30</strong></em></td>
</tr>
</tbody>
</table>
### Active Surveillance Testing (AST)

| **Active Surveillance Testing performed (check all that apply)** | X | □ |
| **Timing of AST † (circle one)** | Adm Both | Adm Both |
| **AST Eligible Patients * (circle one)** | All NHx | All NHx |

### Admission AST

| **Performed** | 6 |
| **Eligible** | 7 |

### Discharge/Transfer AST

| **Performed** |
| **Eligible** |
Adherence Rate to Process Measures

\[
\text{Adherence Rate} = \frac{\text{# Performed or Used}}{\text{# Indicated or Eligible}} \times 100
\]
**Purpose:** To allow facilities to more accurately quantify exposure burden and/or healthcare acquisition of MRSA and/or VRE:

- Utilize active surveillance testing results
- AST adherence must be performed in the same location (minimum adherence level required to calculate prevalence & incidence)
- Infection Surveillance or LabID Event reporting is also recommended in the same location for the same organism
**AST Outcomes Measures**

- **Required Minimum Reporting - if chosen:**
  - Prevalent and/or incident cases of MRSA or VRE
  - At least one selected location in the healthcare facility
  - At least one month in a calendar year
  - Same location where AST Adherence Process Measures are being performed

- **Reporting Methods:** Selected locations only

- **Settings:** Inpatient locations
AST Outcome Measures

Definitions

- **AST Admission Prevalent Case**
  - Known Positive
    - Patient with documented MRSA or VRE colonization or infection in previous 12 months **OR**
  - Admission AST or Clinical Positive
    - Patient with MRSA or VRE isolated from specimen collected on admission (≤ 3 days).

- **AST Incident Case**
  - Patient with stay > 3 days
  - With no documented MRSA or VRE in previous 12 months or on admission (≤ 3 days)
  - With MRSA or VRE isolated from specimen collected > 3 days after admission or at time of discharge/transfer
AST Outcome Measures Reporting

MDRO and CDAD Prevention Process and Outcome Measures Monthly Monitoring

**Facility ID #: 9999**  **Month: Jan**  **Year: 2010**  **Location Code: MICU**

**Setting:** Inpatient  **Total Days$: 349**  **Total Admissions$: 61**
**Setting:** Outpatient (or Emergency Room)  **Total Encounters$:**

If FACWIDE includes *C. difficile* (omit NICU & Well baby)
**C. diff Days: **  **C. diff Admissions: **  **C. diff Encounters: **

### MDRO & CDAD Infection Surveillance or LabID Event Reporting

<table>
<thead>
<tr>
<th>(Specific Organism Type)</th>
<th>MRSA</th>
<th>VRE</th>
<th>MDR-Klebsiella</th>
<th>MDR-Acinetobacter</th>
<th>C. difficile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infection Surveillance</td>
<td>☒</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LabID Event (All)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LabID Event (Blood specimens only)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Process Measures (Optional)

#### Hand Hygiene
**Performed:**
**Indicated:**

#### Gown and Gloves
**Used:**
**Indicated:**
### AST Outcome Measures Reporting (2)

#### Process Measures (Optional)

<table>
<thead>
<tr>
<th>Hand Hygiene</th>
<th><strong>Performed:</strong></th>
<th><strong>Indicated:</strong></th>
<th>Gown and Gloves</th>
<th><strong>Used:</strong></th>
<th><strong>Indicated:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Gown and Gloves</td>
<td>Gown and Gloves</td>
<td>Gown and Gloves</td>
</tr>
</tbody>
</table>

#### Active Surveillance Testing (AST)

- **Active Surveillance Testing performed**
  - [X]

- **Timing of AST**  
  - [Adm, Both]

- **AST Eligible Patients**
  - [All NHx, All NHx]

#### Admission AST

- **Performed**: 58
- **Eligible**: 61

#### Prevalent Cases

<table>
<thead>
<tr>
<th>Specific Organism Type</th>
<th>MRSA</th>
<th>VRE</th>
<th>MDR-Klebsiella</th>
<th>MDR-Acinetobacter</th>
<th>C.difficile</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AST/Clinical Positive</strong></td>
<td>25</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Known Positive</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Incident Cases:**

| **AST/Clinical Positive** |      |     |                |                   |             |
AST Outcome Measures Analysis

