TAP Strategy Using Data for Action: TAP Reports

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NHSN Training

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11AM
Objectives

- Introduction to the TAP Strategy
- Focus on the Targeting Step of the TAP Strategy
  - Generating TAP Reports
  - Interpreting TAP Reports
  - Comparing TAP reports
- Next Steps in TAP Reports
- TAP Strategy Resources
What is the TAP Strategy

- Targeted Assessment for Prevention (TAP) strategy
  - Uses data for action to prevent healthcare-associated infections (HAIs).
  - Targets healthcare facilities and facility units with a disproportionate burden of HAIs.

https://www.cdc.gov/hai/prevent/tap.html
- **TAP Reports**
  - Uses data within NHSN to identify facilities and locations with excess infections.
  - Translates a target SIR into a numeric HAI prevention goal, providing a concrete goal to drive action.
Assessing the Gaps in Infection Prevention Using TAP Reports

- Identify locations to target using the TAP Report
- Aim to capture awareness and perceptions among facility staff and healthcare personnel related to prevention policies and practices
- Assess potential gaps in infection control using the Facility Assessment Tools
Facility Assessment Tool: Feedback Report

### Example

#### Catheter-associated Urinary Tract Infection (CAUTI) Facility Assessment Tool—Feedback Report

<table>
<thead>
<tr>
<th>Date Range:</th>
<th>19 Q2 2015 - Q2 2016</th>
<th>Number of healthcare facility-onset CAUTIs</th>
<th>15</th>
<th>Number of predicted healthcare facility-onset CAUTIs</th>
<th>8.0</th>
<th>Facility Cumulative Attributable Difference (CAD), or the number of infections the facility would have needed to prevent to achieve an HAI reduction goal SIR of 0.75</th>
<th>1.02</th>
<th>1.00</th>
<th>0.85</th>
<th>2014 National healthcare facility-onset CAUTI SIR</th>
<th>2014 State healthcare facility-onset CAUTI SIR</th>
</tr>
</thead>
</table>

### Assessment Overview

| # Collected: | 66 |
| # Analyzed:  | 66 |
| Overall Mean Score: 38.0 out of 52, or 73% |

Note: If this report represents fewer than 30 assessments, results may not be fully representative of the awareness and perceptions of infection prevention practices among healthcare personnel. Scoring and results are for the purpose of internal quality improvement and should not be used as a method to benchmark against other units or facilities.

### Leading†

- Senior leadership, unit-level leadership, and team/group involvement in CAUTI prevention activities
- Training, competency assessments, and routine audits of proper insertion and maintenance procedures
- Ordering of urinary catheters for appropriate indications, use of alternative strategies, and use of bladder catheters prior to insertion
- Timely removal of catheters including documentation of removal date, and identification and daily review of patients with urinary catheters

### Lagging†

- Physician and Nurse Champions for CAUTI prevention activities
- Confirming adherence to appropriate policies and guidelines when receiving patients for admission
- Requirement of at least two personnel present for urinary catheter insertion
- Presence of facility leader responsible for antimicrobial stewardship activities

### Selected Deep Dives – Top Opportunities for Improvement *

#### I. General Infrastructure

- Nurse champion for CAUTI prevention activities
- Order provided in ED prior to insertion of an indwelling urinary catheter
- Requirement of at least two personnel present for urinary catheter insertion
- Use of pre-connected, sealed urinary catheter drainage systems
- Daily review of patients with urinary catheters for continued need
- Ordering of urinary cultures only on patients with signs or symptoms of a urinary tract infection

#### II. Appropriate Indications for Insertion

- Feedback of CAUTI rates and/or standardised infection ratios (SIR)
- Documentation of an indication when urinary catheters are ordered by ED providers
- Personal keep the urinary drainage system closed to maintain sterility
- Use of alerts, reminders, or stop orders for urinary catheter removal
- Removal of urinary catheters by nurses, if nurse-directed protocol in place


* Items displayed are based on questions with a frequency of >75%: Yes or >75% for the sum of Often + Always
† Items displayed are based on questions with a frequency of >33%: Unknown, >50% No, or >50% for the sum of Never + Rarely + Sometimes + Unknown
‡ Items displayed are based on questions within each domain with a frequency of >33%: Unknown, >50% No, or >50% for the sum of Never + Rarely + Sometimes + Unknown
Implementing Infection Prevention Strategies

- Data from TAP Reports and facility assessment results from feedback reports used to targeted hospitals/units.
- Implement strategies to address gaps and reduce infection rates
- Evaluate for improvement
TAP Implementation Guide

Contains actionable resources from partners that can be used to address the identified gaps in infection prevention.
TAP Tools Working Together

- Combining the results of the TAP report with Assessment Tools and the Implementation Guide allows facilities to identify and utilize evidence-based infection prevention methods that most directly meet their needs.

