HEALTHCARE-ASSOCIATED INFECTIONS REPORTING IN NORTH CAROLINA

NC DPH HAI Prevention Program
February 27, 2013
Brief review of NC reporting requirements
Monthly data reconciliation
Quarterly report
Odds & Ends
Question & Answer
NC REPORTING REQUIREMENTS
House Bill 809

- Required NC DHHS to establish statewide surveillance and reporting system for HAIs
  - By December 31, 2011
  - Uniform reporting standards for select HAIs
    - Preference for electronic surveillance to the “greatest extent practicable”
    - Requirement for electronic reporting
    - Each hospital subject to statewide surveillance and reporting to NC DHHS via CDC’s NHSN

- Annual report to General Assembly

REPORTING REQUIREMENT (CONTINUED)

10A North Carolina Administrative Code 41A .0106

Who
What
When
How
Licensed hospitals including:
- Acute care hospitals
- Long-term acute care hospitals
- Inpatient rehabilitation facilities
- State-operated mental health facilities
- Specialty hospitals

Exceptions to reporting
- Critical access hospitals
- Hospitals who have received CMS exception from reporting
  - Example: CLABSI and CAUTI reporting because no intensive care units in hospital
  - Hospitals cannot make their own determination, must receive exemption from CMS
### WHAT – REPORTABLE HAI S

Reporting requirements of Centers for Medicare and Medicaid Services – Inpatient Prospective Payment System

<table>
<thead>
<tr>
<th>HAI Event</th>
<th>Facility Type</th>
<th>Reporting Start Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Line-Associated Bloodstream Infections (CLABSI)</td>
<td>Acute Care Hospitals: Adult, Pediatric, and Neonatal ICUs</td>
<td>January 2011</td>
</tr>
<tr>
<td>Catheter-Associated Urinary Tract Infections (CAUTI)</td>
<td>Adult and Pediatric ICUs</td>
<td>January 2012</td>
</tr>
<tr>
<td>Surgical Site Infections (SSI)</td>
<td>Acute Care Hospitals: Colon and abdominal hysterectomy procedures</td>
<td>January 2012</td>
</tr>
<tr>
<td>CLABSI</td>
<td>Long Term Care Hospitals</td>
<td>October 2012</td>
</tr>
<tr>
<td>CAUTI</td>
<td>Long Term Care Hospitals</td>
<td>October 2012</td>
</tr>
<tr>
<td>CAUTI</td>
<td>Inpatient Rehabilitation Facilities</td>
<td>October 2012</td>
</tr>
<tr>
<td>MRSA bacteremia (laboratory identification)</td>
<td>Acute Care Hospitals</td>
<td>January 2013</td>
</tr>
<tr>
<td>Clostridium difficile (laboratory identification)</td>
<td>Acute Care Hospitals</td>
<td>January 2013</td>
</tr>
</tbody>
</table>
WHEN – REPORTING DEADLINES

- **Events (numerator) data**
  - Within 30 days of when the event was identified

- **Summary (denominator) data**
  - Within 30 days of the end of the reporting month
    - Example: March data should be entered in NHSN by April 30
REPORTING MECHANISM

NC DPH access hospital data via NHSN
Must be ‘in-plan’ (i.e., monthly plan entered for each HAI for each month)
NC DPH cannot change hospital data in NHSN
   Hospital NHSN administrator must change the data
   Ensure correct data also received by CMS

10A NCAC 41A .0106: “Comply with all reporting requirements for general participation in the National Healthcare Safety Network”
   Hospitals to adhere to NHSN reporting guidelines
   Use NHSN definitions
MONTHLY RECONCILIATION
OVERVIEW OF PROCESS

Hospitals
Enter data by deadline

NC HAI team
Data downloaded, monthly reconciliation reports generated

NC HAI team
Identify potential data issues and notes in reconciliation reports

NC HAI team
Reports sent to facilities

Hospitals
30 days to correct data in NHSN

NC HAI team
Data downloaded, used for quarterly report
**STEP 1**

- **Hospitals** Enter data by deadline
- **NC HAI team** Data downloaded, monthly reconciliation reports generated
- **NC HAI team** Identify potential data issues and notes in reconciliation reports
- **NC HAI team** Reports sent to facilities
- **Hospitals** 30 days to correct data in NHSN
- **NC HAI team** Data downloaded, used for quarterly report
DATA SUBMISSION DEADLINES