**AST Admission Prevalence**

\[
\text{# of Admission AST/Clinical/Known Positives} \times 100
\]

\[
= \frac{\text{# of Admissions}}{\text{# of Admissions}}
\]

**AST Incidence / Direct Acquisition**

\[
\text{# of Discharge/Transfer AST and New Clinical Positives} \times 1000
\]

\[
= \frac{\text{# of Patient-Days}}{\text{# of Patient-Days}}
\]
Analysis in the MDRO and CDAD Module
1) Generate a Dataset

Generate Data Sets

Generate Patient Safety Analysis Data Sets

Date Last Generated  Action

Mar 6 2009 4:30PM  Generate New

The data set generation process will take several minutes. Do not logoff or close this window while the process is running. You may minimize the browser window and work in other applications while you wait.
2) Choose Output Options

Patient Safety Component
Analysis Output Options

- Device-Associated Module
- Procedure-Associated Module
- Medication-Associated Module
- MDRO/CDAD Module - Infection Surveillance
- MDRO/CDAD Module - LABID Event Reporting
- MDRO/CDAD Module - Process Measures
- MDRO/CDAD Module - Outcome Measures
- High Risk Inpatient Influenza Vaccination Module
- Advanced
- My Custom Output
- Published Output
3) Choose Reporting Option and Organism

- Device-Associated Module
- Procedure-Associated Module
- Medication-Associated Module
- MDRO/CDAD Module
- Infection Surveillance

- All MRSA HAI
- CDC Defined Output
  - Line Listing for All MRSA HAI
  - Frequency Table for All MRSA HAI
  - Bar Chart for All MRSA HAI
  - Pie Chart for All MRSA HAI
  - Rate Table for MRSA HAI Data by Location
- All MSSA HAI
- All C. difficile HAI
### 4) Basic Run Options – Line Listing

**National Healthcare Safety Network**

**Line Listing - All MRSA HAI**

As of: March 9, 2009 at 5:09 PM
Date Range: All MDRO EVENTS

<table>
<thead>
<tr>
<th>orgID</th>
<th>eventID</th>
<th>eventType</th>
<th>centralLine</th>
<th>urinaryCath</th>
<th>ventUsed</th>
<th>postProc</th>
<th>spcEvent</th>
<th>admitDate</th>
<th>eventDate</th>
<th>location</th>
<th>mrsa</th>
<th>mssa</th>
<th>vre</th>
<th>acine</th>
<th>kleb</th>
<th>cdf</th>
</tr>
</thead>
<tbody>
<tr>
<td>10312</td>
<td>14317</td>
<td>REPR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EMET</td>
<td>01/15/2008</td>
<td>01/23/2008</td>
<td>INHONCSCA</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>10312</td>
<td>13027</td>
<td>SST</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DECU</td>
<td>01/12/2008</td>
<td>01/23/2008</td>
<td>INHONCSCA</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>10312</td>
<td>13029</td>
<td>SST</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DECU</td>
<td>01/15/2008</td>
<td>01/23/2008</td>
<td>INHONCSCA</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>10312</td>
<td>13048</td>
<td>REPR</td>
<td></td>
<td></td>
<td>N</td>
<td></td>
<td>OREP</td>
<td>01/25/2008</td>
<td>01/30/2008</td>
<td>INSURGCC</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>10312</td>
<td>13133</td>
<td>SST</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DECU</td>
<td>01/15/2008</td>
<td>01/24/2008</td>
<td>PEDMEDSURG</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>10312</td>
<td>13216</td>
<td>BSI</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td>LCBI</td>
<td>10/29/2008</td>
<td>11/12/2008</td>
<td>INMEDCC</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>10312</td>
<td>13221</td>
<td>SST</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DECU</td>
<td>11/09/2008</td>
<td>11/27/2008</td>
<td>INMEDCC</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>10312</td>
<td>13474</td>
<td>SST</td>
<td></td>
<td></td>
<td>N</td>
<td></td>
<td>DECU</td>
<td>11/09/2008</td>
<td>11/12/2008</td>
<td>INMEDCC</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>10312</td>
<td>13561</td>
<td>BSI</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td>LCBI</td>
<td>10/07/2008</td>
<td>10/23/2008</td>
<td>INMSCC</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>10312</td>
<td>13563</td>
<td>SST</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SKIN</td>
<td>10/14/2008</td>
<td>10/16/2008</td>
<td>INMEDWARD</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>10312</td>
<td>13944</td>
<td>BSI</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td>LCBI</td>
<td>11/15/2008</td>
<td>12/01/2008</td>
<td>INBMSCA</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>10312</td>
<td>13950</td>
<td>BJ</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td>BONE</td>
<td>11/30/2008</td>
<td>12/05/2008</td>
<td>INBMSCA</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>10312</td>
<td>13973</td>
<td>SST</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BURN</td>
<td>12/13/2008</td>
<td>12/20/2008</td>
<td>INFMWARD</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>10312</td>
<td>13977</td>
<td>LRI</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td>LUNG</td>
<td>12/12/2008</td>
<td>12/20/2008</td>
<td>INGIWARD</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>10312</td>
<td>13995</td>
<td>EENT</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td>UR</td>
<td>12/12/2008</td>
<td>12/17/2008</td>
<td>INENTWARD</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>10312</td>
<td>13997</td>
<td>EENT</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td>UR</td>
<td>12/16/2008</td>
<td>12/17/2008</td>
<td>INENTWARD</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>10312</td>
<td>14106</td>
<td>UTI</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td>SUTI</td>
<td>12/01/2008</td>
<td>12/12/2008</td>
<td>INGIWARD</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>10312</td>
<td>14290</td>
<td>SSI</td>
<td>BONE</td>
<td></td>
<td></td>
<td></td>
<td>SUTI</td>
<td>05/10/2008</td>
<td>05/15/2008</td>
<td>INORTWARD</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>10312</td>
<td>14293</td>
<td>BSI</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td>LCBI</td>
<td>02/28/2008</td>
<td>03/02/2008</td>
<td>INCARDCC</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

