

MDCH SHARP NHSN USERS CONFERENCE CALL
Wednesday, May 27th, 2015

Thank you to those who were able to join our bi-monthly NHSN users' conference call. If you were unable to participate on this call, we hope that you will be able to participate next month. Any healthcare facility is welcome to participate in these calls, whether they are sharing NHSN data with us or not. These conference calls are voluntary. Registration and name/facility identification are **not** required to participate.

Our monthly conference calls will be held on the 4th Wednesday **every other** month at 10:00 a.m. **Our next conference call is scheduled for July 22nd, 2015.**

Call-in number: 877-336-1831

Passcode: 9103755

Webinar: <http://breeze.mdch.train.org/mdchsharp/>

Suggestions for agenda items and discussion during the conference calls are always welcome! Please contact Allie at murada@michigan.gov to add items to the agenda.

HIGHLIGHTS FROM CONFERENCE CALL

Welcome & Introductions

Allie welcomed participants on the call and SHARP staff in the room were introduced. Participants were reminded to put their phones on mute or to press *6.

Update on Reports

Allie provided the 2013 Annual Report and the 2014 Q1-Q4 Reports for download (also provided at the www.michigan.gov/hai website). SHARP Intern Allison Chan gave a presentation on how to interpret aggregate quarterly reports (attached below).

NHSN Updates

Allie presented a powerpoint containing a review of the March 2015 NHSN Newsletter and information on updated protocols and training materials (attached below).

Questions from Users

Allie presented FAQ's from NHSN users across the nation, provided by CDC, as well as Michigan-specific questions (in powerpoint below).

ELC Ebola Supplemental Grant

Noreen presented a 3-year plan for an ELC Ebola Supplemental Grant that the SHARP Unit recently received (attached below).

Next Meeting

The next SHARP Unit NHSN conference call is scheduled for July 22nd, 2015 at 10:00 a.m.

NHSN 2014 Quarterly Report Summary

Allie Murad: MuradA@michigan.gov

Allison Chan: ChanA@michigan.gov

→ This report compiled Michigan HAI data voluntarily shared via NHSN with the MDCH SHARP Unit for the 2014 Quarterly reporting period. This highlight sheet presents a new format that will replace the formal quarterly reports. Semi-Annual and Annual reports will still be provided following a more traditional format.

→ Note that these data from participating hospitals have not been validated. Validation studies will be conducted as additional funding becomes available. This report contains data from many more facilities than in previous reports. Data will continue to become more reliable as additional Michigan hospitals participate in this surveillance initiative.

Standardized Infection Ratios (SIRs) for NHSN Modules Centers for Medicare and Medicaid Services (CMS) Required Elements ¹ State of Michigan 2014 Q2												
Infection Type	MI Hosp ²	MI CMS Obs ³	MI CMS Pred ⁴	MI CMS SIR ⁵	MI CMS SIR p-value ⁶	MI CMS SIR 95% CI ⁷	MI Hosp ⁸	MI CMS Obs	MI CMS Pred	MI CMS SIR	MI CMS SIR p-value	MI CMS SIR 95% CI
CAUTI ⁹	86	238	180.73	1.317	0.0001	1.157, 1.492	Acute (82)	238	180.566	1.318	0.0001	1.158, 1.494
							CAH (<5)	-----	-----	-----	-----	-----
CLABSI ¹⁰	86	58	158.409	0.366	<0.0001	0.281, 0.470	Acute (82)	58	158.36	0.366	<0.0001	0.281, 0.470
							CAH (<5)	-----	-----	-----	-----	-----
ICU ¹¹	86	53	140.64	0.377	<0.0001	0.285, 0.489	Acute (82)	53	140.588	0.377	<0.0001	0.285, 0.489
							CAH (<5)	-----	-----	-----	-----	-----