1. TAP Report
2. Feedback Report
3. Partner Resource

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**TAP Report**

<table>
<thead>
<tr>
<th>Facility Org ID</th>
<th>Facility Name</th>
<th>Facility CAD</th>
<th>Location Rank</th>
<th>Location</th>
<th>CDC Location</th>
<th>Events</th>
<th>Urine</th>
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</thead>
<tbody>
<tr>
<td>10000</td>
<td>DHQP Memorial Hospital</td>
<td>10.78</td>
<td>ICU</td>
<td>IN, ACUTE CC, M</td>
<td>1</td>
<td>2</td>
<td>STEP1</td>
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</tbody>
</table>

**Feedback Report**

- Nurse champion for CAUTI prevention activities
- Feedback of CAUTI rates and/or standardized infection ratios (SIR)

**Partner Resource**

CAUTI Implementation Guide: Links to Resources

Disclaimer: The links in the domains below are not mutually exclusive nor do they represent. Furthermore, the links presented do not constitute an endorsement of these organizations related to CAUTI prevention from the CDC or the National Healthcare Safety Network.

See also the CDC Guidelines for Preventing Healthcare-Associated Infections.
The Targeted Assessment for Prevention (TAP) Strategy

For questions pertaining to the TAP Strategy and the accompanying TAP tools, please contact HAIPrevention@cdc.gov
TAP Reports bring together data elements from various data sources within NHSN:
- Annual Surveys
- SIRs
- Event-level Information (CLABSI, CAUTI, and CDI only)

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>CLABSI</th>
<th>CAUTI</th>
<th>CDI LabID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Care Hospital</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Long Term Acute Care Hospital</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Inpatient Rehab Facility</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>
Standardized Infection Ratio (SIR)

- The SIR is a measure that compares the number of HAIs reported to NHSN to the number of infections that would be predicted based on national baseline data:

  \[
  \text{SIR} = \frac{\text{Observed # HAIs}}{\text{Predicted # HAIs}}
  \]

- **SIR interpretation:**
  - 1 = same number of infections reported as would be predicted given the US baseline data
  - Greater than 1 = more infections reported than what would be predicted given the US baseline data
  - Less than 1 = fewer infections reported than what would be predicted given the US baseline data
Standardized Infection Ratio (SIR)

- The standardized infection ratio (SIR) is a summary measure used to track HAIs at a national, state, or local level over time.
- SIR compares the observed number of HAIs reported to what would be predicted, given the standard population.
Cumulative Attributable Difference (CAD)

- CAD is a measure that shows the difference between the number of observed infections and ‘predicted infections multiplied by a SIR goal’ in a defined period.

  \[
  \text{CAD} = \text{Observed } \# \text{ HAIs} - (\text{Predicted } \# \text{ HAIs} \times \text{SIR goal})
  \]

- SIR goal represents an HAI Reduction Goal.
  - Therefore, should always be less than 1.

- Unlike SIR, CAD is calculated even if the predicted number of events is less than 1.
### National Reduction Targets


<table>
<thead>
<tr>
<th>Measure</th>
<th>Original target for 2013 (from original baseline)</th>
<th>Progress made by 2014</th>
<th>2020 Target (from 2015 baseline)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLABSI</td>
<td>50%</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>CAUTI</td>
<td>25%</td>
<td>No Change</td>
<td>25%</td>
</tr>
<tr>
<td>CDI</td>
<td>30%</td>
<td>8% reduction</td>
<td>30%</td>
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</tbody>
</table>
### CAD and the HAI Reduction Goal

- CAD = Observed – (Predicted × SIR\textsubscript{goal})
- SIR\textsubscript{goal} represents an “HAI Reduction Goal”
  - HHS 50% reduction goal for CLABSI \(\rightarrow\) SIR = 0.50

#### Facility A: Observed=30, Predicted=30, SIR=1.0 in 2016

<table>
<thead>
<tr>
<th>HHS Reduction Goal (Reduction in Reported)</th>
<th>SIR</th>
<th>CAD Formula</th>
<th>CAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>1.0</td>
<td>Observed – (Predicted × SIR\textsubscript{goal})</td>
<td>0</td>
</tr>
<tr>
<td>50% HHS Reduction Goal</td>
<td>0.50</td>
<td>30 – (30 × 0.50)</td>
<td>15</td>
</tr>
<tr>
<td>75%</td>
<td>0.25</td>
<td>30 – (30 × 0.25)</td>
<td>22.5</td>
</tr>
</tbody>
</table>
Which of the following SIR goals results in a higher prevention goal?