Sorted by orgID, eventID
Data contained in this report were last generated on March 6, 2009 at 4:30 PM.
5) Basic Run Options – Frequency Tables

### Frequency Table - All MRSA HAI

As of: March 9, 2009 at 5:14 PM
Date Range: All MDROEVENTS

**orgID=10312**

<table>
<thead>
<tr>
<th>location</th>
<th>BJ</th>
<th>BSI</th>
<th>EENT</th>
<th>LRI</th>
<th>REPR</th>
<th>SSI</th>
<th>SST</th>
<th>UTI</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>INBMTSCA</td>
<td>1</td>
<td>50.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>2</td>
</tr>
<tr>
<td>INCARDCC</td>
<td>0</td>
<td>0.00</td>
<td>100.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>1</td>
</tr>
<tr>
<td>INENTWARD</td>
<td>0</td>
<td>0.00</td>
<td>100.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>2</td>
</tr>
<tr>
<td>INGIWARD</td>
<td>0</td>
<td>0.00</td>
<td>0.00</td>
<td>100.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>2</td>
</tr>
<tr>
<td>INHONCSCA</td>
<td>0</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>100.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>3</td>
</tr>
<tr>
<td>INIFMWARD</td>
<td>0</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>100.00</td>
<td>0.00</td>
<td>0.00</td>
<td>1</td>
</tr>
<tr>
<td>INMEDCC</td>
<td>0</td>
<td>33.33</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>100.00</td>
<td>0.00</td>
<td>3</td>
</tr>
<tr>
<td>INMAEDWARD</td>
<td>0</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>100.00</td>
<td>1</td>
</tr>
<tr>
<td>INMSCC</td>
<td>0</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>100.00</td>
<td>1</td>
</tr>
<tr>
<td>INORTWARD</td>
<td>0</td>
<td>100.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>100.00</td>
<td>1</td>
</tr>
<tr>
<td>INSURGCC</td>
<td>0</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>100.00</td>
<td>0.00</td>
<td>0.00</td>
<td>1</td>
</tr>
<tr>
<td>PEDMEDSURG</td>
<td>0</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>100.00</td>
<td>0.00</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>7</td>
<td>1</td>
<td>19</td>
</tr>
</tbody>
</table>

