

MDHHS SHARP NHSN USERS CONFERENCE CALL
Wednesday, March 23rd, 2016

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 May 25th, 2016.**

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.

General SHARP Updates

Jennie Finks and Noreen Mollon updated the group on HRET and current outbreaks.

Update on Surveillance and Reports

Allie informed the group that 105 hospitals are currently sharing data with the SHARP Unit via NHSN and provided a breakdown of facility types.

Allie reviewed the 2015 Q2 and Q3 State and Regional TAP Reports. Hospitals should have received 2015 Q2 individual reports and will be soon receiving 2015 Q3 reports. The 2013 Q3 aggregate report will be posted online soon.

NHSN Updates

Allie presented a powerpoint (below) containing information on 2016 NHSN protocol changes and answering FAQs from hospitals.

CRE Surveillance and Prevention Initiative

Brenda Brennan provided an update on the CRE initiative, also provided in the attached powerpoint. 2015 Q3 and Q4 reports are provided in these minutes as well.

Next Meeting

The next SHARP Unit NHSN conference call is scheduled for May 25th, 2016 at 10:00am.

NHSN User Group Call

March 23, 2016

MDHHS SHARP

www.michigan.gov/hai

SHARP Updates

- MDHHS-MHA-MPRO Collaboration Update (HRET)
 - Jennie
- MDHHS SHARP Outbreak Update
 - Noreen

Surveillance Initiative

MDHHS SHARP Hospitals

- 105 hospitals have signed Data Use Agreement (63% of MI hospitals)
 - 79% of Michigan Acute Care Hospitals are participating
 - 50% of Michigan Critical Access Hospitals are participating
 - 25% of Michigan Rehab Hospitals are participating
 - *0% of Michigan Long-Term Acute Care Hospitals are participating*
- Receive data from 101 hospitals in NHSN

2015 Q2 Aggregate Data Highlights

2015 Q2 Targeted Assessment for Prevention Report						
NHSN Module	Number of Facilities ¹	Location	SIR ²	Significant (Y/N) ³	CAD ⁴	Prevented or Need to Prevent
CAUTI	94	All	0.6	Y	-42.8	Prevented
	79	ICU	0.7	----	-12.5	Prevented
	83	Ward	0.5	----	-30.3	Prevented
CLABSI	92	All	0.5	Y	-4.3	Prevented
	60	ICU	0.5	----	-2.4	Prevented
	59	Ward	0.5	----	3.6	Need to Prevent
	15	NICU	0.2	----	-5.6	Prevented
CDI	91	Facility-wide	0.83	Y	124.7	Need to Prevent
MRSA Bac	91	Facility-wide	0.94	N	15.6	Need to Prevent
SSI COLO	87	----	1.11	N	27.7	Need to Prevent
SSI HYST	87	----	0.91	N	3.4	Need to Prevent

¹Note: facilities in which an SIR could not be calculated with a CAD of 0 were excluded from this table
²SIR: 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.
³Significant (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). Significance testing was only performed on overall SIRs, not location-specific.
⁴CAD=Cumulative Attributable Difference. The number of infections that your hospital either needs to prevent to meet the HHS target or has prevented beyond the HHS target.
HHS CAUTI Target SIR = 0.75, HHS CLABSI Target SIR = 0.5, HHS CDI Target SIR = 0.7, HHS MRSA bacteremia Target SIR = 0.75, HHS SSI Target SIR = 0.75

2015 Q2 Regional Data Highlights

- Significant SIRs:
 - Region 1 CDI CMS SIR was significantly less than 1 (0.628)
 - Region 2N CDI CMS SIR was significantly less than 1 (0.755)
 - Region 2S SSI HYST CMS SIR was significantly less than 1 (0.00)
 - Region 5 CDI CMS SIR was significantly less than 1 (0.737)
 - Region 6 SSI COLO CMS SIR was significantly greater than 1 (1.765)