SIR = Observed # of Events/Predicted # of Events

Michigan Data for CMS Reporting

¹Elements currently required for acute care facilities only
²Michigan Hospitals: the total number of hospitals sharing data with the SHARP Unit for each infection type
³Michigan Observed: Number of infections reported during the time frame overall for each module.
⁴Michigan Predicted: The overall number of infections predicted based on the type of hospital unit(s) under surveillance.
⁵Michigan SIR: Standardized Infection Ratio: Ratio of observed events compared to the number of predicted events, accounting for unit type or procedure. An SIR of 1 can be interpreted as having the same number of events that were predicted. An SIR that is between 0 and 1 represents fewer events than predicted, while an SIR of greater than 1 represents more. ⁶Michigan had significantly more infections than expected, ⁷Michigan had significantly fewer infections than expected.
⁸P-value: An SIR p-value of <0.05 is considered significantly different than expected. It can show either significantly more infections (if the SIR is greater than 1 and the p-value is <0.05) or significantly fewer (if the SIR is less than 1 and the p-value is <0.05).
⁹Michigan 95% CI: 95% confidence interval around the SIR estimate. A 95% CI indicates that 95% of the time, the actual SIR will fall within this interval.
¹⁰Number of Michigan hospitals sharing data with the SHARP Unit. Acute care hospitals fulfill requirements set by the Center for Medicare and Medicaid Services (CMS). CAH: Critical Access Hospital. CAHs currently have no reporting requirements for CMS.
¹¹Catheter-Associated Urinary Tract Infection, ¹²Central Line-Associated Blood Stream Infection, ¹³ICU: CLABSIs from ICU-only, ¹⁴NICU: CLABSIs from NICU-only, ¹⁵Surgical Site Infection – Colon Surgery, ¹⁶Surgical Site Infection – Abdominal Hysterectomy, ¹⁷MRSA BacLabID: Inpatient facility-wide MRSA bacteremia Laboratory-Identified Event, ¹⁸CDI LabID: Inpatient facility-wide Clostridium difficile Laboratory-Identified Events

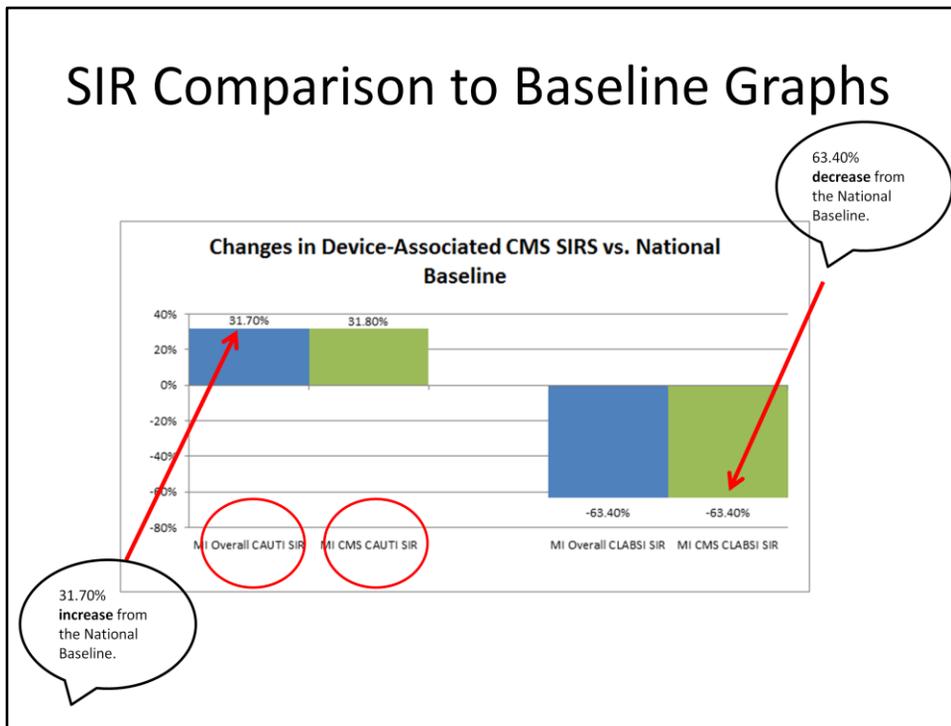
→ SIR = A simple way to compare HAI rates to the expected. Larger than 1 = Bad. Smaller than 1 = Good.

→ P-Value: The probability of having the observed SIR under the null hypothesis (No difference between the expected SIR and the observed SIR). P < 0.05 → There is a less than 5% probability of having the observed # of events under the null. Thus we can reject the null and state that there is a statistically significant difference between the observed and expected # of events.