### Frequency Table - All MRSA LabID Events

As of: March 9, 2009 at 5:17 PM
Date Range: All LABIDEVENTS

**orgID=10312**

<table>
<thead>
<tr>
<th>specimenSource</th>
<th>CO</th>
<th>HO</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLDSRC</td>
<td>9</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>BONESRC</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>PUS</td>
<td>4</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>SKINSRC</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>SPUTUM</td>
<td>7</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>SRGESRC</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>ULCERSRC</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>URINE</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>WOUNDSCC</td>
<td>7</td>
<td>58.33</td>
<td>12</td>
</tr>
</tbody>
</table>

**Total** 19 30 49

Data contained in this report were last generated on March 6, 2009 at 4:30 PM.
6) Basic Run Options – Pie or Bar Charts

Pie Chart – All MRSA HAI
As of: March 9, 2009 at 5:22 PM
Date Range: All MDRO EVENTS
orgID=10312
FREQUENCY of eventType

location=INBMTSICA
BJ 1 50%

BSI 1 100%

Bar Chart – All MRSA LabID Events
As of: March 9, 2009 at 5:23 PM
Date Range: All LABID EVENTS
orgID=10312 location=INCARDCC

Count
2
1
0

BLDSFC SPUTUM URINE

specimenSource

Data contained in this report were last generated on March 6, 2009 at 4:30 PM.
7) Basic Run Options – Rate Tables

National Healthcare Safety Network
Rate Table - All MRSA HAI by Location
As of: March 9, 2009 at 5:30 PM
Date Range: All MDRO_RATES

<table>
<thead>
<tr>
<th>location</th>
<th>summaryYM</th>
<th>MRSA_Count</th>
<th>numPatDays</th>
<th>MRSARate</th>
</tr>
</thead>
<tbody>
<tr>
<td>INCARDCC</td>
<td>2008M02</td>
<td>0</td>
<td>312</td>
<td>0.0</td>
</tr>
<tr>
<td>INCARDCC</td>
<td>2008M03</td>
<td>1</td>
<td>312</td>
<td>3.2</td>
</tr>
</tbody>
</table>

Source of aggregate data: Not available
Data contained in this report were last generated on March 6, 2009 at 4:30 PM.

National Healthcare Safety Network
Rate Table - All MRSA LabID Events by Location
As of: March 9, 2009 at 5:30 PM
Date Range: All LABID_RATESMRSA

<table>
<thead>
<tr>
<th>location</th>
<th>summaryYM</th>
<th>MRSA_admPrevCount</th>
<th>numAdms</th>
<th>MRSA_admPrevRate</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL-IN</td>
<td>2007M01</td>
<td>0</td>
<td>356</td>
<td>0.0</td>
</tr>
<tr>
<td>ALL-IN</td>
<td>2008M06</td>
<td>0</td>
<td>120</td>
<td>0.0</td>
</tr>
<tr>
<td>ALL-IN</td>
<td>2008M11</td>
<td>1</td>
<td>658</td>
<td>0.2</td>
</tr>
</tbody>
</table>

Source of aggregate data: Not available
Data contained in this report were last generated on March 6, 2009 at 4:30 PM.
Process Measures – HH & GG Adherence

Log into Pleasant Valley Hospital (ID 10312) as DSIEVERT.
Facility Pleasant Valley Hospital (ID 10312) is following the PS component.

Patient Safety Component
Analysis Output Options

- Expand All
- Collapse All

- Device-Associated Module
- Procedure-Associated Module
- Medication-Associated Module
- MDRO/CDAD Module - Infection Surveillance
- MDRO/CDAD Module - LABID Event Reporting
- MDRO/CDAD Module - Process Measures
  - Specific Process Measures
  - CDC Defined Output
    - Rate Table for Hand Hygiene Adherence
    - Rate Table for Gown/Glove Adherence
  - All MRSA AST Process Measures
  - All VRE AST Process Measures
- MDRO/CDAD Module - Outcome Measures
- High Risk Inpatient Influenza Vaccination Module
- Advanced
### National Healthcare Safety Network

#### Rate Table - All Hand Hygiene Adherence by Location

As of: March 17, 2009 at 10:48 AM  
Date Range: All HH_RATESDRO

<table>
<thead>
<tr>
<th>location</th>
<th>summaryYM</th>
<th>hhPerformed</th>
<th>hhIndicated</th>
<th>HH_adhRate</th>
</tr>
</thead>
<tbody>
<tr>
<td>INCARDCC</td>
<td>2008M03</td>
<td>25</td>
<td>30</td>
<td>83.3</td>
</tr>
<tr>
<td>INCARDCC</td>
<td>2008M06</td>
<td>40</td>
<td>45</td>
<td>88.9</td>
</tr>
</tbody>
</table>

Source of aggregate data: Not available  
Data contained in this report were last generated on March 11, 2009 at 3:25 PM.

