National Healthcare Safety Network (NHSN)

WHAT YOU SHOULD KNOW

Disclosures

I have nothing to disclose

What is NHSN?

Nation's most widely used healthcare-associated infection tracking system

NHSN provides medical facilities, state, regions and the nation with data collection and reporting capabilities needed to:

- Identify infection prevention problems by facility, state, or specific quality improvement project
- Benchmark progress of infection prevention efforts
- Comply with state and federal public reporting mandates
- Ultimately, drive national progress toward elimination of HAIs

NHSN HAI Types

Healthcare facilities may report the following HAI types into NHSN:

- Central line associated bloodstream infections (CLABSI)
- Catheter-associated urinary tract infections (CAUTI)
- Surgical Site Infections (SSI)
  - COLO
  - HYST
  - HPRO
  - KPRO
- Hospital-onset *Clostridioides difficile* (C. difficile/CDI)
- Hospital-onset methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia (bloodstream infections)
- Ventilator-associated events (VAE)

Reporting Reminders

Always refer to the protocol!

For NHSN reporting, surveillance definitions “trump” clinical judgement

- Clinical diagnoses are important for treatment of individual patients
- Surveillance definitions are important in identifying trends within a population
- Needed to ensure accuracy, completeness and comparability of infection information

Concerns should be sent to nhsn@cdc.gov instead of not reporting or facility adjudication

CMS Reporting Requirements

CMS Reporting Program	HAI Event	Reporting Specifications	Reporting Start Date
Hospital Inpatient Quality Reporting (IQR) Program	CLABSI	Adult, Pediatric, and Neonatal ICUs	January 2011
	CAUTI	Adult and Pediatric ICUs	January 2012
	SSI: COLO	Inpatient COLO Procedures	January 2012
	SSI: HYST	Inpatient HYST Procedures	January 2012
	MRSA Bacteremia LabID Event	FacWideIN	January 2013
	C. difficile LabID Event	FacWideIN	January 2013
	Healthcare Personnel Influenza Vaccination	All Inpatient Healthcare Personnel	January 2013
	Medicare Beneficiary Number	All Medicare Patients Reported into NHSN	July 2014
	CLABSI	Adult & Pediatric Medical, Surgical, & Medical/Surgical Wards	January 2015
	CAUTI	Adult & Pediatric Medical, Surgical, & Medical/Surgical Wards	January 2015
Hospital Outpatient Quality Reporting (OQR) Program	*Healthcare Personnel Influenza Vaccination*	*As of October 1, 2018, OQR no longer requires hospital outpatient departments to submit Healthcare Personnel Influenza Vaccination event data*	*October 2014*

Update User Information in NHSN

- Be sure to keep FACADMIN and Patient Safety Coordinator contact information up to date in NHSN
- If FACADMIN is not changed prior to turnover, more difficult process
- SHARP Unit uses this information for contact information for facilities in our group
- It is best to have multiple users enrolled in NHSN per facility
  - Ensures there is no lapse on reporting in the event of staff changes

Surveillance Definitions

Identifying HAIs for NHSN Surveillance

7-day Infection Window Period (IWP)

- Defined as the 7-days during which all site-specific infection criteria must be met. It includes the collection date of the first positive diagnostic test that is used as an element to meet the site-specific infection criterion, the 3 calendar days before and the 3 calendar days after

Infection Window Period	
	3 days before
Date of first positive diagnostic test that is used as an element of the site-specific criterion **OR** **In the absence of a diagnostic test, use the date of the first documented localized sign or symptom that is used as an element of the site-specific criterion**	
	3 days after

Date of Event (DOE)

- The date the first element used to meet an NHSN site-specific infection criterion occurs for the first time within the seven-day infection window period

Example 1

HOSPITAL DAY	INFECTION WINDOW PERIOD
1	
2 Date of Event	Fever > 38.0 C
3	
4	**Urine culture:** >100,000 CFU/ ml *E. coli*
5	
6	
7	

Example 2

HOSPITAL DAY	INFECTION WINDOW PERIOD
1	
2	
3	
4 Date of Event	**Urine culture:** >100,000 CFU/ml *E. coli*
5	Fever > 38.0 C
6	Fever > 38.0 C
7	

*Not applicable to SSI, LabID or VAE surveillance

POA vs HAI

An infection is considered **Present on Admission (POA)** if the date of event of the NHSN site-specific infection criterion occurs during the POA time period, which is defined as the day of admission to an inpatient location (calendar day 1), the 2 days before admission, and the calendar day after admission.

An infection is considered a **Healthcare-associated Infection (HAI)** if the date of event of the NHSN site-specific infection criterion occurs on or after the 3rd calendar day of admission to an inpatient location where day of admission is calendar day 1.

Hospital Day	Date of Event Assignment for RIT	Classification
2 days before admit	Hospital Day 1	POA
1 day before admit	Hospital Day 1	
1	Hospital Day 1	
2	Hospital Day 2	
3	Hospital Day 3	HAI
4	Hospital Day 4	
5	Hospital Day 5	

*Not applicable to SSI, LabID or VAE surveillance

14-day Repeat Infection Timeframe (RIT)

Timeframe during which no new infections of the same type are reported.

- The RIT applies to both POA and HAI determinations.
- The date of event is Day 1 of the 14-day RIT.
- If criteria for the same type of infection are met and the date of event is within the 14-day RIT, a new event is not identified or reported.
- Additional pathogens recovered during the RIT from the same type of infection are added to the event.
- Note the original date of event is maintained as is the original 14-day RIT.
- Device association determination and location of attribution are not to be amended.

Infection Window Period
(first positive diagnostic test, 3 days before and 3 days after)

Repeat Infection Timeframe (RIT)
(date of event = day 1)

Date of Event
(date the first element occurs for the first time within the infection window period)

HOSPITAL DAY	RIT	INFECTION WINDOW PERIOD
1		
2		
3		
4	1	**Urine culture:** >100,000 cfu/ml *E. coli*
5	2	Fever > 38.0 C
6	3	Fever > 38.0 C
7	4	
8	5	
9	6	Urine culture: No growth
10	7	
11	8	
12	9	Urine culture: > 100,000 cfu/ml *S. aureus*
13	10	
14	11	
15	12	
16	13	
17	14	
18		
19		
		SUTI-HAI **Date of Event = 4** **Pathogens = *E. coli, S. aureus***

*Not applicable to SSI, LabID or VAE surveillance

Central line associated bloodstream infections (CLABSI)

A laboratory-confirmed bloodstream infection (LBCI) where a central line (CL) or umbilical catheter (UC) was in place for >2 calendar days on the date of event, with day of device placement being Day 1,

AND

a CL or UC was in place on the date of event or the day before. If a CL or UC was in place for >2 calendar days and then removed, the date of event of the LCBI must be the day of discontinuation of the next day.