<table>
<thead>
<tr>
<th>Surveillance Month</th>
<th>NHSN Data Entry Deadline</th>
<th>NC DPH Quarterly Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 2012</td>
<td>February 1, 2013</td>
<td>April 2013 (Jan-Dec 2012)</td>
</tr>
<tr>
<td>January 2013</td>
<td>March 20, 2013</td>
<td>July 2013 (Jan-March, 2013)</td>
</tr>
<tr>
<td>February</td>
<td>April 5, 2013</td>
<td></td>
</tr>
<tr>
<td>March</td>
<td>April 30, 2013</td>
<td>October 2013 (Jan-June, 2013)</td>
</tr>
<tr>
<td>April</td>
<td>May 31, 2013</td>
<td></td>
</tr>
<tr>
<td>May</td>
<td>July 1, 2013</td>
<td></td>
</tr>
<tr>
<td>June</td>
<td>July 31, 2013</td>
<td></td>
</tr>
<tr>
<td>July</td>
<td>August 30, 2013</td>
<td></td>
</tr>
<tr>
<td>August</td>
<td>September 30, 2013</td>
<td>January 2014 (Jan-Sept 2013)</td>
</tr>
<tr>
<td>September</td>
<td>November 1, 2013</td>
<td></td>
</tr>
<tr>
<td>October</td>
<td>November 29, 2013</td>
<td>April 2014 (Jan-Dec 2013)</td>
</tr>
<tr>
<td>November</td>
<td>January 3, 2014</td>
<td></td>
</tr>
<tr>
<td>December</td>
<td>January 31, 2014</td>
<td></td>
</tr>
</tbody>
</table>

- Note: January and February 2013 data submission deadlines extended
**STEP 2**

1. **Hospitals**
   - Enter data by deadline

2. **NC HAI team**
   - Data downloaded, monthly reconciliation reports generated

3. **NC HAI team**
   - Identify potential data issues and notes in reconciliation reports

4. **NC HAI team**
   - Reports sent to facilities

5. **Hospitals**
   - 30 days to correct data in NHSN

6. **NC HAI team**
   - Data downloaded, used for quarterly report
STEP 3

Hospitals: Enter data by deadline
NC HAI team: Data downloaded, monthly reconciliation reports generated
NC HAI team: Identify potential data issues and notes in reconciliation reports
NC HAI team: Reports sent to facilities
Hospitals: 30 days to correct data in NHSN
NC HAI team: Data downloaded, used for quarterly report
STEP 3: DATA CLEANING

- **Potential issues**
  - Programs to detect duplicate events, procedures
    - Procedures
      - Identify by same date of procedure OR
      - Same procedure duration in same (potential) patient

- **Chronology of events**
  - Programs and NHSN data entry checks

- **Missing data**
  - Visual review

- **Outliers**
  - Visual review
  - Future – program to detect data entries that are two standard deviations above mean
STEP 4

Hospitals:
- Enter data by deadline

NC HAI team:
- Data downloaded, monthly reconciliation reports generated
- Identify potential data issues and notes in reconciliation reports
- Reports sent to facilities
- 30 days to correct data in NHSN
- Data downloaded, used for quarterly report
**STEP 5**

1. **Hospitals**
   - Enter data by deadline

2. **NC HAI team**
   - Data downloaded, monthly reconciliation reports generated

3. **NC HAI team**
   - Identify potential data issues and notes in reconciliation reports

4. **NC HAI team**
   - Reports sent to facilities

5. **Hospitals**
   - 30 days to correct data in NHSN

6. **NC HAI team**
   - Data downloaded, used for quarterly report
STEP 5 - RECONCILIATION

- Hospitals
  - Make corrections in NHSN
    - Hospital users *can* change data, NC HAI team *cannot*
    - Identify and correct problems with data upload

- NC HAI team
  - Help troubleshoot data entry problems
  - Provide updated reports for review