2015 Q3 Aggregate Data Highlights

2015 Q3 Targeted Assessment for Prevention Report						
NHSN Module	Number of Facilities ¹	Location	SIR ²	Significant (Y/N) ³	CAD ⁴	Prevented or Need to Prevent
CAUTI	96	All	0.7	Y	-13.9	Prevented
	77	ICU	0.7	----	11.6	Need to Prevent
	87	Ward	0.6	----	-25.5	Prevented
CLABSI	94	All	0.6	Y	24.44	Need to Prevent
	59	ICU	0.6	----	15.7	Need to Prevent
	61	Ward	0.6	----	8.9	Need to Prevent
	15	NICU	0.5	----	-0.2	Prevented
CDI	88	Facility-wide	0.87	Y	150.46	Need to Prevent
MRSA Bac	90	Facility-wide	0.86	N	8.3679	Need to Prevent
SSI COLO	81	----	0.94	N	14.974	Need to Prevent
SSI HYST	75	----	1.31	N	11.969	Need to Prevent

¹Note: facilities in which an SIR could not be calculated with a CAD of 0 were excluded from this table
²SIR: 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.
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⁴CAD=Cumulative Attributable Difference. The number of infections that your hospital either needs to prevent to meet the HHS target or has prevented beyond the HHS target.
HHS CAUTI Target SIR = 0.75, HHS CLABSI Target SIR = 0.5, HHS CDI Target SIR = 0.7, HHS MRSA bacteremia Target SIR = 0.75, HHS SSI Target SIR = 0.75

2015 Q3 Regional Data Highlights

- Significant SIRs:
 - Region 1 CDI CMS SIR was significantly less than 1 (0.644)
 - Region 3 CDI CMS SIR was significantly less than 1 (0.640)

NHSN Updates

NHSN Patient Safety Component Manual

- Now posted to download and print as a single document on the NHSN website
- Found in the “related links” section on many of the NHSN pages

Error Exporting CMS Reports

- Noticed an error exporting CMS datasets in early February
- This bug has now been fixed

LTCF Component UTI Protocol

- Only for **long-term care facility** users (email from CDC):
 - We recently identified an error in the **Urinary Tract Infection (UTI) Event protocol for Long-term Care Facilities** that required immediate correction. The error involved surveillance language for urine cultures collected from **indwelling catheter** specimens. The correct surveillance language should reflect *"specimen collected from indwelling catheter and positive culture **with any microorganism**, at least one of which is bacteria of $\geq 100,000$ CFU/ml."*
 - The only changes made to the Urinary Tract Infection (UTI) Event protocol for 2016 were outline in the [Long-term Care Facility \(LTCF\) Component Protocol Updates for January 2016](#), which includes the following:
 - Presence of a fever, even if due to another cause, should still be counted as part of meeting a UTI definition. This change to the protocol is being made to remove subjectivity about whether a fever is attributable to a UTI event.
 - Yeast and other microorganisms, which are not bacteria, will no longer be accepted as UTI pathogens.
 - If you have already printed the January 2016 UTI protocol, please discard the printed protocol and revisit the NHSN LTCF website for the corrected version of the [January 2016 UTI Event for Long-term Care Facilities protocol](#). The protocol correction does apply retrospectively to CA-SUTI and ABUTI events identified on January 1, 2016 and later. If you've already reported CA-SUTI and/or ABUTI events in the NHSN application for this calendar year, please review these events to verify criteria are still met.

2016 NHSN Live Training

- Took place in late February/early March
- Highlighted 2016 changes, TAP reports, re-baselining, antimicrobial resistance
- I don't see recordings available yet online, but believe they should be posted
- I did not attend live but listened in the background. Is there anything anyone would like to discuss from the training??

2016 NHSN Highlights

- Salmonella removed as BSI pathogen
 - Highly unlikely that it would cause a primary BSI
- Two exceptions in which a patient may meet CLABSI definition, but not report:
 - Medical record documents that patient was observed or expected to have injected into line during infection window period
 - Patient has central line but also infected non-central line, vascular access site with pus and organism testing positive for at least one matching organism
 - Must be collected during infection window period
- If reported, mark central line “no”

Present at Time of Surgery (PATOS)

- Patient doesn't have to meet NHSN definition at the time of primary procedure but there must be notation that there is evidence of an infection or abscess present at the time of surgery
- If event meets PATOS, do I still have to report as an SSI?
 - Yes, must report but check yes for PATOS
 - It only applies if it corresponds to the same depth of SSI that is being attributed to the procedure
 - Currently, all PATOS are included in the SIR if wound closure is primary
 - PATOS will be evaluated for exclusion from future SSI SIRs calculated on the 2015 baseline