A. 0.25  
B. 0.50  
C. 0.75  
D. 1  
E. 1.5  

The lower the SIR goal, the higher the Prevention goal will be.
Cumulative Attributable Difference (CAD)

- CAD Interpretation:
  - Positive CAD = additional burden of infections than what would be predicted with regard to a SIR goal ("excess" infections).
  - Negative CAD = fewer infections than what would be predicted

\[
\text{CAD} = \text{Observed # HAIs} - (\text{Predicted # HAIs} \times \text{SIR goal})
\]

<table>
<thead>
<tr>
<th>CAD</th>
<th>Observed</th>
<th>Predicted</th>
<th>SIR goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>30</td>
<td>30</td>
<td>0.5</td>
</tr>
</tbody>
</table>
Given a facility SIR of 0.99, the locations in this facility have
___________?

A. More infections than predicted. The facility needs to improve its prevention efforts.
B. Less infections than predicted. The facility’s prevention efforts have been successful.
C. The same number of infections as predicted.
D. Not enough information

Location-specific CAD values can unmask and target efforts at specific locations that may have a disproportionate burden of infections that are not captured in the facility SIR.
## CAD at the Location Level

<table>
<thead>
<tr>
<th>Facility</th>
<th>Observed # HAIs</th>
<th>Predicted # HAIs</th>
<th>SIR</th>
<th>SIR Goal</th>
<th>CAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ward</td>
<td>30</td>
<td>20</td>
<td>1.5</td>
<td>0.50</td>
<td>20</td>
</tr>
<tr>
<td>ICU</td>
<td>0</td>
<td>10</td>
<td>0</td>
<td>0.50</td>
<td>-5</td>
</tr>
<tr>
<td>Facility</td>
<td>30</td>
<td>30</td>
<td>1.0</td>
<td>0.50</td>
<td>15</td>
</tr>
</tbody>
</table>

\[
\text{Observed } \# \text{ HAIs} - (\text{Predicted } \# \text{ HAIs} \times \text{SIR Goal}) = \text{CAD}
\]
CAD versus SIR

- CAD is not a comparison metric for performance measurement like SIR
  - CAD detects burden of infection

<table>
<thead>
<tr>
<th></th>
<th>Facility A</th>
<th>Facility B</th>
<th>Facility C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observed no.</td>
<td>30</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Predicted no.</td>
<td>10</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>SIR</td>
<td>3</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>CAD [Observed – (Predicted x 1.0)]</td>
<td>20</td>
<td>2</td>
<td>9</td>
</tr>
</tbody>
</table>
Summary

 Beginning with the TAP Report and CAD metric, the TAP Strategy efficiently prioritizes healthcare facilities (and locations within a facility) that need enhanced prevention intervention to maximize the impact of given resources.

 CAD is a flexible measure that can be applied by individual hospitals as part of their internal quality improvement efforts and by groups such as state health departments, quality improvement organizations, and hospital systems.

 CAD is a not a comparative metric!
Generating TAP Reports
Helpful Hints for Running TAP Reports

- TAP reports are built on the rules that influence SIRs.
- Ensure that locations are mapped correctly: [https://www.cdc.gov/nhsn/pdfs/pscmanual/15locationsdescriptions_current.pdf](https://www.cdc.gov/nhsn/pdfs/pscmanual/15locationsdescriptions_current.pdf).
- Verify that an up-to-date data set was generated.
- Use Time Periods of at least 1 quarter.
- Remember to look at the footnotes!
The TAP Reports for All HAI Types utilize 2015 baseline data.

Analyze all data dated from January 2015 forward.

Data from earlier time periods (before Jan 2015) must be analyzed using the original baseline models.
TAP Reports

- Baseline Set 1 data sets are still available within NHSN.
- Analyze all data dated through December 31, 2016.
- Data representing a later time period (i.e., after December 2016) must be analyzed using the new 2015 rebaseline models.
Running TAP Reports

- For each facility type, choose to either Run or Modify a TAP Report for the available HAI type:
  - Select Modify to customize TAP Report:
    - Title/Format
    - Time period of interest
    - SIR Goal
Running TAP Reports

- Title/Format Tab
  - Select “Show descriptive variable names” - variable labels will provide more descriptive column headers.
  - Default output format is HTML.
  - If another format, (e.g., pdf) is selected, change the orientation to “Landscape”.