If the patient is admitted or transferred into a facility with an implanted central line (port) in place, and that is the patient's only central line, day of first access in an inpatient location is considered Day 1.

CLABSI continued

LCBI Criterion 1

- Patient of any age has a recognized pathogen identified form one or more blood specimens by a culture or non-culture based microbiologic testing method

  AND

- organism(s) identified in blood is not related to an infection at another site

LCBI Criteria 2&3

- LCBI 2: Any age patient had at least one: fever (>38.0°C), chills or hypotension
- LCBI 3: A patient ≤ 1 year of age have at least one: fever (>38.0°C), apnea hypothermia, bradycardia

  AND

- organism(s) identified in blood is not related to an infection at another site

  AND

- the same NHSN common commensal is identified form two or more blood specimens drawn on separate occasions by a culture or non-culture based microbiologic testing method

Catheter-associated urinary tract infections (CAUTI)

There are two specific types of UTI:

- Symptomatic UTI (SUTI)
- Asymptomatic Bacteremic UTI (ABUTI)

Both types, **if catheter-associated**, must be reported as part of any CMS CAUTI reporting requirements

Symptomatic UTI (SUTI)

- SUTI 1: Any age
  - SUTI 1a: Catheter-associated
  - SUTI 1b: Non-catheter-associated
- SUTI 2: Infants ≤1 year, with or without indwelling urinary catheter

Asymptomatic Bacteremic UTI (ABUTI)

- Any Age, with or without indwelling urinary catheter

SUTI 1a: Catheter-associated Urinary Tract Infection (CAUTI) Criteria

(Any Age) Patient must meet 1, 2, and 3 below:

1.	Patient had an indwelling urinary catheter that had been in place for > 2 calendar days (in the inpatient location) on the **date of event** AND was either:
	• Present for any portion of the calendar day on the **date of event** **OR** • Removed the day before the **date of event**
2.	Patient has at least ***one*** of the following signs or symptoms:
	• Fever (>38.0°C): To use fever in a patient > 65 years of age, the indwelling urinary catheter needs to be in place > 2 calendar days on **date of event** • Suprapubic tenderness* • Costovertebral angle pain or tenderness* • Urinary urgency ^ • Urinary frequency^ • Dysuria ^
3.	Patient has a urine culture with no more than two species of organisms identified, at least one of which is a bacterium of $\geq 10^5$ CFU/ml

***No other recognized cause**

^These symptoms cannot be used when catheter is in place

All elements of the UTI criterion must occur during the IWP

SUTI 1b: Non-Catheter-associated Urinary Tract Infection (Non-CAUTI) (Any Age) Patient must meet 1, 2, and 3 below:

1. One of the following is true:
   - Patient has/had an indwelling urinary catheter but it has/had not been in place >2 calendar days on the **date of event**

   OR

   - Patient did not have a urinary catheter in place on the date of event nor the day before the **date of event**
2. Patient has at least one of the following signs or symptoms:
   - **Fever (>38°C) in a patient that is ≤ 65 years of age**
   - Suprapubic tenderness*
   - Costovertebral angle pain or tenderness*
   - Urinary urgency ^
   - Urinary frequency^
   - Dysuria ^
3. Patient has a urine culture with no more than two species of organisms identified, at least one of which is a bacterium of $\geq 10^5$ CFU/ml

***No other recognized cause**

^These symptoms cannot be used when catheter is in place

All elements of the UTI criterion must occur during the IWP

SUTI 2: CAUTI or Non-CAUTI in patients 1 year of age or less

Patient must meet 1, 2, and 3 below:

1. Patient is ≤1 year of age (with or without an indwelling urinary catheter)
2. Patient has at least one of the following signs or symptoms:
   - Fever (>38°C)
   - **Hypothermia (<36.0°C)**
   - **Apnea***
   - **Bradycardia***
   - **Lethargy***
   - **Vomiting***
   - Suprapubic tenderness*
3. Patient has a urine culture with no more than two species of organisms identified, at least one of which is a bacterium of ≥10^5 CFU/ml

***No other recognized cause**

All elements of the UTI criterion must occur during the IWP

Asymptomatic Bacteremic Urinary Tract Infection (ABUTI) (Any Age)

Patient must meet 1, 2, and 3 below:

1.	Patient with or without an indwelling urinary catheter has **no signs or symptoms** of SUTI 1 or 2 according to age (**Note**: Patients > 65 years of age with a non-catheter-associated ABUTI may have a fever and still meet the ABUTI criterion)
2.	Patient has a urine culture with no more than two species of organisms identified, **at least one of which is a bacterium of ≥10^5 CFU/ml**
3.	Patient has organism identified from blood specimen with at least **one matching bacterium** to the bacterium identified in the urine specimen, OR meets LCBI criterion 2 (without fever) and matching common commensal(s) in the urine.

All elements of the UTI criterion must occur during the IWP

MRSA Bacteremia and C. *difficile* LabID Event

C. *difficile* LabID Event

- A positive laboratory test result for C. *difficile* toxin A and/or toxin B tested on an unformed stool specimen OR a toxin-producing C. *difficile* organism detected by culture or other laboratory means performed on an unformed stool sample for a patient in a location with no prior C. *difficile* specimen result reported within 14 days for the patient and location
- When using multi-testing methodology for CDI identification, the final result of the last test finding will determine if the CDI positive laboratory assay definition is met.

MRSA bacteremia LabID Event

- Any MRSA blood specimen obtained for clinical decision making purposes (excluding screening cultures) OR the first MRSA positive blood specimen for a patient in a location with no prior MRSA positive blood specimen result collected within 14 days for the patient and location

Test Your Knowledge!

Scenario #1

On June 3rd Mr. Rhoades was admitted to CCU after having a heart attack. On June 4th, a central line was placed. A blood culture was collected on June 7th because Mr. Rhoades had become confused and was having chills. The culture results were positive for *Serratia marcescens* (a recognized pathogen). No other source of infection was identified.