- Why monthly?
  - Short time between submission and publication
  - More opportunities to review data
  - Time to identify and correct any large data entry/upload issues
  - By satisfying NC reporting requirements, fulfill CMS requirements
STEP 6

1. Hospitals: Enter data by deadline
2. NC HAI team: Data downloaded, monthly reconciliation reports generated
3. NC HAI team: Identify potential data issues and notes in reconciliation reports
4. NC HAI team: Reports sent to facilities
5. Hospitals: 30 days to correct data in NHSN
6. NC HAI team: Data downloaded, used for quarterly report
Goal – to help review, identify, and correct any data discrepancies between hospital data and NHSN

Welcome feedback to improve reports to make them more helpful
QUARTERLY REPORTS
## PUBLICATION SCHEDULE

<table>
<thead>
<tr>
<th>Surveillance Month</th>
<th>NHSN Data Entry Deadline</th>
<th>NC DPH Quarterly Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 2012</td>
<td>February 1, 2013</td>
<td>April 2013 (Jan-Dec 2012)</td>
</tr>
<tr>
<td>January 2013</td>
<td>March 22, 2013</td>
<td></td>
</tr>
<tr>
<td>February</td>
<td>April 1, 2013</td>
<td></td>
</tr>
<tr>
<td>March</td>
<td>April 1, 2013</td>
<td></td>
</tr>
<tr>
<td>April</td>
<td>April 1, 2013</td>
<td></td>
</tr>
<tr>
<td>May</td>
<td>July 1, 2013</td>
<td></td>
</tr>
<tr>
<td>June</td>
<td>July 31, 2013</td>
<td></td>
</tr>
<tr>
<td>July</td>
<td>August 30, 2013</td>
<td></td>
</tr>
<tr>
<td>August</td>
<td>September 30, 2013</td>
<td></td>
</tr>
<tr>
<td>September</td>
<td>November 1, 2013</td>
<td></td>
</tr>
<tr>
<td>October</td>
<td>November 29, 2013</td>
<td></td>
</tr>
<tr>
<td>November</td>
<td>January 3, 2014</td>
<td></td>
</tr>
<tr>
<td>December</td>
<td>January 31, 2014</td>
<td></td>
</tr>
</tbody>
</table>

April: Annual report
OVERVIEW OF PROCESS

<table>
<thead>
<tr>
<th>Prepare &amp; Draft</th>
<th>Review &amp; Comment</th>
<th>Finalize &amp; Publish</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC HAI team</td>
<td>Hospitals</td>
<td>NC HAI team</td>
</tr>
<tr>
<td>• Download data</td>
<td>• Share reports with hospital colleagues</td>
<td>• Incorporate comments</td>
</tr>
<tr>
<td>• Generate reports</td>
<td>• Draft hospital comment</td>
<td>• Finalize report</td>
</tr>
<tr>
<td>• Reports sent to hospitals</td>
<td>• Send to NC HAI team</td>
<td>• Publication clearance</td>
</tr>
<tr>
<td>• Draft report text</td>
<td></td>
<td>• Publish on websites</td>
</tr>
</tbody>
</table>
Data downloaded (i.e. frozen)
- No opportunities to update hospital data for publication once frozen

Data constantly changing in NHSN
- Changes incorporated in future reports
- Ensure changes made for CMS
HOSPITAL-SPECIFIC SUMMARY REPORT

- Download data
- Generate reports
- Reports sent to hospitals
- Draft report text

NC HAI team

North Carolina Healthcare-Associated Infections Report
Data from January 1 – December 31, 2012
Hospital Name, City County

2011 Hospital Survey Information

Central Line-Associated Bloodstream Infections (CLABSI)

Catheter-Associated Urinary Tract Infections (CAUTI)

Surgical Site Infections (SSI)

Hospital Commentary
REVIEW AND PROVIDE HOSPITAL COMMENTARY

- **Important to share with colleagues**
  - Infection control department, administrators

- **Hospitals can provide comments**
  - One week (5 business days) to review and send comment
  - New comment every quarter
  - Standard default comment, change when new comment submitted
  - Web address to hospital web page

- Share reports with hospital colleagues
- Draft hospital comment
- Send to NC HAI team
NC HAI team

