

# 2019 YEAR IN REVIEW

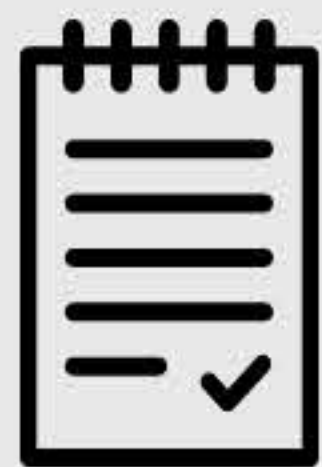
## WHAT WE'VE BEEN UP TO



## Michigan's AMR Impact

The U.S. government's Antimicrobial Resistance (AMR) Challenge is a yearlong effort to accelerate the fight against antimicrobial resistance across the globe. The Michigan Department of Health and Human Services (MDHHS) participated in the AMR Challenge September 2018 through September 2019. MDHHS responded to 40 cases of novel resistance. Thanks to rapid detection, communication, and response, the interval from case notification to the start of the investigation was less than 16 hours. With carbapenemase-producing carbapenem-resistant Enterobacteriaceae (CP-CRE) becoming reportable in 2018, Michigan strengthened its detection and response to CP-CRE, with 270 confirmed cases reported and 2,697 isolates submitted for confirmatory testing. As antimicrobial resistance is a moving target, MDHHS is committed to doing our part and continuously driving down resistance, preserving antimicrobials and protecting patients.

Conducted



**25**  
ICARs

**59**

Containment  
Responses



**11** HAI  
Investigations

Conducted Infection Control Assessment and Response (ICAR) with 25 healthcare facilities

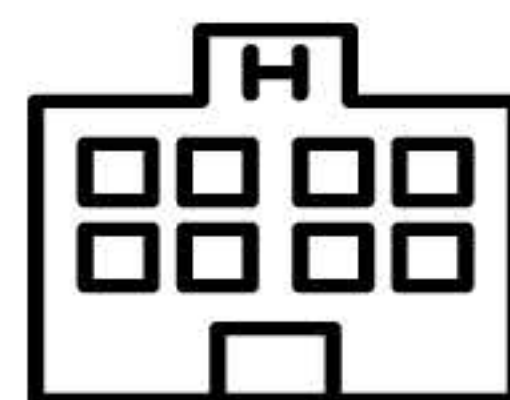
## ICAR Take Away Messages

No program is perfect.

Focus on competency based education both upon hire and annually.

Infection Prevention involves many disciplines - get to know your partners!

**9**



Critical Access & Acute Care

**14**



Long Term Care

**2**



Outpatient





SHARP Symposium, June 25, 2019, Kalamazoo, Michigan.

## Events

### SHARP Symposiums

The Surveillance for Healthcare-Associated & Resistant Pathogens (SHARP) Unit hosted regional meetings from May through July. Over 100 professionals representing local health departments, outpatient, long-term care and acute-care facilities attended the symposiums. The symposiums were an opportunity for attendees to learn about ongoing antibiotic resistance activities and receive healthcare associated infections resources such as the **HAI common Acronyms and Phrases Quick Reference**.

### CRE Conference

The CRE Surveillance and Prevention Conference was held June 11, 2019, at the Inn at St. John's in Plymouth, Michigan. 112 attendees came together to hear the latest information on CRE; with emphasis on epidemiology, diagnostic methods, containment and response, novel resistance, treatment/new agents, and the importance of infection prevention.

### AMR Summit

The One Health Antimicrobial Stewardship Summit was held September 18, 2019, at Lovett Hall - The Henry Ford in Dearborn, Michigan. The goal of the summit was to create awareness and improve antimicrobial stewardship in Michigan through engagement of key partners to explore a One Health approach. Nearly 60 professionals from various disciplines were in attendance. The connections made at the summit will be used to develop a Michigan-specific Action Plan for Combating Antibiotic Resistant Bacteria that encompasses all disciplines in One Health. **Contact Anne Haddad at [HaddadA3@Michigan.gov](mailto:HaddadA3@Michigan.gov) for more details.**

Presentation slides for the Symposiums, CRE Conference and AMR Summit can be found at [Michigan.gov/HAI](http://Michigan.gov/HAI) under resources.