![Title/Format Tab Image](image-url)
Running TAP Reports

- Generate a report for a time period (at least 1 quarter is best).
Running TAP Reports

- SIR Goal
  - Default NHSN goals are based on HHS 5 – Year HAI Reduction targets:
    - CAUTI SIRgoal : 0.75
    - CDI SIRgoal : 0.70
    - CLABSII SIRgoal: 0.50
  - National SIRs
    - Will be added to NHSN when the current national SIRs become available
  - Custom SIR Goals
    - Must be <1
Interpreting TAP Reports
### Facility TAP Report - CLABSI

<table>
<thead>
<tr>
<th>Facility Org ID</th>
<th>Facility Name</th>
<th>Location Rank</th>
<th>Location</th>
<th>CDC Location</th>
<th>Events</th>
<th>Central Line Days</th>
<th>DUR %</th>
<th>CAD</th>
<th>SIR Test</th>
<th>No. Pathogens</th>
</tr>
</thead>
<tbody>
<tr>
<td>10000</td>
<td>DHQP Memorial Hospital</td>
<td>20.52</td>
<td>1 West</td>
<td>IN:ACUTE:WARD:M</td>
<td>14</td>
<td>2269</td>
<td>49</td>
<td>13.10</td>
<td>7.81</td>
<td>17 (2, 3, 0, 5, 5, 0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 West</td>
<td>IN:ACUTE:WARD:M</td>
<td>4</td>
<td>1349</td>
<td>42</td>
<td>3.40</td>
<td>3.34</td>
<td>4 (0, 2, 0, 1, 1, 0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SICU</td>
<td>IN:ACUTE:CC:S</td>
<td>3</td>
<td>1062</td>
<td>9</td>
<td>2.58</td>
<td></td>
<td>2 (0, 0, 0, 0, 0, 0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5 West</td>
<td>IN:ACUTE:WARD:M</td>
<td>2</td>
<td>983</td>
<td>9</td>
<td>1.61</td>
<td></td>
<td>2 (0, 0, 0, 2, 0, 0)</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>STEP2</td>
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<td>1</td>
<td>1007</td>
<td>32</td>
<td>0.55</td>
<td></td>
<td>1 (0, 1, 0, 0, 0, 0)</td>
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<td></td>
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<td></td>
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<td>1233</td>
<td>50</td>
<td>-0.49</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Acute Care Hospital units designated as IRFs can be found in the IRF TAP Report.
Facility TAP Report - CLABSI

National Healthcare Safety Network
TAP Report for CLABSI Data for Acute Care and Critical Access Hospitals (2015 Baseline)
Locations Ranked by CAD Within a Facility
SIR Goal: HHS Goal = 0.5

A TAP Report is the first step in the CDC TAP Strategy. For more information on the TAP Strategy, please visit: http://www.cdc.gov/hai/prevent/tap.html
As of February 16, 2017 at 2:00 PM
Date Range: BS2_CLAB_TAP

<table>
<thead>
<tr>
<th>Facility Org ID</th>
<th>Facility Name</th>
<th>Facility CAD</th>
<th>Location Rank</th>
<th>Location</th>
<th>CDC Location</th>
<th>Events</th>
<th>Central Line Days</th>
<th>DUR %</th>
<th>CAD</th>
<th>SIR</th>
<th>SIR Test</th>
<th>No. Pathogens</th>
</tr>
</thead>
<tbody>
<tr>
<td>10000</td>
<td>DHQP Memorial Hospital</td>
<td>20.52</td>
<td>1</td>
<td>1 West</td>
<td>IN:ACUTE:WARD:M</td>
<td>14</td>
<td>2269</td>
<td>49</td>
<td>13.10</td>
<td>7.81</td>
<td>17 (2, 3, 0, 5, 5, 0)</td>
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<td></td>
<td></td>
<td></td>
<td>2</td>
<td>2 West</td>
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<td>4</td>
<td>1349</td>
<td>42</td>
<td>3.40</td>
<td>3.34</td>
<td>4 (0, 2, 0, 1, 1, 0)</td>
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<td>SICU</td>
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<td>50</td>
<td>-0.49</td>
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<td></td>
</tr>
</tbody>
</table>

The Facility CAD indicates how many infections this hospital would have had to prevent to reach its goal.
This facility could dramatically decrease its number of events by targeting infection prevention in which location?

<table>
<thead>
<tr>
<th>Facility Name</th>
<th>Facility CAD</th>
<th>Location Rank</th>
<th>Location</th>
<th>CDC Location</th>
<th>Events</th>
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<th>DUR %</th>
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<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5</td>
<td>STEP2</td>
<td>IN:ACUTE:STEP</td>
<td>1</td>
<td>1007</td>
<td>32</td>
<td>0.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>6</td>
<td>CCU</td>
<td>IN:ACUTE:CC:C</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A. **1 West**  
B. 2 West  
C. SICU  
D. 5 West

Answer A. Location 1 West is ranked #1 for this facility. It accounts for more than half of the hospital’s excess infection.
The CAD for each location indicates how many infections that particular unit would have had to prevent to reach its goal.
# Example TAP Report Outputs For Group Users