Is this an LCBI?

A. Yes

B. No

Scenario #2

Your facility is performing CAUTI surveillance on your medical ward 5-West.

Patient is admitted to 5-West on 1/15/2018 with urine culture positive for > 100,000 CFU/ml of E. coli. No NHSN UTI symptoms are present. Foley is inserted at time of urine culture.

9 days later (1/23/18), the Foley remains, and patient has temperature of 38.2°C and positive urine culture of > 100,000 CFU/ml of E. coli.

A CAUTI should be reported for this patient for 1/23/18.

A. True

B. False

Scenario #3

Janet comes to the ER with complaint of ankle pain following a flag football tackle. X-rays show a fracture and she goes directly to surgery for ORIF where Levaquin is used for prophylaxis. She has a fever in the recovery room and is admitted to 3 Main for observation with an order to continue Levaquin for 48 hours. On hospital day 4, Janet complains of abdominal pain and diarrhea. The next day, HD 5, a loose stool is submitted for C. difficile testing and is reported to be PCR+.

This facility participates in C. *difficile* LabID Event Reporting for FacWideIN. Would you reporting he HD 5 PCR+ lab result as a LabID Event?

A. No. It's too quick to be a true CDI case

B. Yes. This is the first positive lab finding for the patient and the location

C. No. Testing doesn't count forLabID Events

D. No. The antibiotics are the real problem

Scenario #4

Ms. Rainbow Johnson was admitted to ICU on 12/05/17. While on ICU she had a positive MRSA blood culture collected on 12/9. After a one week stay in ICU she was transferred to IRF on 12/11/2017 for strengthening. While on IRF she had another positive MRSA unique blood specimen collected on 12/21/2017. Based on this information is this a LabID event for ICU?

A. Yes

B. No

NHSN Annual Training

Accurate Use of the National Healthcare Safety Network (NHSN) for Healthcare-Associated Infection Surveillance 2019

March 25-29, 2019

~Live Streaming Available~

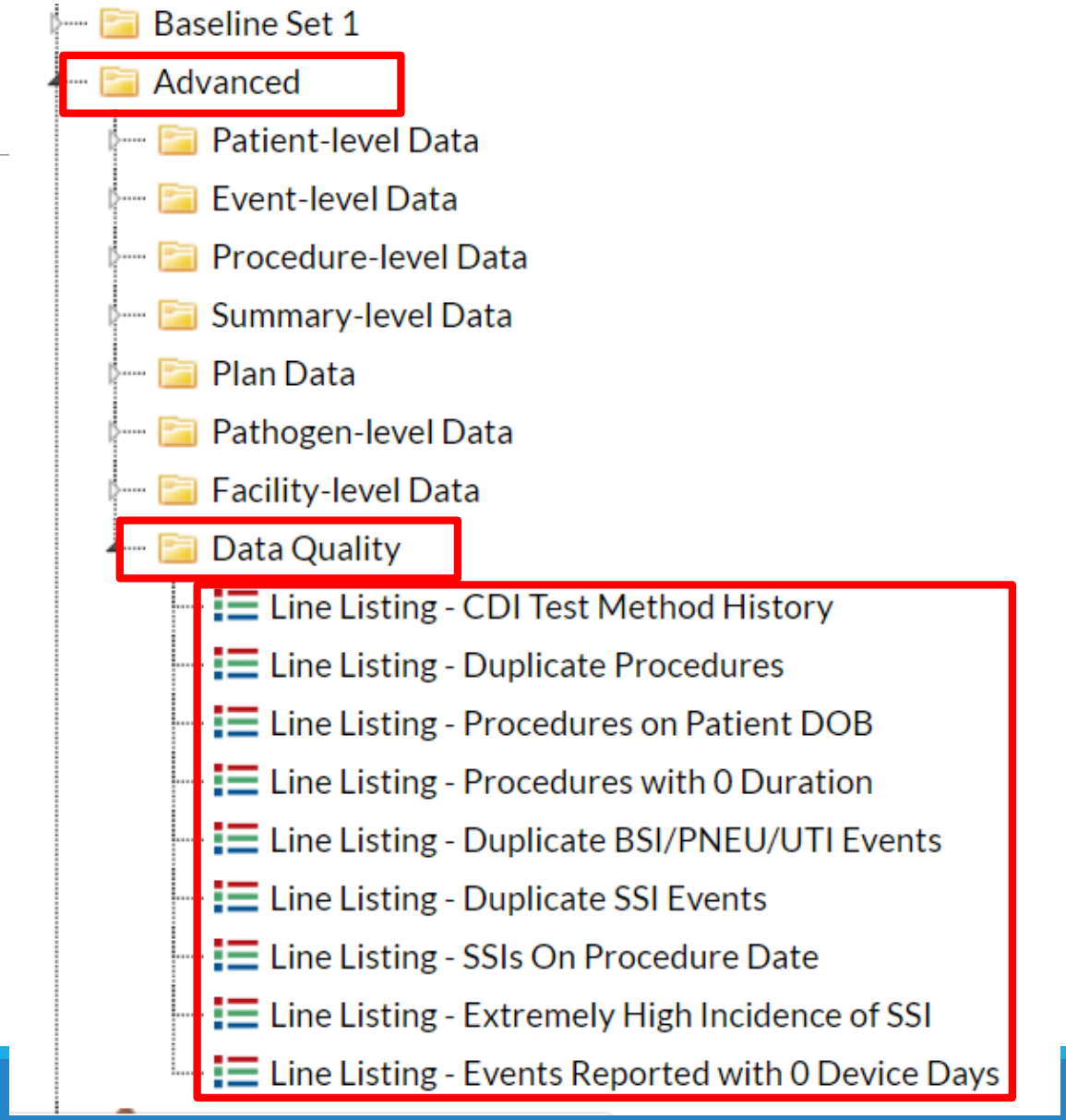
NHSN Analysis

Data Quality

Convenient, pre-built reports available to pinpoint potential errors in data

SHARP runs these reports, in addition to others, prior to every quarter reporting deadline to ensure your facility is reporting the most accurate data

Data errors can affect data analysis and alter models which may prevent accurate representation of your data