SAAR

- Standardized Antimicrobial Administration Ratio
 - Like SIR, but for antimicrobial use
 - Ratio of observed use to expected use
 - Five different models
 - Broad spectrum antibacterial agents predominantly used for hospital-onset/multidrug resistant infections
 - Broad spectrum antibacterial agents predominantly used for community-acquired infections
 - Anti-MRSA antibacterial agents
 - Antibacterial agents predominantly used for surgical site infection prophylaxis
 - All antibacterial agents
- Facilities that have submitted antimicrobial use data will be able to generate the SAARs for locations mapped as adult and pediatric medical, surgical, and medical/surgical ICUs and wards

2015 Re-baselining

- May use different models and control for new variables – waiting for all of 2015 data to be complete
- Will be available in early 2017 to use as a baseline for new analyses

Inpatient Psychiatric Facilities

IPF Enrollment Letter

- Many hospitals received a letter on Friday, March 4th regarding IPFQR reporting enrollment
 - Inpatient Psychiatric Facilities (and locations within a hospital that have a different CCN) will need to submit HCP Influenza Vaccination Data
 - Locations must enroll by indicating their separate IPF CCN within the location tab
 - Facilities were strongly encouraged to enroll by March 4th
 - Reporting deadline is May 15th, 2016 (for 2015-2016 flu season)
- Note: if you are reporting for an IPF with a different CCN, make sure to remove the patient days and admissions for this location in your inpatient reporting

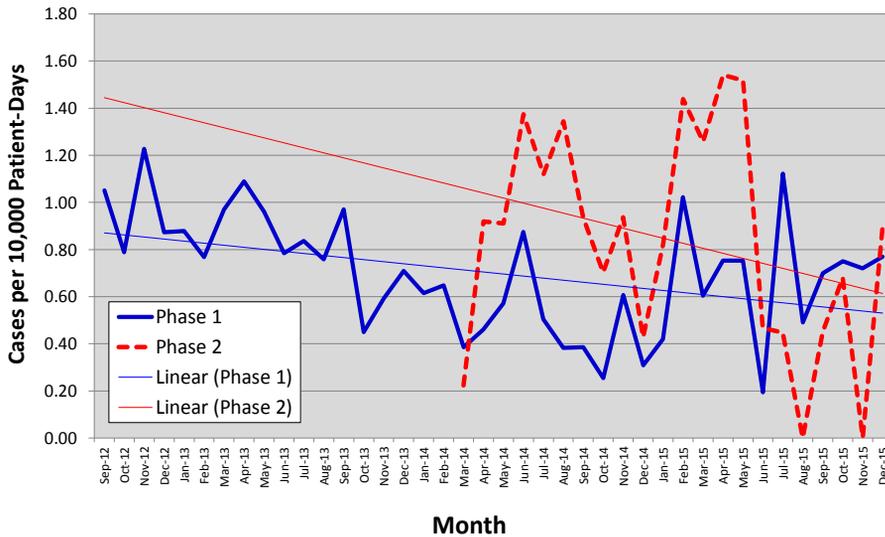
CRE Surveillance and Prevention Initiative Updates

CRE Surveillance and Prevention Initiative Past, Present, and Future

	Phase 1	Phase 2	Phase 3	Total
Time Period	September 2012 – August 2014	March 2014 – February 2016	September 2015 – August 2017	September 2012 – present
# Acute Care Facilities	17	7	4	28
# Long-Term Acute Care Facilities	4	2	4	10
# Long-Term Care Facilities	0	0	3	3
# CRE Prevention Plans	34	43	TBD	
Baseline Incidence Rate	0.93	0.94	TBD	
Post-Intervention Incidence Rate	0.65	0.88	TBD	
# Infections Prevented	86 (26 in LTACs)	110* (16 in LTACs)		196 (42 in LTACs)

* Data as of December 2015

CRE Incidence in Michigan — All Facilities September 2012—December 2015



Regional CRE Incidence Reports

- CRE incidence by region
 - East, West, Mid-north, LTACs
- Notable carbapenemase activity
- **Developed specifically for facilities NOT participating in the initiative**
 - Expand regional awareness of CRE incidence and novel carbapenemase activity
- Distributed quarterly
 - **2015 Q3 and Q4 currently available !**