- Incorporate comments
- Finalize report
- Publication clearance
- Publish on websites

- Takes at least 6 weeks from data download to publication

- Available on website
  - [http://epi.publichealth.nc.gov/cd/hai/figures.html](http://epi.publichealth.nc.gov/cd/hai/figures.html)
  - No current plans for printing hard copies
LONG-TERM CARE FACILITIES & INPATIENT REHABILITATION FACILITIES

- April 2013 Quarterly Report (Annual)
  - Hospital-specific summary report included
  - LTAC & IRF data not included in state aggregate summaries
  - Acute care hospitals with inpatient rehabilitation wards
    - Data included in the hospital-specific summary reports
    - Data not included in state aggregate summaries
Two versions
- Healthcare provider
  - More detail including unit/ward-specific data
- Healthcare consumer
  - Hospital-level data

Evolving documents
- Add trends over time
- Reassess baseline

Welcome feedback for improving usefulness of reports
ODDS & ENDS
Can now enter January 2013 data
- Double check all data available if entered before February 16
- Delayed data submission deadlines
  - January 2013 – March 20, 2013
  - February 2013 – April 5, 2013

Can now enter 2012 Hospital Survey
- Complete appropriate survey
  - Acute care hospital survey
  - Long-term acute care hospital survey
  - Inpatient rehabilitation facility survey

2011 Hospital Survey included in April 2013 Quarterly Report
- Delayed data entry → No time to verify data before publication
- Should not be a problem for future annual reports
Changes in data access rights if new units added

N/A Box:
- Uncheck
- If checked, NC DPH cannot access data
NC DPH GROUP: REQUESTS TO ACCESS HOSPITAL DATA

- NC DPH - HAI Team
  - Worked with hospitals to join NC DPH group
    - By joining group, granting rights to access data
  - If need access to additional data, will modify group rights template
    - When log into NHSN, alert to confer rights to NC DPH

- No additional requests to join NC DPH group
  - At present, no other NC DPH branch or unit working on healthcare associated infections

- Carefully review any requests for access to hospital data
  - When in doubt, ask (nchai@dhhs.nc.gov)
If no events for a reporting month, must complete Zero-reporting
- Reported as missing
- Alert appears first day after end of reporting month
  - If summary data entered

Complete for all HAIs

CMS Requirements webpage:
http://www.cdc.gov/nhsn/cms/index.html
Go to summary data entry screen
NC reporting requirements

- Hospitals **required** to enter all inpatient procedures
  - NHSN inpatient: “A patient whose date of admission to the healthcare facility and the date of discharge are different calendar days.”
  - From: [http://www.cdc.gov/nhsn/PDFs/pscManual/16pscKeyTerms_current.pdf](http://www.cdc.gov/nhsn/PDFs/pscManual/16pscKeyTerms_current.pdf)
- Hospitals can **choose** to enter all outpatient procedures
  - NHSN outpatient: “A patient whose date of admission to the healthcare facility and the date of discharge are the same calendar day.”
- NC only requested access to inpatient procedures; only included in monthly reconciliation reports

All SSIs to be reported

- Deep, organ space, superficial
LABORATORY IDENTIFIED
MRSA BACTEREMIA & C. DIFFICILE

- Begin reporting January 1, 2013
- Hospitals to report facility-wide inpatient
  - Acute care hospitals
  - State-operated mental health facilities
  - Specialty hospitals
  - Exceptions:
    - Critical access hospitals
    - Long-term acute care hospitals
    - Inpatient rehabilitation facilities
    - Hospitals received CMS exemption
- Data will be included in quarterly reports beginning July 2013
BASELINES FOR REPORTED SIRS

- Same as NHSN
- Hospital Compare website
- Will re-evaluate in future with more years of NC data

Many important changes to case definitions in 2013

CDC to continue to use same baselines

NC DPH
  - Continue to use current baselines through 2013
  - Explore alternative baselines
    - Example: Change in 2015, use 2013 and 2014 data
http://www.cdc.gov/nhsn/settings.html
QUESTION & ANSWER SESSION

Contact us: nchai@dhhs.nc.gov