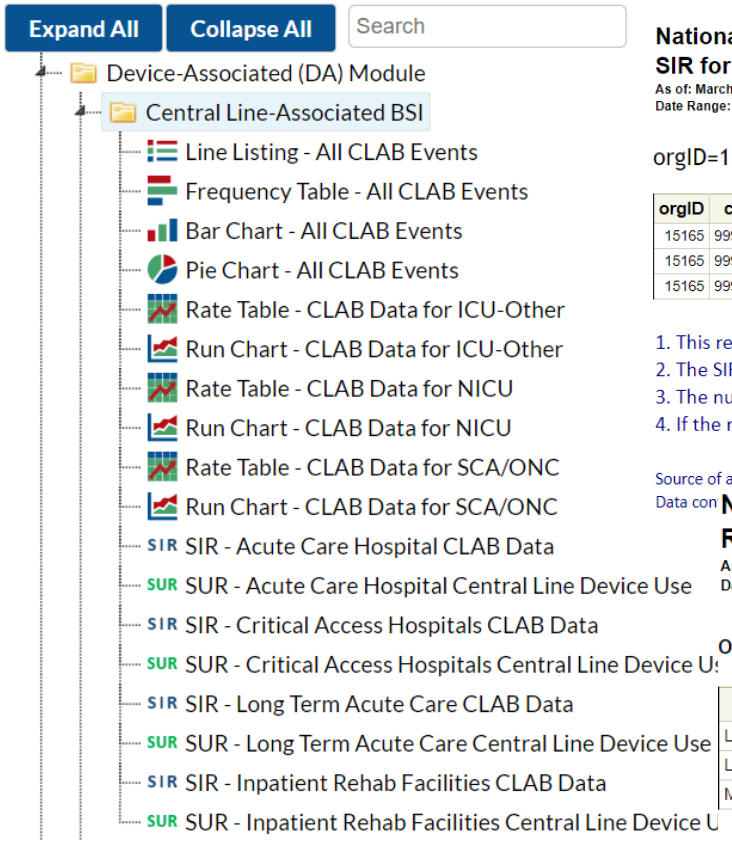


NHSN Analysis Reports

Reports can be beneficial in identifying areas of greatest need of prevention efforts specific to your facility.

Explore these reports! You can't "hurt" the data you've entered

Data quality is important (hint, hint).



National Healthcare Safety Network
SIR for Central Line-Associated BSI Data for Acute Care Hospitals (2015 baseline) - By OrgID
As of: March 5, 2019 at 1:52 PM
Date Range: BS2_CLAB_RATESALL summaryYQ After and Including 2015Q1

orgID=15165 medType=' '

orgID	ccn	summaryYH	infCount	numPred	numCldays	SIR	SIR_pval	sir95ci
15165	999999	2016H1	0	1.497	1819	0.000	0.2238	, 2.001
15165	999999	2016H2	0	0.013	5	.	.	
15165	999999	2017H1	1	0.022	30	.	.	

1. This report includes CLABSI data from acute care hospitals for 2015 and forward excluding MBI events. For 2019 and forwar
2. The SIR is only calculated if the number predicted (numPred) is >= 1. Lower bound of 95% Confidence Interval only calculat
3. The number of predicted events is calculated based on national aggregate NHSN data from 2015. It is risk adjusted for CDC
4. If the risk factor data are missing, the record will be excluded from the SIR.

Source of aggregate data: 2015 NHSN CLABSI Data
Data con

National Healthcare Safety Network
Rate Table for Central Line-Associated BSI Data for ICU-Other
As of: March 5, 2019 at 1:55 PM
Date Range: All BS2_CLAB_RATESICU

orgID=15165 loccdc=IN:ACUTE:CC:MS

location	summaryYM	CLABCount	numCLDays	CLABRate	numPatDays	LineDU
L200	2016M01	0	350	0.000	700	0.500
L200	2016M02	0	50	0.000	100	0.500
MEDSURG CC	2016M03	0	555	0.000	1111	0.500

This report includes CLABSI data for 2015 and forward excluding MBI events. For 2019 and forward, this report al
Data contained in this report were last generated on December 4, 2018 at 10:02 AM.

TAP Strategy

What is the TAP Strategy?

Targeted Assessment for Prevention (TAP) strategy

- Uses data for action to prevent HAIs
- Targets healthcare facilities and facility units with a disproportionate burden of HAIs
- Assess the gaps in infection prevention using TAP reports
- Implementing infection prevention strategies

Arcement R., White K. Targeted Assessment for Prevention (TAP) Strategy. March 1, 2018. Centers for Disease Control and Prevention, National center for Emerging and Zoonotic Infectious Diseases.

TAP Strategy - Target

TAP Reports!

- Purpose: Use NHSN data to provide detailed report identifying facilities/units with excess burden of HAIs using the Cumulative Attributable Difference (CAD) metric
- MDHHS SHARP provides these reports on a quarterly basis to individual facilities in addition to aggregate and regional reports available here: www.michigan.gov/hai

Standardized Infection Ratio (SIR)

$$SIR = \frac{\text{Observed \# HAIs}}{\text{Predicted \# HAIs}}$$

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

Cumulative Attributable Difference (CAD)

CAD = Observed # HAIs – (Predicted # HAIs x SIR goal)

A measure that shows difference between the number of observed infections and 'predicted infections multiplied by SIR goal' in a defined period

Arcement R., White K. Targeted Assessment for Prevention (TAP) Strategy. March 1, 2018. Centers for Disease Control and Prevention, National center for Emerging and Zoonotic Infectious Diseases.