Expanded CRE Testing Capabilities

- PCR primers currently available
 - KPC and NDM-1
 - **VIM and OXA-48 (Coming soon!!)**
 - March-April 2016
- **CRE isolates of high-risk patients can be confirmed at BOL**
 - International travel (w/wo healthcare exposure)
 - Multiple healthcare exposures and comorbidities

National Reports

Vital Signs

- Overview
 - Three critical efforts to prevent an HAI
 - Prevent infections related to surgery or placement of a catheter
 - Prevent spread of bacteria between patients
 - Improve antibiotic use
 - Nationally in acute care hospitals
 - 1 in 5 CLABSIs, 1 in 10 CAUTIs, and 1 in 7 SSIs were caused by urgent or serious antibiotic-resistant threats
 - 9 in 10 patients diagnosed with *C.diff* are related to healthcare
- <http://www.cdc.gov/vitalsigns/protect-patients/index.html>

Prevention Status Reports

- Interactive map containing all 50 states plus the District of Columbia
- Provides statistics on 10 different public health problems and concerns, including HAIs
- Michigan summary can be found here:
<http://wwwn.cdc.gov/psr/?state=Michigan>

FAQs

SSI Procedures: Linelist doesn't match SIR

- Sometimes there are more procedures in the linelist than in the SIR
- Scroll down to bottom of SSI SIR output that shows incomplete and custom procedures not included in the SIR
- This can happen because:
 - Certain procedures are excluded from the SIR (always review the footnotes!). This is especially true for CMS SIRs
 - Only procedures with primary closure will be included in SIR
 - Procedures that could be related to data quality issues are excluded
- 7 minute training on SSI Exclusion Criteria for SIR:

<https://www.youtube.com/watch?v=2zKqpSrZVAU&feature=youtu.be>

Inclusion and Exclusion SSI SIR Criteria

Inclusion and Exclusion Criteria by SSI Model			
Includes:	ALL SSI	Complex A/R	Complex 30day
All NHSN procedure categories	✓	✓	COLO and HYST
Outpatient procedures	✓		
Pediatric patients	✓	✓	
Superficial incisional primary SSIs	✓		
Deep incisional primary (DIP) SSIs	✓	✓	✓
Organ/space (O/S) SSIs	✓	✓	✓
DIP and O/S SSIs identified >30 days after procedure (per protocol)	✓	✓	
SSIs detected on current admission (A)	✓	✓	✓
SSIs detected on follow-up admission to same facility (RF)	✓	✓	✓
SSIs detected on follow-up admission to <u>different</u> facility (RO)	✓		✓
SSIs detected through post-discharge surveillance efforts (P)	✓		✓

SSI Footnotes

- CMS SSI Footnote:

Includes in-plan, inpatient COLO and HYST procedures in patients ≥ 18 years of age.
 Includes SSIs with an event date within 30 days of the procedure date.
 Excludes all Superficial Incisional SSIs and Deep Incisional Secondary (DIS) SSIs.
 Includes only procedures and associated SSIs that are reported with primary closure technique.
 Lower bound of 95% Confidence Interval only calculated if infCount > 0. SIR values only calculated if numExp ≥ 1 .
 Source of aggregate data: 2009-2008 NHSN SSI Data
 Data contained in this report were last generated on March 21, 2016 at 9:44 AM.

- Overall SSI

If infCount in this table is less than you reported, aggregate data are not available to calculate numExp.
 Excludes Superficial Incisional Secondary (SIS) and Deep Incisional Secondary (DIS) SSIs.
 Includes only procedures and associated SSIs that are reported with primary closure technique.
 Lower bound of 95% Confidence Interval only calculated if infCount > 0. SIR values only calculated if numExp ≥ 1 .
 Source of aggregate data: 2009-2008 NHSN SSI Data
 Data contained in this report were last generated on March 21, 2016 at 9:44 AM.

CDI Reduction Tips

- We received a request for collaboration on CDI reduction tips. If you have anything you would like to share, please email it to murada@michigan.gov and I can bring it up on the next call
- New CDI Prevention Primer Toolkit available at: http://www.cdc.gov/HAI/prevent/prevention_tools.html#cdi

C.diff Quarterly Test Type

- Reminder: indicate *C.diff* test type each quarter
- To analyze different test types you have used each quarter, you can follow the handout MPRO has provided (available in the file share)
 - Test type can greatly impact the SIR, so please report this carefully!
Avoid selecting “other” if at all possible

Questions?