**Table 1 – Totals for all Facilities in Group**

<table>
<thead>
<tr>
<th>Number of Facilities</th>
<th>Number of Beds</th>
<th>Location (LC)</th>
<th>Events (LC)</th>
<th>Device Days (LC)</th>
<th>DUR % (LC)</th>
<th>CAD (LC)</th>
<th>SIR (LC)</th>
<th>SIR Test</th>
<th>ICU No. Pathogens (CNS,YS,SA,ES,KS,EC)</th>
<th>NICU No. Pathogens (CNS,YS,SA,ES,KS,EC)</th>
<th>Ward+ No. Pathogens (CNS,YS,SA,ES,KS,EC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>2,420</td>
<td>67 (15, 6, 66)</td>
<td>44 (17, 0, 27)</td>
<td>60186 (20966, 599, 38651)</td>
<td>17 (45, 7, 13)</td>
<td>19 (7.5, -0.3, 11.8)</td>
<td>0.9 (0.9, 0.9, 0.9)</td>
<td>19 (2, 8, 0, 2, 1, 0)</td>
<td>0 (0, 0, 0, 0, 0, 0)</td>
<td>28 (4, 8, 4, 1, 2, 1)</td>
<td></td>
</tr>
</tbody>
</table>

1. This report includes CLABSI data for 2015 and forward. Following the 2015 rebaseline, *Mucosal Barrier Injury Laboratory-Confirmed Bloodstream Infections* (MBI-LCBI) are excluded from CLABSI rates, SIRs and TAP reports.
2. If location-level CADs are the same in a given facility, their ranks are tied.
3. (CNS,YS,SA,ES,KS,EC) = No. of CNS, Yeast (both candida and non-candida species), Staph aureus, Enterococcus species, K. pneumoniae/K. oxytoca, E. coli
4. SIR is set to '.' when predicted number of events is <1.0.
5. LOCATION CAD = (OBSERVED LOCATION - PREDICTED LOCATION) * SELECTED SIR Goal
6. SIR TEST = ‘SIG’ means SIR > SIR Goal significantly

Source of aggregate data: 2015 HHEN CLABSI Data
Data contained in this report were last generated on February 14, 2017 at 10:57 AM.
Example TAP Report Outputs For Group Users

- Location Category, abbreviated as (LC), gives a breakdown of the different types of locations contributing to the total in the following order: ICU, NICU, Ward+

- For CAUTI, there are only 2 Location Categories: ICU, Ward+.
Example TAP Report Outputs For Group Users

<table>
<thead>
<tr>
<th>Number of Facilities</th>
<th>Number of Beds</th>
<th>Location (LC)</th>
<th>Events (LC)</th>
<th>Device Days (LC)</th>
<th>DUR % (LC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>2,420</td>
<td>87 (15, 6, 66)</td>
<td>44 (17, 0, 27)</td>
<td>60186 (20966, 569, 38651)</td>
<td>17 (45, 7, 13)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>19 (7.5, -0.3, 11.8)</td>
<td>0.9 (0.9, , 0.9)</td>
<td>19 (2, 8, 0, 2, 1, 0)</td>
<td>0 (0, 0, 0, 0, 0, 0)</td>
<td>28 (4, 8, 4, 1, 2, 1)</td>
<td></td>
</tr>
</tbody>
</table>

- Number of common pathogens identified for each location.
- Pathogen list can be found in the footnotes.
- The Pathogen columns for each location category are in the same order as they are listed in parenthesis for the preceding columns.
Table 2 – Facilities Within the Group Ranked by CAD