A little more about CAD…

Facility A: Observed = 50, Predicted = 70.805, SIR = 0.706			
HHS Reduction Goal	**SIR Goal**	**CAD Formula** Observed – (Predicted X SIR goal)	**CAD**
25%	0.75	50 - (70.8 X 0.75)	-3.10
50%	0.50	50 - (70.8 X 0.50)	14.60

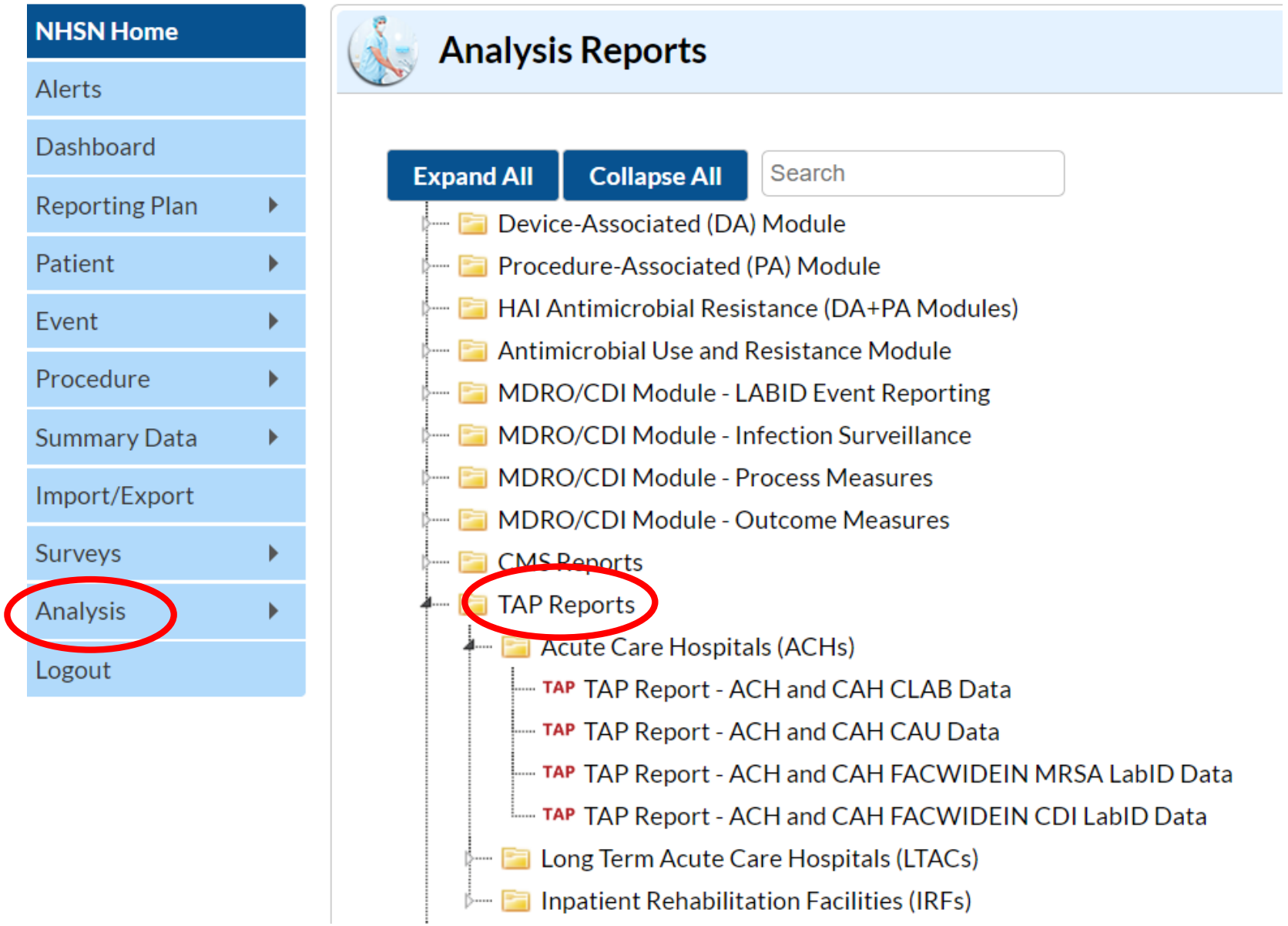
- CAD can be Positive or Negative
  - Positive CAD = additional burden of infections than what would be predicted with regard to the SIR goal (“excess” infections)
  - Negative CAD = fewer infections than what would be predicted

Arcement R., White K. Targeted Assessment for Prevention (TAP) Strategy. March 1, 2018. Centers for Disease Control and Prevention, National center for Emerging and Zoonotic Infectious Diseases.

How to Run a TAP Report

TAP reports allow the user to rank every reporting location for each module

- Rank by highest to lowest CAD, regardless of if there are enough predicted infections to calculate an SIR
  - i.e. Location Rank 1 needs the most prevention work
- See top performing and bottom performing locations


NHSN Home
Alerts
Dashboard
Reporting Plan
Patient
Event
Procedure
Summary Data
Import/Export
Surveys
Analysis
Logout
Analysis Reports
Expand All
Collapse All
Search
Device-Associated (DA) Module
Procedure-Associated (PA) Module
HAI Antimicrobial Resistance (DA+PA Modules)
Antimicrobial Use and Resistance Module
MDRO/CDI Module - LABID Event Reporting
MDRO/CDI Module - Infection Surveillance
MDRO/CDI Module - Process Measures
MDRO/CDI Module - Outcome Measures
CMS Reports
TAP Reports
Acute Care Hospitals (ACHs)
TAP TAP Report - ACH and CAH CLAB Data
TAP TAP Report - ACH and CAH CAU Data
TAP TAP Report - ACH and CAH FACWIDEIN MRSA LabID Data
TAP TAP Report - ACH and CAH FACWIDEIN CDI LabID Data
Long Term Acute Care Hospitals (LTACs)
Inpatient Rehabilitation Facilities (IRFs)

National Healthcare Safety Network
TAP Report - CLABSI Data for Acute Care Hospitals
Locations Ranked by CAD Within a Facility
Cumulative Attributable Difference (CAD) Multiplier: HHS Goal = 0.5

As of: April 26, 2016 at 9:52 AM
Date Range: All CLAB_TAP

FACILITY			LOCATION									
orgID	name	facCAD	locRank	location	loccdc	infCount	numcldays	locDUR	locCAD	locSIR	SIRtest	numPathBSI
15165	NHSN State Users Test Facility #2	2.28	1	5M	IN:ACUTE:WARD:M	1	50	14	0.96	.		3 (1, 0, 1, 0, 0, 1)
			2	5ICU	IN:ACUTE:CC:N	1	140	37	0.90	.		2 (0, 0, 1, 0, 0, 0)
			3	1	IN:ACUTE:CC:MS	1	200	40	0.79	.		2 (0, 0, 1, 1, 0, 0)
			4	L600	IN:ACUTE:WARD:M	0	25	17	-0.02	.		
			4	L700	IN:ACUTE:WARD:MS	0	30	60	-0.02	.		
			6	L200	IN:ACUTE:CC:MS	0	50	50	-0.05	.		
			7	L800	IN:ACUTE:WARD:S	0	100	57	-0.07	.		
			8	L300	IN:ACUTE:CC:S	0	75	33	-0.09	.		
			9	L100	IN:ACUTE:CC:M	0	100	50	-0.13	.		