#### Rate Table - All Gown/Glove Adherence by Location

As of: March 10, 2009 at 9:52 AM  
Date Range: All GG_RATESDRO

<table>
<thead>
<tr>
<th>location</th>
<th>summaryYM</th>
<th>ggUsed</th>
<th>ggIndicated</th>
<th>GG_adhRate</th>
</tr>
</thead>
<tbody>
<tr>
<td>INMEDCC</td>
<td>2008M05</td>
<td>35</td>
<td>66</td>
<td>53</td>
</tr>
<tr>
<td>INMEDCC</td>
<td>2008M09</td>
<td>26</td>
<td>30</td>
<td>86.7</td>
</tr>
</tbody>
</table>

Source of aggregate data: Not available  
Data contained in this report were last generated on March 10, 2009 at 9:42 AM.
Modify - Output Options

Patient Safety Component
Analysis Output Options

Expand All  Collapse All

- Device-Associated Module
- Procedure-Associated Module
- Medication-Associated Module
- MDRO/CDAD Module - Infection Surveillance
- MDRO/CDAD Module - LABID Event Reporting
  - All LabID Events
  - All MRSA LabID Events
  - All MSSA LabID Events
  - All C. difficile LabID Events
- CDC Defined Output
  - Line Listing for All CDIF LabID Events
  - Frequency Table for All CDIF LabID Events
  - Bar Chart for All CDIF LabID Events
  - Pie Chart for All CDIF LabID Events
  - Rate Table for CDIF LabID Data by Location

Run  Modify
Run  Modify
Run  Modify
Run  Modify
Run  Modify
## Modify – Line Listing Output