→ 95% Confidence Interval: “We are 95% confident that the SIR falls between this range”. If the value of 1 is included, this also indicates that the results are not statistically significant.

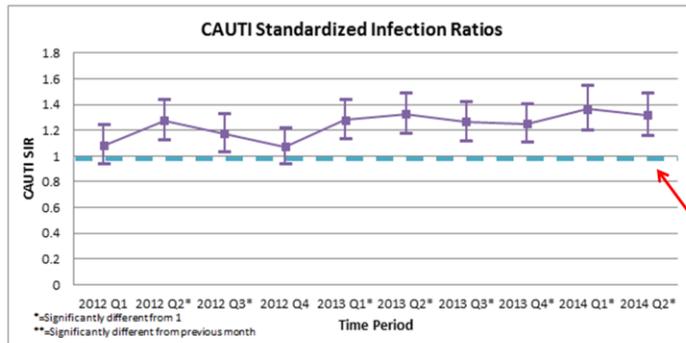
→ Acute vs. CAH Differentiation: Source, <http://www.hrsa.gov/healthit/toolbox/RuralHealthITtoolbox/Introduction/critical.html>

SIR Comparison to Baseline Graphs



→ National Baseline (0%): National baseline data were collected in 2006-2008 for CLABSI and SSI, 2009 for CAUTI, and 2011 for CDI and MRSA. New baseline data for all modules will be collected in 2015.

Overall SIR Trend Graphs



SIR Numbers are from the left side of the table (Overall SIR values).

Baseline of 1 is indicated with a dashed line on every trend graph.

Confidence intervals are visually shown with whiskers indicating the upper and lower limits. If the CI does not include 1, then our SIR is statistically different than 1. If the CI does NOT include the mean SIR from the previous month, then the subsequent SIR is statistically different from the previous month.

NHSN User Group Call

May 27, 2015
MDHHS SHARP Unit

Protocol Updates

- NHSN has clarified content in several NHSN protocols and modified content in UTI and SSI protocols
- Footer of each updated protocol reflects revision date of April 2015
 - Protocol revisions do not impact the identification or reporting of infections aside from UTI and SSI.

Protocol Revision: UTI

- Use UTI modifications for data beginning April 1, 2015
 - No need to modify first quarter CAUTI data
- Changes (from the summary document):
 - SUTI 1a, the two subcategories collapsed into single category, and clarification made to the wording to improve clarity. A "Note" was added to SUTI 1a criteria to add additional clarification for users. The edits are also reflected in the UTI flowchart, Event Form 57.114, Table of Instructions, and NHSN application.
 - Clarification made to the Settings in which UTI surveillance may occur, long term care locations edited to reflect long term acute care .

Protocol Revision: SSI

- Use SSI modifications for data beginning with January 2015 procedures.
- Changes (from summary document):
 - The January 2015 definition change for NHSN inpatient and outpatient operative procedure was rescinded. These definitions were updated in the protocol, Table of Instructions, and Forms CDC 57.120 and CDC 57.121. NHSN users were notified via the 2/3/15 release notes.

BSI Reporting: New Tool

- New Tool in Determining Secondary Bloodstream Infection (BSI)
 - Listing of all NHSN infections that contain positive blood culture as a criteria
 - Helpful in applying the Secondary BSI Guide when distinguishing primary from secondary BSIs.
 - Published as Appendix 1: Secondary BSI Guide in the April manual.

NHSN Newsletter FAQ

Can you clarify the definition of a 24-hour observation unit?

- The definition of an observation unit, as stated in Chapter 15 of the protocol, is as follows: *Area where patients are monitored for suspected or non-life threatening conditions for 24 hours or less. More than 50% of patients in this location must be outpatients who are not expected to be admitted to an inpatient unit.*
 - This means that if at least 80% of patients in this unit are housed here for 24 hours or less, the unit meets the definition of a 24 hour observation unit. Furthermore, the majority (50%) of patients in this unit should be considered outpatients who are expected to be discharged directly from this unit.

NHSN Newsletter FAQ

What admission date should be entered when a patient is admitted into my acute care hospital?