Allison Murad
MDHHS SHARP Unit
murada@michigan.gov
517-335-8199

- Next call: Wednesday, May 25th at 10 am
- Upcoming presentations: I will be presenting on TAP methodology at the next APIC-GL meeting, Friday, April 29th

SAVE THE DATE!

What? APIC-Great Lakes SPRING meeting

When? Friday, April 29th 8:30am-3:30PM

Where? The English Inn (Eaton Rapids, MI)

Cost? Members \$30/Non-Members \$35

Vendors welcome! *LIMITED tables*

For more information: Priscilla.Bercea@Beaumont.org

APIC National Lottery: 2 spots will be raffled!



**Registration forms will be sent out in the next week*

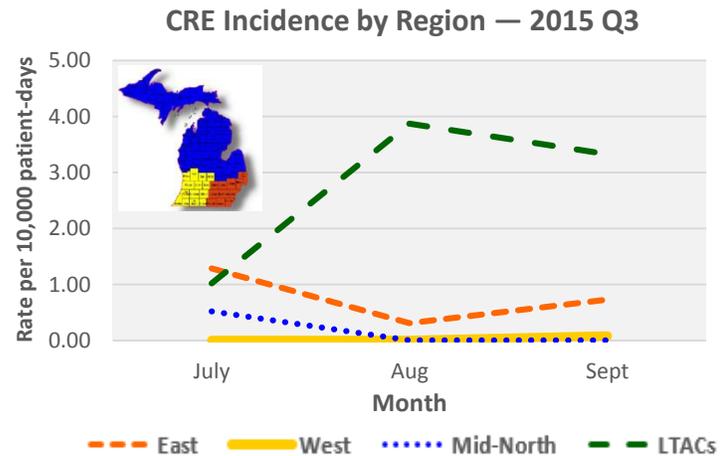
MICHIGAN REGIONAL CRE INCIDENCE REPORT 2015 QUARTER 3 (July–September)

The following data are from the Carbapenem-resistant *Enterobacteriaceae* (CRE) Surveillance and Prevention Initiative coordinated by the Michigan Department of Health and Human Services (MDHHS). The report reflects regional CRE incidence from facilities voluntarily reporting cases of CRE, specifically *Klebsiella pneumoniae* and *Escherichia coli*, according to the initiative’s surveillance definition. Novel carbapenemase activity, if any detected, will be reported below.

CRE INCIDENCE IN MICHIGAN

The number of facilities, total events, total number of patient-days and overall Q3 CRE incidence rates per 10,000 patient-days stratified by **region** (acute care facilities) or **long-term acute care** (LTAC) facilities

Region	Number of Facilities	Total Events	Total Patient-days	Q3 Overall Rate
East	15	32	368,062	0.78
West	5	1	122,029	0.03
Mid-North	4	2	106,786	0.17
LTACs	6	5	17,117	2.74
Statewide	30	40	613,994	0.65



NOVEL CARBAPENEMASE ACTIVITY IN MICHIGAN — 2015

The novel carbapenemase activity below was detected in SE Michigan

Carbapenemase	OXA-48	NDM-1	NDM-1	OXA-48
Date collected	3/17/2015	8/10/2015	8/21/2015	10/9/2015
Organism	<i>Klebsiella pneumoniae</i>	<i>Klebsiella pneumoniae</i>	<i>Proteus mirabilis</i>	<i>Klebsiella pneumoniae</i>
Specimen source	Urine	Urine	Urine	Rectal Swab
Patient age / sex	78 y/o M	74 y/o M	79 y/o M	45 y/o F
Travel history	None	Yes — Romania	Yes — Philippines	Yes — India
Previous healthcare exposures	Yes, bounced between the acute care hospital and long-term care facility (subacute rehab services) December 2014–March 2015	Yes, seen in Romania (late June 2015) for urinary obstruction, multiple admissions to neighboring Michigan hospitals	None	Yes, previous hospitalization and mitral valve replacement with a St. Jude’s mechanical valve in India (July 2015). Patient was admitted to local acute care hospital due to endocarditis and CRE pneumonia
Comorbidities	Peripheral vascular disease, congestive heart failure, chronic obstructive pulmonary disease, chronic kidney disease stg3, recurrent osteomyelitis, diabetes and multiple amputations. Most recent hospitalization: pulmonary embolism, influenza and severe sepsis (due to knee amputation)	History of urinary tract infections and renal failure	None reported	Renal failure, cardiovascular disease