### National Healthcare Safety Network

#### Line Listing - All CDIF LabID Events

As of: March 11, 2008 at 11:57 AM

**Date Range:** LABID EVENTS specimenDate 01/01/2008 to 12/31/2008

<table>
<thead>
<tr>
<th>patID</th>
<th>eventID</th>
<th>location</th>
<th>outpatient</th>
<th>prevPos</th>
<th>onset</th>
<th>cdIAssay</th>
<th>admitDate</th>
<th>locationAdmitDate</th>
<th>specimenDate</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-107</td>
<td>13072</td>
<td>INMEDCC</td>
<td>N</td>
<td>N</td>
<td>HO</td>
<td>Incident</td>
<td>09/01/2008</td>
<td>09/01/2008</td>
<td>09/09/2008</td>
</tr>
<tr>
<td>DS0825</td>
<td>14666</td>
<td>OUTOCCL</td>
<td>Y</td>
<td>N</td>
<td>CO</td>
<td>Incident</td>
<td>.</td>
<td>02/03/2008</td>
<td></td>
</tr>
<tr>
<td>DS0825</td>
<td>14667</td>
<td>OUTOCCL</td>
<td>Y</td>
<td>Y</td>
<td>CO</td>
<td>Recurrent</td>
<td>.</td>
<td>02/25/2008</td>
<td></td>
</tr>
<tr>
<td>DS0825</td>
<td>14668</td>
<td>OUTGICL</td>
<td>Y</td>
<td>Y</td>
<td>CO</td>
<td>Incident</td>
<td>.</td>
<td>02/28/2008</td>
<td></td>
</tr>
<tr>
<td>DS0826</td>
<td>14670</td>
<td>OUTGICL</td>
<td>Y</td>
<td>N</td>
<td>CO-HCFA</td>
<td>Incident</td>
<td>.</td>
<td>02/05/2008</td>
<td></td>
</tr>
<tr>
<td>DS0826</td>
<td>14671</td>
<td>OUTOCCL</td>
<td>Y</td>
<td>N</td>
<td>CO-HCFA</td>
<td>Incidnet</td>
<td>.</td>
<td>02/10/2008</td>
<td></td>
</tr>
<tr>
<td>DS0826</td>
<td>14672</td>
<td>OUTGICL</td>
<td>Y</td>
<td>Y</td>
<td>CO</td>
<td>Recurrent</td>
<td>.</td>
<td>02/23/2008</td>
<td></td>
</tr>
<tr>
<td>DS0827</td>
<td>14673</td>
<td>OUTOCCL</td>
<td>Y</td>
<td>N</td>
<td>CO</td>
<td>Incident</td>
<td>.</td>
<td>02/17/2008</td>
<td></td>
</tr>
<tr>
<td>DS0828</td>
<td>14674</td>
<td>OUTGICL</td>
<td>Y</td>
<td>Y</td>
<td>CO</td>
<td>Incident</td>
<td>.</td>
<td>02/13/2008</td>
<td></td>
</tr>
<tr>
<td>DS0828</td>
<td>14675</td>
<td>OUTOCCL</td>
<td>Y</td>
<td>Y</td>
<td>CO</td>
<td>Recurrent</td>
<td>.</td>
<td>02/28/2008</td>
<td></td>
</tr>
<tr>
<td>DS1213</td>
<td>14571</td>
<td>INSURGCN</td>
<td>N</td>
<td>N</td>
<td>CO</td>
<td>Incident</td>
<td>10/05/2008</td>
<td>10/05/2008</td>
<td>10/07/2008</td>
</tr>
<tr>
<td>DS1314</td>
<td>14572</td>
<td>INSURGCN</td>
<td>N</td>
<td>N</td>
<td>HO</td>
<td>Incident</td>
<td>10/03/2008</td>
<td>10/17/2008</td>
<td>10/19/2008</td>
</tr>
<tr>
<td>DS1514</td>
<td>14573</td>
<td>INMEDCC</td>
<td>N</td>
<td>N</td>
<td>CO</td>
<td>Incident</td>
<td>09/22/2008</td>
<td>09/22/2008</td>
<td>09/23/2008</td>
</tr>
<tr>
<td>DS1615</td>
<td>14574</td>
<td>INMEDCC</td>
<td>N</td>
<td>N</td>
<td>HO</td>
<td>Incident</td>
<td>09/06/2008</td>
<td>09/16/2008</td>
<td>09/18/2008</td>
</tr>
<tr>
<td>DS1716</td>
<td>14575</td>
<td>INGIVARD</td>
<td>N</td>
<td>N</td>
<td>CO-HCFA</td>
<td>Incident</td>
<td>07/20/2008</td>
<td>07/21/2008</td>
<td>07/21/2008</td>
</tr>
<tr>
<td>DS9876</td>
<td>14320</td>
<td>INSURGCN</td>
<td>N</td>
<td>N</td>
<td>HO</td>
<td>Incident</td>
<td>10/05/2008</td>
<td>10/07/2008</td>
<td>10/23/2008</td>
</tr>
<tr>
<td>ET100</td>
<td>14428</td>
<td>INGIVARD</td>
<td>N</td>
<td>N</td>
<td>HO</td>
<td>Incident</td>
<td>07/01/2008</td>
<td>07/01/2008</td>
<td>07/06/2008</td>
</tr>
<tr>
<td>ET100A</td>
<td>14431</td>
<td>INGIVARD</td>
<td>N</td>
<td>N</td>
<td>HO</td>
<td>Incident</td>
<td>01/15/2008</td>
<td>01/15/2008</td>
<td>01/26/2008</td>
</tr>
<tr>
<td>ET101F1</td>
<td>14426</td>
<td>INGIVARD</td>
<td>N</td>
<td>N</td>
<td>HO</td>
<td>Incident</td>
<td>06/01/2008</td>
<td>06/01/2008</td>
<td>06/06/2008</td>
</tr>
<tr>
<td>ET102</td>
<td>14499</td>
<td>INMEDWARD</td>
<td>N</td>
<td>N</td>
<td>HO</td>
<td>Incident</td>
<td>04/10/2008</td>
<td>04/10/2008</td>
<td>04/29/2008</td>
</tr>
<tr>
<td>ET102T2</td>
<td>14494</td>
<td>INMEDWARD</td>
<td>N</td>
<td>N</td>
<td>HO</td>
<td>Incident</td>
<td>05/01/2008</td>
<td>05/01/2008</td>
<td>05/10/2008</td>
</tr>
<tr>
<td>ET102T2</td>
<td>14496</td>
<td>INMEDWARD</td>
<td>N</td>
<td>Y</td>
<td>HO</td>
<td>Recurrent</td>
<td>05/01/2008</td>
<td>05/01/2008</td>
<td>05/25/2008</td>
</tr>
<tr>
<td>ET102T2</td>
<td>14497</td>
<td>INMEDWARD</td>
<td>N</td>
<td>Y</td>
<td>HO</td>
<td>Recurrent</td>
<td>05/01/2008</td>
<td>05/01/2008</td>
<td>05/10/2008</td>
</tr>
<tr>
<td>ET117A</td>
<td>14097</td>
<td>INENTWARD</td>
<td>N</td>
<td>N</td>
<td>HO</td>
<td>Incident</td>
<td>12/01/2008</td>
<td>12/01/2008</td>
<td>12/12/2008</td>
</tr>
<tr>
<td>MS124</td>
<td>14344</td>
<td>OUTOCCL</td>
<td>Y</td>
<td>N</td>
<td>CO</td>
<td>Incident</td>
<td>.</td>
<td>02/14/2008</td>
<td></td>
</tr>
<tr>
<td>MS129</td>
<td>14372</td>
<td>INGIVARD</td>
<td>N</td>
<td>HO</td>
<td>Recurrent</td>
<td>04/25/2008</td>
<td>04/25/2008</td>
<td>05/25/2008</td>
<td></td>
</tr>
<tr>
<td>RP1234</td>
<td>13473</td>
<td>OUTGICL</td>
<td>Y</td>
<td>Y</td>
<td>CO-HCFA</td>
<td>Incident</td>
<td>.</td>
<td>11/20/2008</td>
<td></td>
</tr>
<tr>
<td>RP1234</td>
<td>14364</td>
<td>OUTGICL</td>
<td>Y</td>
<td>Y</td>
<td>CO</td>
<td>Recurrent</td>
<td>11/10/2008</td>
<td>.</td>
<td>12/06/2008</td>
</tr>
</tbody>
</table>