<table>
<thead>
<tr>
<th>facRank</th>
<th>name</th>
<th>state</th>
<th>medType</th>
<th>numBeds</th>
<th>numLoc</th>
<th>numEvent</th>
<th>facDDays</th>
<th>facDUR</th>
<th>facCADloctype</th>
<th>facSIR</th>
<th>SIRGoal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DHQP Memorial Hospital</td>
<td>GA</td>
<td>M</td>
<td>67/27</td>
<td>80/67</td>
<td>17/16</td>
<td>112962</td>
<td>49/27</td>
<td>0.4360</td>
<td>100/100</td>
<td>0.50</td>
</tr>
<tr>
<td>2</td>
<td>DHQP Memorial Annex</td>
<td>GA</td>
<td>M</td>
<td>80/31</td>
<td>62/47</td>
<td>123/123</td>
<td>99541</td>
<td>47/24</td>
<td>0.3636</td>
<td>69/1/1</td>
<td>0.50</td>
</tr>
<tr>
<td>3</td>
<td>Duked Region Life Center</td>
<td>IL</td>
<td>M</td>
<td>104/33</td>
<td>97/11</td>
<td>115/115</td>
<td>105795</td>
<td>47/24</td>
<td>0.4360</td>
<td>100/100</td>
<td>0.50</td>
</tr>
<tr>
<td>4</td>
<td>CDIC Health Hospital</td>
<td>GA</td>
<td>M</td>
<td>357/20</td>
<td>34/25</td>
<td>61/22</td>
<td>22527</td>
<td>47/24</td>
<td>0.4360</td>
<td>100/100</td>
<td>0.50</td>
</tr>
<tr>
<td>5</td>
<td>Weiner Center of Medicine</td>
<td>CA</td>
<td>M</td>
<td>53/20</td>
<td>22/25</td>
<td>52/22</td>
<td>20574</td>
<td>47/24</td>
<td>0.4360</td>
<td>100/100</td>
<td>0.50</td>
</tr>
<tr>
<td>6</td>
<td>Anderson Medical Center</td>
<td>LA</td>
<td>M</td>
<td>361/19</td>
<td>34/25</td>
<td>52/22</td>
<td>25796</td>
<td>47/24</td>
<td>0.4360</td>
<td>100/100</td>
<td>0.50</td>
</tr>
<tr>
<td>7</td>
<td>Falcon Memorial Hospital</td>
<td>GA</td>
<td>M</td>
<td>457/19</td>
<td>34/25</td>
<td>79/18</td>
<td>75493</td>
<td>47/24</td>
<td>0.4360</td>
<td>100/100</td>
<td>0.50</td>
</tr>
<tr>
<td>8</td>
<td>All Saints Medical</td>
<td>LA</td>
<td>M</td>
<td>281/9</td>
<td>34/25</td>
<td>47/9</td>
<td>16691</td>
<td>47/24</td>
<td>0.4360</td>
<td>100/100</td>
<td>0.50</td>
</tr>
<tr>
<td>9</td>
<td>Louisiana Hospital of Texas</td>
<td>TX</td>
<td>M</td>
<td>595/25</td>
<td>34/25</td>
<td>62/12</td>
<td>40057</td>
<td>47/24</td>
<td>0.4360</td>
<td>100/100</td>
<td>0.50</td>
</tr>
<tr>
<td>10</td>
<td>Georgia Hospital of Louisiana</td>
<td>LA</td>
<td>G</td>
<td>355/25</td>
<td>34/25</td>
<td>17/7</td>
<td>16936</td>
<td>47/24</td>
<td>0.4360</td>
<td>100/100</td>
<td>0.50</td>
</tr>
</tbody>
</table>

1. This report includes CLABSI data for 2015 and forward. Following the 2015 rebaseline, Nuccor Barrier Injury Laboratory-Confirmed Bloodstream Infections (ABHI-LCB) are excluded from CLABSI rates, SIRs, and TAP reports.
2. If location-level CADs are the same in a given facility, their ranks are tied.
3. (CHS,YS,S,AES,K,S,SC) = No. of CHS, Yeast (both candida and non-candida species), Staph aureus, Enterococcus species, K. pneumoniae/K. oxytoca, E. coli
4. SIR is set to 1, when predicted number of events is <1.0.
5. LOCATION CAD = (OBSERVED_LOCATION - PREDICTED_LOCATION) SELECTED SIR Goal
6. SIR TEST = SIG means SIR > SIR Goal significantly
Source of aggregate data: 2015 NHDB CLABSI Data
Data contained in this report were last generated on January 19, 2017 at 12:17 PM.
Example TAP Report Outputs For Group Users