MICHIGAN REGIONAL CRE INCIDENCE REPORT 2015 QUARTER 4 (October–December)

The following data are from the Carbapenem-resistant *Enterobacteriaceae* (CRE) Surveillance and Prevention Initiative coordinated by the Michigan Department of Health and Human Services (MDHHS). The report reflects regional CRE incidence from facilities voluntarily reporting cases of CRE, specifically *Klebsiella pneumoniae* and *Escherichia coli*, according to the initiative’s surveillance definition. Novel carbapenemase activity, if any detected, will be reported below.

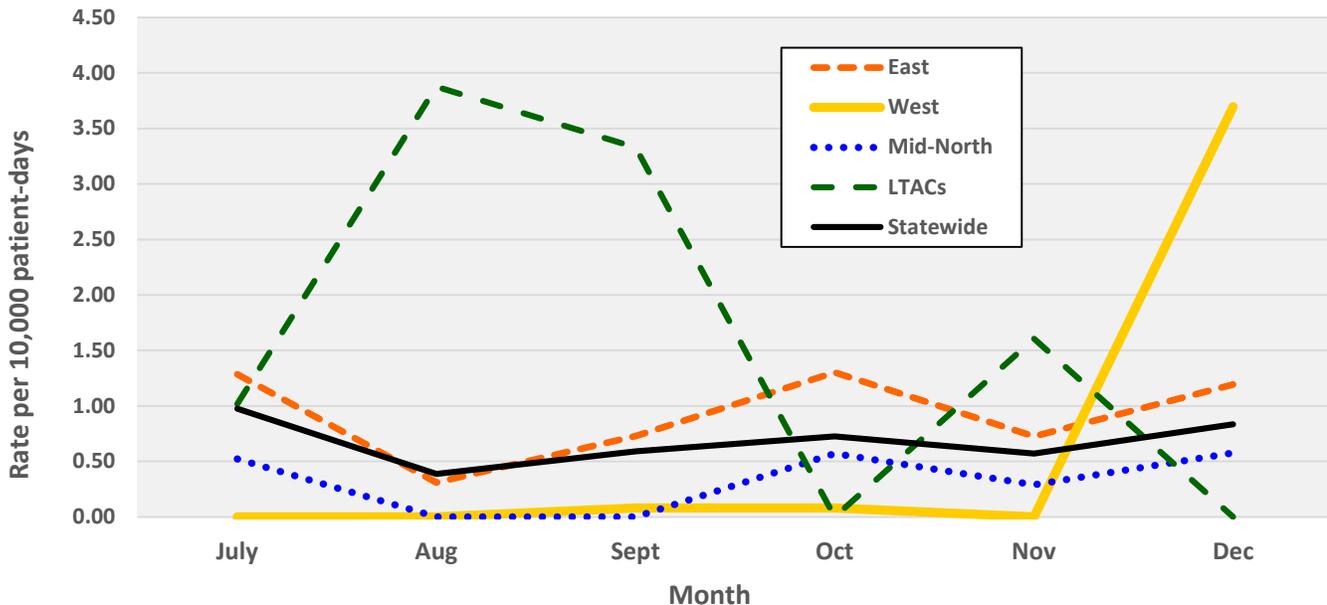
CRE INCIDENCE IN MICHIGAN

The number of facilities, total events, total number of patient-days and overall Q4 CRE incidence rates per 10,000 patient-days stratified by **region** (acute care facilities) or **long-term acute care** (LTAC) facilities

Region	Number of Facilities	Q4 Total Events	Q4 Total Patient-days	Q4 Overall Rate (Q3 Overall Rate)
East	15	33	361,456	1.03 (0.78)
West	5	4	120,984	1.26 (0.03)
Mid-North	4	2	106,786	0.17 (0.17)
LTACs	6	2	17,493	0.54 (2.74)
Statewide	30	44	603,270	0.73 (0.65)



CRE Incidence by Region — 2015



NOVEL CARBAPENEMASE ACTIVITY IN MICHIGAN — Q4 2015

No novel carbapenemase activity was detected in Michigan during Q4.