Sorted by orgID patID

Data contained in this report were last generated on March 11, 2008 at 3:25 PM.

Any C. diff LabID Event with a blank cdIAssay field indicates that it is related to a previous defining Event in a different location.
Modify – Rate Table

Analysis Rate Table

Analysis Data Set: LABID_RatesMRSA

Modify Attributes of the Output:

Last Modified On: 03/06/2009
Output Type: Rate Table
Output Name: Rate Table for MRSA LabID Data by Location
Output Title: Rate Table - All MRSA LabID Events by Location

Select output format:
Output Format: RTF (Rich Text Format)
Choose page Orientation: Portrait

Select a time period to compute statistics for a Cumulative Time Period:
Date Variable: Beginning: Ending:

Specify Other Selection Criteria:
location = INMEDCC

Other Options:
Group by: summaryYM

Print Variable Reference List
## Modify – Rate Table Output

### MRSA Admission Prevalence

<table>
<thead>
<tr>
<th>Summary Mon/Yr</th>
<th>Location</th>
<th>LabID</th>
<th>Admissions</th>
<th>MRSA Admission Prevalence Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008M03</td>
<td>INMEDCC</td>
<td>1</td>
<td>32</td>
<td>3.1</td>
</tr>
<tr>
<td>2008M05</td>
<td>INMEDCC</td>
<td>0</td>
<td>422</td>
<td>0.0</td>
</tr>
<tr>
<td>2008M11</td>
<td>INMEDCC</td>
<td>0</td>
<td>30</td>
<td>0.0</td>
</tr>
</tbody>
</table>