TAP Report Outputs for Group Users

Facilities Within the Group Ranked by CAD

National Healthcare Safety Network
TAP Report for CLABSI Data for Acute Care and Critical Access Hospitals (2015 Baseline)
Facilities within the Group Ranked by CAD
SIR Goal: HHS Goal = 0.5

Facility Rank

A TAP Report is the first step in the CDC TAP Strategy. For more informatin on the TAP Strategy, please visit: http://www.cdc.gov/ha
As of February 16, 2017 at 2:00 PM
Date Range: BS2_CLAB_TAP summaryYr2016 to 2016

facRank	orgID	name	state	medType	numBeds	numLoc	numEvent	
1	10000	DHQP Memorial Hospital	GA		677	27 (8, 0, 19)	157 (77, 0, 80)	112962 (5
2	10401	DHQP Memorial Annex	GA	M	886	31 (7, 1, 23)	123 (57, 4, 62)	99541 (3
3	10587	Dudeck Regional Life Center	IL	M	1,044	40 (7, 1, 32)	115 (27, 11, 77)	105785 (3
4	90001	CDC Health Hospital	GA		357	20 (4, 1, 15)	61 (22, 4, 35)	22527 (6
5	10018	Weiner Center of Medicine	CA		535	20 (3, 1, 16)	53 (22, 2, 29)	20574 (5
6	10297	Arcement Medical Center	LA		361	19 (3, 0, 16)	55 (20, 0, 35)	25796 (8
7	10064	Falcon Memorial Hospital	GA		457	19 (4, 0, 15)	79 (18, 0, 61)	75493 (2
8	10957	All Saints Medical	LA		281	9 (2, 0, 7)	47 (9, 0, 38)	16691 (5
9	10962	Louisiana Hospital of Texas	TX		595	20 (5, 1, 14)	62 (13, 2, 47)	40057 (1
10	88888	Georgia Hospital of Louisiana	LA	G	355	24 (5, 1, 18)	47 (12, 6, 29)	16936 (7

1. This report includes CLABSI data for 2015 and forward. Following the 2015 rebaseline, Mucosal Barrier Injury Laboratory-Confirmed Blooc
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
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 NHSN CLABSI Data
Data contained in this report were last generated on January 19, 2017 at 12:17 PM

Locations Ranked by CAD Within a Facility

Location Rank and Location

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 informatin 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 summaryYr2016 to 2016

FACILITY				LOCATION								
Facility Rank	Facility Org ID	Facility Name	Facility CAD	Location Rank	Location	CDC Location	Events	Central Line Days	DUR %	CAD	SIR	SIR Test	No. Pathogens (CNS,YS,SA,ES,KS,EC)
1	10000	DHQP Memorial Hospital	6.35	.	OP WARD	OUT:ACUTE:WARD	0	56					
				1	STEP1	IN:ACUTE:STEP	3	1120	11	2.41	2.6		3 (1, 1, 0, 0, 0, 0)
				2	2W	IN:ACUTE:WARD:M	2	1312	22	1.39	1.6		2 (0, 0, 0, 0, 0, 0)
				3	ICU	IN:ACUTE:CC:MS	4	5073	54	1.33	0.8		4 (0, 2, 0, 2, 0, 0)
				4	STEP2	IN:ACUTE:STEP	2	2105	21	0.89	0.9		2 (0, 1, 1, 0, 0, 0)
				5	1E	IN:ACUTE:WARD:MS	1	402	9	0.81	.		1 (1, 0, 0, 0, 0, 0)
				6	2E	IN:ACUTE:WARD:PP	0	4	0	0	.		
				7	1W	IN:ACUTE:WARD:M	0	28	2	-0.01	.		
				8	TELE	IN:ACUTE:WARD:TEL	0	457	7	-0.21	.		
				9	ICU2	IN:ACUTE:CC:MS	0	564	10	-0.26	.		
2	10401	DHQP Memorial Annex	5.35	1	ICU	IN:ACUTE:CC:MS	3	2181	53	2.06	1.6		3 (1, 1, 0, 0, 0, 0)
				2	2 West	IN:ACUTE:WARD:TEL	2	654	6	1.75	.		2 (0, 0, 1, 0, 0, 1)
				3	6 West	IN:ACUTE:WARD:N	1	382	7	0.85	.		1 (0, 0, 0, 0, 1, 0)
				4	ICU4	IN:ACUTE:CC:MS	2	2692	60	0.84	0.9		2 (0, 1, 0, 0, 0, 0)
				5	ICU3	IN:ACUTE:CC:M	1	496	6	0.81	.		1 (0, 1, 0, 0, 0, 0)
				6	7 East	IN:ACUTE:WARD:S	1	1169	14	0.55	.		1 (0, 0, 0, 0, 1, 0)
				7	5 West	IN:ACUTE:WARD:M	1	2194	21	0.16	0.6		1 (0, 0, 0, 0, 0, 0)

Arcement R., White K. Targeted Assessment for Prevention (TAP) Strategy. March 1, 2018. Centers for Disease Control and Prevention, National center for Emerging and Zoonotic Infectious Diseases.

TAP Reports from SHARP

Sample Hospital

Letter __

2018Q2 TAP Report

Michigan Department of Health and Human Services

Surveillance for Healthcare-Associated and Resistant Pathogens (SHARP) Unit

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The Michigan Department of Health and Human Services (MDHHS) Surveillance for Healthcare-Associated and Resistant Pathogens (SHARP) Unit began including the new targeted assessment for prevention (TAP) reports in the 2014 annual statewide aggregate report. Beginning with the 2015 Quarter 1 report, an aggregate state-wide report and individual TAP reports are provided quarterly to each facility that has voluntarily shared data with the SHARP unit. Aggregate reports are also available for acute care hospitals in each emergency preparedness region and critical access hospitals.