- The admission date should reflect the date in which the patient was physically admitted into the inpatient location. If the patient was cared for in an emergency department (ED) or 24-hour observation location only, an admission date will not be entered into the NHSN application, and will be considered an encounter (i.e., visit) for that outpatient location.

NHSN Newsletter FAQ

What admission and discharge date should be entered when the patient is admitted into a separately licensed CMS inpatient rehabilitation facility (IRF) that is located inside of my acute care hospital?

- For NHSN purposes, if the IRF is set up as a patient care location within the acute care hospital, movement between the acute care hospital and the IRF location should not be counted as a separate facility discharge and admission. Instead, these movements should be considered location transfers and counted as one admission and one discharge from the acute care hospital. Therefore, the facility admission date for a LabID event for a patient in an the IRF should reflect the date the patient was physically admitted into either the inpatient location for the acute care hospital or the IRF location, whichever comes first during that patient stay.

NHSN Newsletter FAQ

How do I determine Date of Admission?

- NHSN uses the date of admission to discriminate between an infection that is present on admission (POA) and an infection that is healthcare-associated infection (HAI). When applying the date of admission for this purpose, use the date that the patient is **physically admitted to an inpatient location**. For instance, a patient may present to an emergency department (ED), be assessed and ordered by a physician to be admitted to the hospital. If the hospital has no available inpatient beds, the patient may remain in the ED overnight or longer. In such a case, the date of admission for NHSN surveillance purposes will be the actual date that the patient is physically moved to the inpatient location. This date will be the first date for determining infections that are POA vs HAI, as well as the first day for device-day counts such as central line days, urinary catheter days or ventilator days.

NHSN Newsletter FAQ

Should cultures that are collected from patients who are dead by neurological criteria, but whose respiration and perfusion is being maintained until organs may be harvested for donation, be included in infection surveillance and reporting to NHSN?

- Yes. Infection prevention efforts in this patient population are important to prevent transmission of infection to the organ recipient. While perhaps thought of differently than traditional “patient care” it remains that preventing infections in this patient population is an important healthcare quality issue and such patients should be included in any HAI surveillance that is performed.

MI User FAQ

When I am conferring rights to the SHARP Unit, there is an error message for FacWideIn and FacWideOut reporting that states, “No locations meet criteria”. What does this mean?

- This is an error in the application. Facilities can ignore it. It has no bearing on the rights conferral.

MI User FAQ

I collected a *C.diff* specimen in the ED on 1/19/2015. The patient stayed in the ED until admitted on 1/20/2015. When I enter the admission date, I receive this error, “Date Admitted to Facility must be <=Date Specimen Collected”. Why can’t I enter this?

- Since ED reporting should include all qualifying tests regardless of patient admission status, and because the ED is an outpatient location, the NHSN application is designed to not expect an admit date on any outpatient event. You should just leave the admit date blank when entering an ED based LabID event. The application should accept the event this way.

MI User FAQ

I entered 2015 *C.diff* and MRSA bac LabID events, then generated a new data set. When I ran the Report Rate Table – All MRSA LabID Events by Location, it is missing data. Why am I receiving an incomplete report?

- There is (was?) a technical defect in the system that is preventing the display of FacWideIn level rates for MRSA bacteremia in 2015. NHSN developers have been alerted and are working on fixing.