TABLE 3 – Locations Ranked by CAD Within a Facility

<table>
<thead>
<tr>
<th>Facility Rank</th>
<th>Facility Org ID</th>
<th>Facility Name</th>
<th>Facility CAD</th>
<th>Location Rank</th>
<th>Location</th>
<th>CDC Location</th>
<th>Events</th>
<th>Central Line Days</th>
<th>DUR %</th>
<th>CAD</th>
<th>SIR Test</th>
<th>No. Pathogens</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10000</td>
<td>CHQP Memorial Hospital</td>
<td>6.35</td>
<td>0</td>
<td>DP WARD</td>
<td>IN ACUTE:WARD</td>
<td>0</td>
<td>56</td>
<td>2.6</td>
<td>3</td>
<td>1, 0, 0, 0, 0, 0</td>
<td></td>
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<td>STEP1</td>
<td>3</td>
<td>1129</td>
<td>11</td>
<td>2.4</td>
<td>3</td>
<td>1</td>
<td>2.6</td>
<td>3</td>
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</tr>
<tr>
<td>2</td>
<td></td>
<td>2W</td>
<td>2</td>
<td>1312</td>
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<td>1.3</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
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<td>5973</td>
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<td>4</td>
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<td></td>
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</tr>
<tr>
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<tr>
<td>5</td>
<td></td>
<td>1E</td>
<td>1</td>
<td>402</td>
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<td>0.8</td>
<td>2</td>
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<td></td>
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</tr>
<tr>
<td>6</td>
<td></td>
<td>2E</td>
<td>0</td>
<td>402</td>
<td>14</td>
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<tr>
<td>7</td>
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<td>564</td>
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<td>1</td>
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<td></td>
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</tr>
<tr>
<td>2</td>
<td>10407</td>
<td>CHQP Memorial Annex</td>
<td>5.35</td>
<td>3</td>
<td>CU</td>
<td>IN ACUTE:CM</td>
<td>3</td>
<td>2181</td>
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<td>1</td>
<td>1, 0, 0, 0, 0, 0</td>
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</tr>
<tr>
<td>1</td>
<td></td>
<td>2West</td>
<td>2</td>
<td>654</td>
<td>6</td>
<td>1.8</td>
<td>2</td>
<td>0, 0, 1, 0, 0, 0</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>3</td>
<td></td>
<td>5West</td>
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<td>382</td>
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<td>0.8</td>
<td>1</td>
<td>0, 0, 0, 0, 0, 0</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>CU4</td>
<td>2</td>
<td>2932</td>
<td>60</td>
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<td>2</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td></td>
<td>CU3</td>
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<td>0.8</td>
<td>1</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>7East</td>
<td>1</td>
<td>1159</td>
<td>14</td>
<td>0.6</td>
<td>1</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>5West</td>
<td>1</td>
<td>2194</td>
<td>21</td>
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<td>0, 0, 0, 0, 0, 0</td>
<td></td>
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</tr>
</tbody>
</table>
Facility TAP Report – CDI LabID

National Healthcare Safety Network
TAP Report for FACWIDEIN CDI LabID data for Acute Care and Critical Access Hospitals (2015 Baseline)
Facilities Ranked by CAD 'Cumulative Attributable Difference'

Facility CAD

COHCFA Prevalence – allow facilities and groups to see a rate for those CDI events that are potentially associated with a previous stay in that hospital.

- CO event from a patient discharged from the facility ≤4 weeks earlier

Data is only applicable at the FACWIDEIN level
Given a facility CAD of 22.48, how many events would this facility needed to have prevented to reach its SIR goal

A. 22
B. 22.48
C. 23
D. 61
E. 55.038

22.48 is the amount of excess infections. To reach the preventive goal, the facility would have to prevent 23 infections since you can’t prevent 0.48\textsuperscript{th} of an infection
## Comparing TAP Report Results

<table>
<thead>
<tr>
<th>Facility – TAP Reports</th>
<th>Group – TAP Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tables in Report</td>
</tr>
<tr>
<td>All data entered into NHSN by the facility</td>
<td>Data Included</td>
</tr>
<tr>
<td>No</td>
<td>Facility Ranking</td>
</tr>
<tr>
<td>Yes</td>
<td>Location Ranking</td>
</tr>
<tr>
<td>Yes</td>
<td>Select SIR goal</td>
</tr>
</tbody>
</table>
## Comparing TAP Report Results

### National Healthcare Safety Network


**Locations Ranked by CAD Within a Facility**

**SIR Goal: HHS Goal = 0.5**

A TAP Report is the first step in the CDC TAP Strategy. For more information on the TAP Strategy, please visit: http://www.cdc.gov/hai/prevent/tap.html

As of February 7, 2017 at 2:00 PM

**Date Range: BS2_CLAB_TAP summaryYr:2016 to 2016**

<table>
<thead>
<tr>
<th>Facility Rank</th>
<th>Facility Org ID</th>
<th>Facility Name</th>
<th>Facility CAD</th>
<th>Location Rank</th>
<th>Location</th>
<th>CDC Location</th>
<th>Events</th>
<th>Central Line Days</th>
<th>DUR %</th>
<th>CAD</th>
<th>SIR</th>
<th>No. Pathogens</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10401</td>
<td>DHQP Memorial Annex</td>
<td>7.31</td>
<td>1</td>
<td>6E</td>
<td>IN:ACUTE:WARD:M</td>
<td>5</td>
<td>400</td>
<td>14</td>
<td>4.62</td>
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<td>0, 0, 0, 0, 0, 0, 0</td>
</tr>
<tr>
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<td>10000</td>
<td>DHQP Memorial Hospital</td>
<td>5.66</td>
<td>1</td>
<td>5G</td>
<td>IN:ACUTE:CC:C</td>
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<td>125</td>
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<td>4.88</td>
<td>5</td>
<td>0, 1, 1, 0, 0, 0</td>
</tr>
<tr>
<td>3</td>
<td>10587</td>
<td>CDC Health Hospital</td>
<td>2.17</td>
<td>1</td>
<td>BURN</td>
<td>IN:ACUTE:CC:B</td>
<td>2</td>
<td>212</td>
<td>52</td>
<td>1.42</td>
<td>2</td>
<td>1, 0, 0, 0, 1, 1</td>
</tr>
</tbody>
</table>