This report shows modules and locations where your facility either needs to focus additional prevention efforts or is excelling in infection prevention. **Table 1** presents a cumulative attributable difference (CAD) determined using the 2020 HHS target standardized infection ratios (SIRs) for each module, using the NHSN 2015 Baselines, which is modeled after the data included in the CDC National and State Annual HAI Report. Numbers with "Need to Prevent" next to them show how many infections your facility needs to prevent quarterly in order to reach the 2020 HHS target SIR. Numbers with "Prevented" next to them show the number of infections prevented beyond what was expected for your facility according to the 2020 HHS target SIR. Corresponding SIRs for each module and location type are provided as well.

Table 1. 2018Q2 Targeted Assessment for Prevention Report

NHSN Module[1]	Hospital Type	Location[2]	SIR[3]	Significant (Y/N)[4]	CAD[5]	Prevented or Need to Prevent
CAUTI	Acute	All	0.76	N	0.038	Need to Prevent
		ICU	1.076	N	0.909	Need to Prevent
		WARD+	0	N	-0.871	Prevented
CLABSI	Acute	All	1.451	N	2.622	Need to Prevent
		ICU	2.881	N	2.479	Need to Prevent
		WARD+	0.623	N	0.198	Need to Prevent
		NICU	.	.	-0.055	Prevented
CDI	Acute	Facility-wide	1.215	N	9.747	Need to Prevent
MRSA Bacteremia	Acute	Facility-wide	0	N	-1.093	Prevented
SSI COLO	Acute	----	1.012	N	1.85	Need to Prevent
SSI HYST	Acute	----	0.979	N	0.285	Need to Prevent
SSI HPRO	Acute	----	1.457	N	1.039	Need to Prevent
SSI KRPO	Acute	----	.	.	-0.46	Prevented

[1]CAUTI, catheter-associated urinary tract infection; CLABSI, central line-associated bloodstream infection; CDI, *Clostridium difficile* infection LabID; MRSA Bac, methicillin-resistant *Staphylococcus aureus* bloodstream infection LabID; SSI COLO, admission/readmission colon surgical site infection; SSI HYST, admission/readmission abdominal hysterectomy surgical site infection; SSI HPRO, admission/readmission hip arthroplasty surgical site infection; SSI KPRO, admission/readmission knee arthroplasty surgical site infection.

[2]All includes all units for which in-plan data are reported; ICU includes all critical care units for which in-plan data are reported; WARD+ includes all WARD, WARD_ONC, SCA, STEP, or OTHER units for which in-plan data are reported; NICU includes all neonatal critical care units for which in-plan data are reported; Facility-wide includes all inpatient units for which in-plan data are reported.

[3]SIR: Standardized Infection Ratio: Ratio of observed events compared to the number of predicted events, accounting for unit type or other variables. An SIR of 1 can be interpreted as having the same number of events as predicted. An SIR that is between 0 and 1 represents fewer events than predicted, while an SIR of greater than 1 represents more events than predicted. SIRs were calculated using the 2015 NHSN Baselines.

[4]Significant (Y/N). A Y indicates that, based on the p-value and 95% Confidence Interval (CI), the SIR is statistically significantly different than 1. An N indicates that, based on the p-value and 95% CI, the SIR is not statistically significantly different than 1 (expected).

[5]CAD=Cumulative Attributable Difference. The number of infections that your hospital either needs to prevent to meet the 2020 HHS target or has prevented beyond the 2020 HHS target. 2020 HHS HAI Target SIRs: CAUTI = 0.75, CLABSI = 0.50, CDI = 0.70, MRSA bacteremia = 0.50, SSI = 0.70.

TAP Strategy - Assess

TAP Facility Assessment Tools

- Assess targeted facilities/units for potential gaps in infection control
- Summarize responses and calculate scores across units, facilities, and groups to identify gaps
- Assessment is meant to capture **awareness and perceptions** of policies and practices related to HAI prevention
  - Should be administered to a variety of staff and healthcare personnel, including frontline providers, mid-level staff, facility's senior leadership
  - Multiple assessments per facility for interpreting results

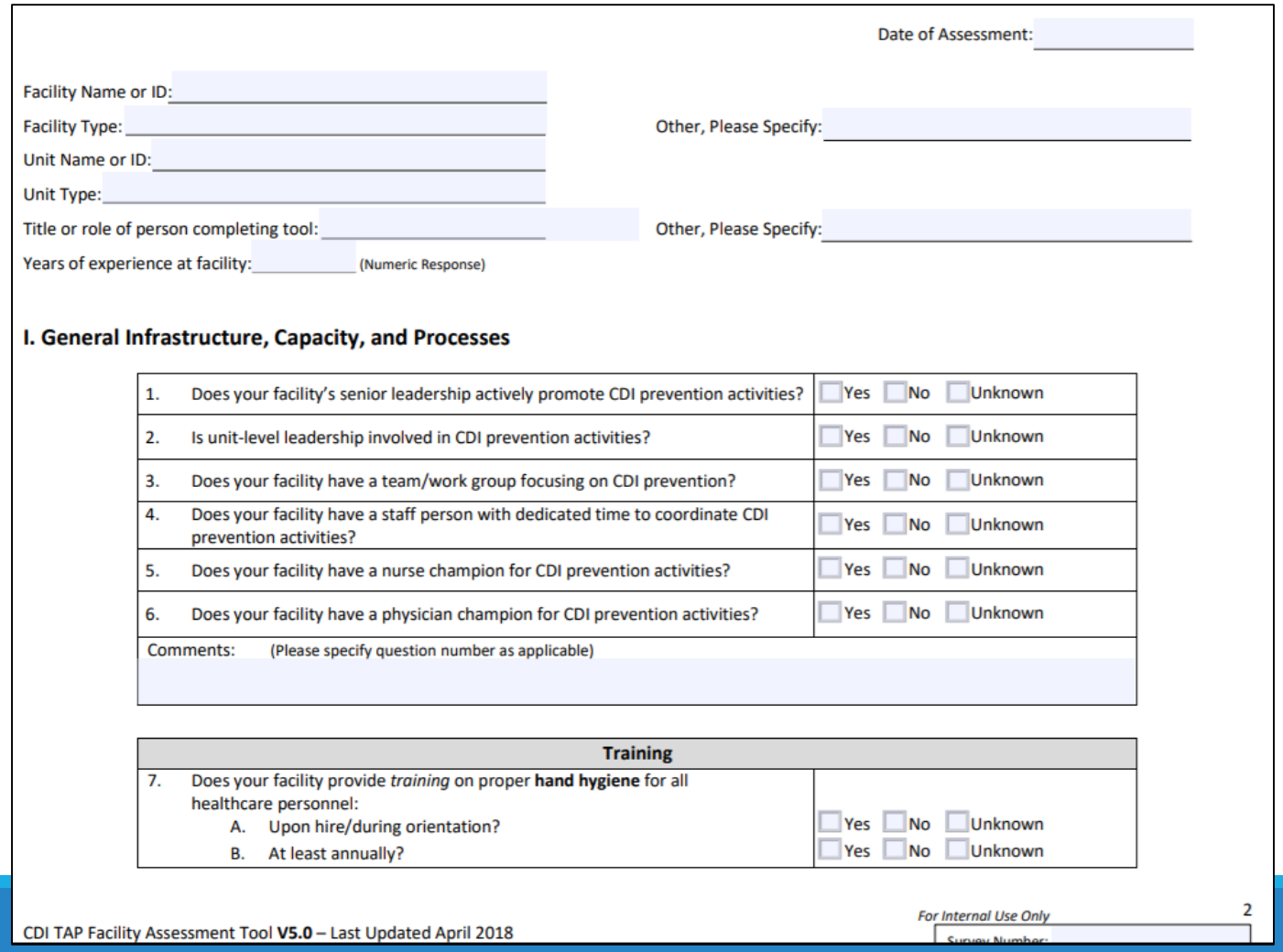
Arcement R., White K. Targeted Assessment for Prevention (TAP) Strategy. March 1, 2018. Centers for Disease Control and Prevention, National center for Emerging and Zoonotic Infectious Diseases.