### MRSA CO Admission Prevalence

<table>
<thead>
<tr>
<th>Summary Mon/Yr</th>
<th>Location</th>
<th>LabID</th>
<th>Admissions</th>
<th>MRSA Percent Admission Prevalence/Community-Onset</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008M03</td>
<td>INMEDCC</td>
<td>0</td>
<td>1</td>
<td>100.0</td>
</tr>
<tr>
<td>2008M05</td>
<td>INMEDCC</td>
<td>0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>2008M11</td>
<td>INMEDCC</td>
<td>0</td>
<td>0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

### MRSA HO Admission Prevalence

<table>
<thead>
<tr>
<th>Summary Mon/Yr</th>
<th>Location</th>
<th>LabID</th>
<th>Admissions</th>
<th>MRSA Percent Admission Prevalence/Healthcare Facility-Onset</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008M03</td>
<td>INMEDCC</td>
<td>1</td>
<td>1</td>
<td>100.0</td>
</tr>
<tr>
<td>2008M05</td>
<td>INMEDCC</td>
<td>0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>2008M11</td>
<td>INMEDCC</td>
<td>0</td>
<td>0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

### MRSA Blood Incident

<table>
<thead>
<tr>
<th>Summary Mon/Yr</th>
<th>Location</th>
<th>LabID</th>
<th>Admissions</th>
<th>MRSA BSI Incidence Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008M03</td>
<td>INMEDCC</td>
<td>0</td>
<td>32</td>
<td>0.0</td>
</tr>
<tr>
<td>2008M05</td>
<td>INMEDCC</td>
<td>0</td>
<td>422</td>
<td>0.0</td>
</tr>
<tr>
<td>2008M11</td>
<td>INMEDCC</td>
<td>0</td>
<td>30</td>
<td>0.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summary Mon/Yr</th>
<th>Location</th>
<th>LabID</th>
<th>Admissions</th>
<th>MRSA BSI Incidence Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008M03</td>
<td>INMEDCC</td>
<td>0</td>
<td>723</td>
<td>0.0</td>
</tr>
<tr>
<td>2008M05</td>
<td>INMEDCC</td>
<td>0</td>
<td>2000</td>
<td>0.0</td>
</tr>
<tr>
<td>2008M11</td>
<td>INMEDCC</td>
<td>1</td>
<td>533</td>
<td>1.9</td>
</tr>
</tbody>
</table>

### Overall MRSA Prevalence

<table>
<thead>
<tr>
<th>Summary Mon/Yr</th>
<th>Location</th>
<th>LabID</th>
<th>Admissions</th>
<th>Overall MRSA Prevalence Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008M03</td>
<td>INMEDCC</td>
<td>1</td>
<td>32</td>
<td>3.1</td>
</tr>
<tr>
<td>2008M05</td>
<td>INMEDCC</td>
<td>0</td>
<td>422</td>
<td>0.0</td>
</tr>
<tr>
<td>2008M11</td>
<td>INMEDCC</td>
<td>3</td>
<td>30</td>
<td>10.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summary Mon/Yr</th>
<th>Location</th>
<th>LabID</th>
<th>Patient Days</th>
<th>Overall MRSA Infection/Colonization Incidence Density Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008M03</td>
<td>INMEDCC</td>
<td>0</td>
<td>723</td>
<td>0.0</td>
</tr>
<tr>
<td>2008M05</td>
<td>INMEDCC</td>
<td>0</td>
<td>2000</td>
<td>0.0</td>
</tr>
<tr>
<td>2008M11</td>
<td>INMEDCC</td>
<td>3</td>
<td>533</td>
<td>5.6</td>
</tr>
</tbody>
</table>
Summary Review

- NHSN enrollment, digital certificate, facility-location set-up.

- Complete Monthly Reporting Plan.

- Choose Infection Surveillance and/or LabID Event Reporting.

- Choose from any Optional Process or Outcomes Measures.

- Report into Module for at least 3 months in a calendar year.
  - Consecutive months required for LabID Event reporting.

- Report into NHSN for at least 6 months in a calendar year.
  - = “Active Participant”
Home Page:
http://www.cdc.gov/ncidod/dhqdp/nhsn.html

Document Library (main link to all specific protocols / forms):
http://www.cdc.gov/ncidod/dhqdp/nhsn_documents.html

MDRO and CDAD Module:
http://www.cdc.gov/ncidod/dhqdp/nhsn_MDRO_CDAD.html
Questions ?