**Notes:**

- **Facility Rank:** Indicates the rank of the facility based on the number of Central Line Days.
- **Location Rank:** Indicates the rank of the location within the facility.
- **CDC Location:** Indicates the type of location within the hospital.
- **Events:** Number of infections reported.
- **Central Line Days:** Total days with central lines.
- **DUR %:** Daily Use Rate percentage.
- **CAD:** Central Line Days.
- **SIR:** Specific Infection Rate.
- **No. Pathogens:** Number of pathogens identified.
# Comparing TAP Report Results

## National Healthcare Safety Network


**Locations Ranked by CAD Within a Facility**

**SIR Goal: HHS Goal = 0.2**

A TAP Report is the first step in the CDC TAP Strategy. For more information on the TAP Strategy, please visit: http://www.cdc.gov/hai/prevent/tap.html

As of February 16, 2017 at 2:00 PM

Date Range: BS2_CLAB_TAP

### FACILITY

<table>
<thead>
<tr>
<th>Facility Org ID</th>
<th>Facility Name</th>
<th>Facility CAD</th>
<th>Location Rank</th>
<th>Location</th>
<th>CDC Location</th>
<th>Events</th>
<th>Central Line Days</th>
<th>DUR %</th>
<th>CAD</th>
<th>SIR</th>
<th>SIR Test</th>
<th>No. Pathogens</th>
</tr>
</thead>
<tbody>
<tr>
<td>10000</td>
<td>DhQP Memorial Hospital</td>
<td>33.95</td>
<td></td>
<td>ICU</td>
<td>IN.ACU.T ICU:MS</td>
<td>10</td>
<td>350</td>
<td>55.8</td>
<td>6.9</td>
<td>5.90</td>
<td>10 (0, 0, 2, 0, 0, 0)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>ICU</td>
<td>54.99</td>
<td></td>
<td>ICU</td>
<td>IN.ACU.T ICU:MS</td>
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<td>1076</td>
<td>35</td>
<td>8.26</td>
<td>2.00</td>
<td>8 (2, 0, 1, 0, 0, 1)</td>
<td></td>
</tr>
<tr>
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<td>HSCT</td>
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<td></td>
<td>ONC_HSC</td>
<td>IN.ACU.T ONC_HSC</td>
<td>5</td>
<td>125</td>
<td>8</td>
<td>4.88</td>
<td></td>
<td>5 (0, 1, 1, 0, 0, 0)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>MICU</td>
<td>52.44</td>
<td></td>
<td>CC_M</td>
<td>IN.ACU.T CC_M</td>
<td>4</td>
<td>3700</td>
<td>69</td>
<td>2.59</td>
<td></td>
<td>4 (1, 0, 0, 1, 0, 0)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>CC_M</td>
<td>54.99</td>
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1. This report includes CLABSI data for 2015 and forward. Following the 2015 rebaseline, Mucosal Barrier Injury Laboratory-Confirmed Bloodstream Infections (MBI-LCI) are excluded from CLABSI rates, SIRs and TAP reports.
2. If location-level CADs are the same in a given facility, their ranks are tied.
3. (CSS, SS, ES, KS, EC) = No. of CNS, Yeast (both candida and non-candida species), Staph aureus, Enterococcus species, K. pneumoniae/K. oxytoca, E. coli
4. SIR is set to `.` when predicted number of events is < 1.0.
5. LOCATION CAD = (OBSERVED LOCATION - PREDICTED LOCATION) SELECTED SIR Goal
6. SIR TEST = `.0` means SIR > SIR Goal significantly

Source of aggregate data: 2015 NSHS CLABSI Data

Data contained in this report were last generated on January 19, 2017 at 12:17 PM.
What’s Next in NHSN!

- TAP Dashboard coming soon to NHSN!
TAP Strategy ‘How To’ Guide

- Running TAP Reports
- Interpreting TAP Reports
- Communicating TAP Report Data
- Assessing the Gaps
- Implementing Infection Prevention Strategies

https://www.cdc.gov/hai/pdfs/prevent/tap-guide-for-individual-facility-user.pdf
TAP Strategy Resources

- TAP FAQs: http://www.cdc.gov/hai/prevent/tap.html
- Journal article by Soe et al. published in *Infection Control & Hospital Epidemiology* describing the cumulative attributable difference (CAD) metric.
TAP Strategy Resources


- Help with the TAP Strategy: email HAIPrevention@cdc.gov
- Help with TAP Reports: email NHSN@cdc.gov
The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.