TAP CDI Facility Assessment Tool

5 Sections

- I. General Infrastructure
- II. Antibiotic Stewardship
- III. Early Detection and Isolation, Appropriate Testing
- IV. Contact Precautions/Hand Hygiene
- V. Environmental Cleaning

TAP CDI Facility Assessment Tool



Date of Assessment: _____

Facility Name or ID: _____

Facility Type: _____ Other, Please Specify: _____

Unit Name or ID: _____

Unit Type: _____

Title or role of person completing tool: _____ Other, Please Specify: _____

Years of experience at facility: _____ (Numeric Response)

I. General Infrastructure, Capacity, and Processes

1.	Does your facility's senior leadership actively promote CDI prevention activities?	☐ Yes ☐ No ☐ Unknown
2.	Is unit-level leadership involved in CDI prevention activities?	☐ Yes ☐ No ☐ Unknown
3.	Does your facility have a team/work group focusing on CDI prevention?	☐ Yes ☐ No ☐ Unknown
4.	Does your facility have a staff person with dedicated time to coordinate CDI prevention activities?	☐ Yes ☐ No ☐ Unknown
5.	Does your facility have a nurse champion for CDI prevention activities?	☐ Yes ☐ No ☐ Unknown
6.	Does your facility have a physician champion for CDI prevention activities?	☐ Yes ☐ No ☐ Unknown
Comments:	(Please specify question number as applicable)	

Training		
7.	Does your facility provide *training* on proper **hand hygiene** for all healthcare personnel:	
	A. Upon hire/during orientation?	☐ Yes ☐ No ☐ Unknown
	B. At least annually?	☐ Yes ☐ No ☐ Unknown

TAP CDI Facility Assessment Tool

IV. Contact Precautions / Hand Hygiene

	Never	Rarely	Sometimes	Often	Always	Unknown	
1. Do patients with CDI remain on Contact Precautions for the duration of diarrhea at your facility?	☐	☐	☐	☐	☐	☐	
2. Do patients with CDI remain on Contact Precautions for at least 48 hours after diarrhea ends?	☐	☐	☐	☐	☐	☐	
3. Do patients with CDI remain on Contact Precautions for the entire duration of hospitalization at your facility?	☐	☐	☐	☐	☐	☐	
4. Are patients with CDI housed separately from patients without CDI (i.e., in private rooms or placed with other CDI patients ['cohorted']) at your facility?	☐	☐	☐	☐	☐	☐	
5. Are dedicated or disposable noncritical medical items (e.g., blood pressure cuffs, stethoscopes, thermometers) used for patients with confirmed or suspected CDI?	☐	☐	☐	☐	☐	☐	
6. Are Contact Precautions signs used to designate rooms of patients with confirmed CDI?	☐	☐	☐	☐	☐	☐	
7. Are Contact Precautions signs used to designate rooms of patients with suspected CDI?	☐	☐	☐	☐	☐	☐	
8. *If Applicable,* are the Contact Precautions signs placed in a location easily visible prior to room entry?	☐	☐	☐	☐	☐	☐	☐ N/A
9. *If Applicable,* do the Contact Precautions signs provide clear directions for usage (e.g., about required PPE and handwashing)?	☐	☐	☐	☐	☐	☐	☐ N/A
Comments: (Please specify question number as applicable)							

TAP Strategy - Prevention

TAP Feedback Report

- Summarized data from the Assessment tool
- Identifies specific gaps by section
- Scoring methodology was developed to help further target areas with the most opportunity for improvement
  - NOT intended to compare performance across facilities!

Other prevention resources are outlined on the NHSN TAP webpage

- http://www.cdc.gov/hai/prevent/tap.html

Coming Soon!

Web-based HAI surveillance dashboard

New platform to view TAP reports, HAI data for statewide, regional and individual facility

- SIR
- CAD
- Infection counts
- Infection rates
- SURs

More information coming soon!

Long Term Care Component

Overview

The Long-term Care Facility (LTCF) Component provides long-term care facilities with a customized system to track infections and prevention process measures.

Tracking this information allows facilities to identify problems, improve care, and determine progress toward national healthcare-associated infection goals.

Facilities eligible to report into all modules of this component include:

- Nursing homes
- Skilled nursing facilities
- Chronic care facilities
- Developmental disability facilities

https://www.cdc.gov/nhsn/ltc/

Available Modules in the LTCF Component

- C. *difficile* Infection (CDI) and Multidrug-resistant Organisms (MDRO)
- Urinary Tract Infections (UTIs)
- Prevention Process Measures
  - Hand Hygiene
  - Gloves
  - Gown Use and Adherence
- Healthcare Personnel Vaccination Component

Thank you!

Elisia “Elli” Ray, MPH

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Join us for **Michigan NHSN User Group Calls** every other month!

Next call: Wednesday April 24th at 10am