Presenting Data to Leadership

- Rates over time
- SIRs (particularly CMS SIRs)
- TAP Reports

Michigan ELC Ebola supplemental grant

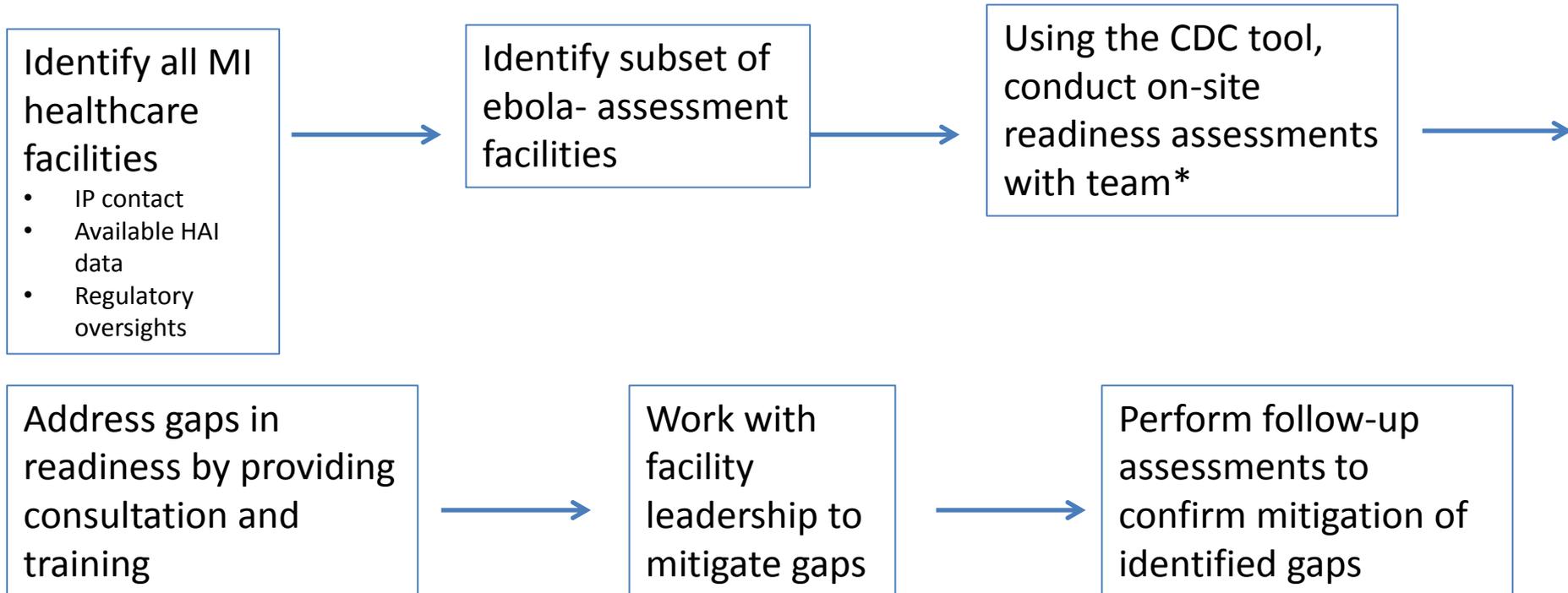
A 3 year plan



Overview

- Develop an Infection Control Assessment and Promotion (ICAP) Program
 - Expands and coordinates current infection prevention and preparedness activities and efforts across various state agencies, offices and divisions
- 4 sub-projects
 - Ebola/Special Pathogen Readiness (2 year)
 - Outbreak Reporting and Response (2 years)
 - General Infection Prevention Assessments (3 years)
 - NHSN Enhanced Surveillance (3 years)
- Foci
 - Define and apply infection prevention standards in various healthcare settings.
 - Ensure standardized policies
 - Promote early assessment
 - Promote active interventions
 - Achieve best practices in all healthcare settings across the state

Timeline for facility readiness assessments



*Members of the assessment team include SHARP, OPHP, BOL, LARA

Outbreak Reporting and Response in Healthcare Facilities

- Healthcare-associated infections (HAIs) are not reportable in MI. Many times public health does not hear about them
- SHARP will work with facilities to introduce a standardized outbreak assessment tool and determine strengths/weaknesses of facility outbreak detection and response

NHSN Enhanced Surveillance

- Use NHSN to monitor HAIs
 - CLABSI
 - CAUTI
 - SSI
 - LabID Events (MRSA and CDI)
- Using this data, generate individualized facility reports including targeted areas for prevention (TAP) reports
- This surveillance will improve situational awareness and help target prevention programs

Long term goals

- NHSN enhanced surveillance and standardized outbreak reporting of facility level outbreaks will lead to more specific response plans for emerging threats
- Develop sustainable training program for infection preventionists to close gaps and strengthen infection control capacity at all facilities
- Increased collaboration between MDCH (LARA, OPHP, SHARP), healthcare facilities, professional organizations (APIC-GL, MSIPC) and HAI advisory group



Questions?

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