## Webinars

### 2018 HAI Annual Report - Webinar & Publication

On November 25, 2019 the SHARP unit hosted a HAI Annual Report Webinar. SHARP Unit Intern Libby Reeg and NHSN Epidemiologist Elli Stier, MPH summarized the 2018 report design and preliminary data. **Presentation slides can be found at [Michigan.gov/HAI](http://Michigan.gov/HAI).**

The report includes statewide HAI counts, rates and SIRs and is divided into five sections with one description of hospitals and surveillance overview and five modules:

- o MDRO/CDI
- o Device-Associated Infections
- o Procedure-Associated Infections
- o Antimicrobial Use
- o CP-CRE

The 2018 HAI Annual Report is scheduled to be published Spring 2020.

### NHSN Group Users Webinars

The SHARP Unit hosted five NHSN Group Users Webinars in 2019. Topics included changes and new features of NHSN, HAI Tracker and SHARP Unit updates. Presentations are available on our website. **Webinars will continue in 2020 beginning Wednesday, February 26, at 10 a.m.**



AMR Summit, September 18, 2019, Dearborn, Michigan.



# Partnerships

## Communities of Care Initiative - Closeout

The Communities of Care Initiative came to a close in 2019. The two communities consisted of an acute-care hospital, a long-term acute care hospital, and a skilled nursing facility in the same geographic area. Each facility developed an individual intervention plan related to *C.difficile* diagnostic stewardship. The efforts resulted in an average of 40 tests reduced each month in the two communities, with stable case rates. This adds confidence that diagnostic stewardship did not result in missing cases and patient care was maintained appropriately.

## Outpatient Antibiotic Prescribing - Future

Through collaboration and partnerships, the SHARP unit has gained access to several antibiotic use datasets. These data include antibiotic claims from Medicaid, Blue Cross Blue Shield of Michigan, and IQVIA, and well as inpatient antimicrobial use data in NHSN. The Antimicrobial Stewardship Subcommittee will review prescribing trends within these data sets to identify opportunities for improvement and develop interventions that address the needs of Michigan.

## CRE Surveillance & Prevention Initiative (CRE S & PI) - Transition

On August 1, 2019, the CRE Surveillance and Prevention Initiative, which started back in September 2012, officially ended. The initiative originally started with 20 facilities and eventually expanded to 61 facilities voluntarily reporting cases across the state. The main goals of the initiative were to reduce CRE incidence and prevalence, identify and implement best-practice recommendations across the healthcare continuum, and build regional partnerships within the healthcare and public health communities. The initiative accomplished all those things! The CRE Surveillance and Prevention Initiative was able to reduce CRE incidence (statistically significant reduction) and prevent 384 infections over the 7-year period.

A closeout survey distributed to CRE S & PI facilities reflected continued interest in other initiatives focusing on carbapenem-resistant *Acinetobacter baumannii* (CRAB), carbapenem-resistant *Pseudomonas aeruginosa* (CRPA) or screening patients with a history of international travel/healthcare abroad for CP-CRE and *Candida auris*. The SHARP Unit will be taking all of this into consideration as they write for resources and funding this upcoming grant cycle (April-May 2020).

Though the initiative has officially ended, our work to reduce CRE incidence and prevalence will continue.

1. CP-CRE reporting, which became mandated January 1, 2018, will continue. Cases should be entered into the Michigan Disease Surveillance System (MDSS).
2. The CRE Partners in Prevention calls will still be held quarterly but have been re-named Antimicrobial Resistance (AR) Quarterly Calls and will be open to all facilities in Michigan.
3. The SHARP Unit will be requesting funding to hold an educational conference focused on antimicrobial threats in Summer 2021.

The SHARP Unit would like to sincerely thank all of the facilities that participated in the initiative. We look forward to working with you again very soon!

# Data, Data, Data

## CP – CRE Annual Report

The 2018 CP-CRE Annual Report describes the epidemiologic trends of CP-CRE in Michigan during the first year of required CP-CRE communicable disease reporting into the Michigan Disease Surveillance System. A total of 376 cases of CP-CRE were reported in 2018, with 159 (42 percent) being confirmed a carbapenemase producers. *Klebsiella pneumoniae* comprised 64 percent of all confirmed CP-CRE cases, followed by *Enterobacter cloacae* (16 percent), and *Escherichia coli* (14 percent). Most confirmed CP-CRE cases harbored a KPC gene (83 percent). Over 70 percent of all CP-CRE cases occurred in Southeast Michigan. **The full report is available for viewing and download at [Michigan.gov/HAI](https://Michigan.gov/HAI) in the reports and publications section.**

## HAI Tracker - Status

The SHARP Unit has been developing a web-based, publicly available, interactive HAI surveillance application. The dashboard will display data gathered from NHSN at statewide, regional and facility levels. Available metrics will include infection counts, infection rates, SIRs, SURs, CADs and trending data. Due to budget constraints this project has been placed on hold, but the project will be reassessed in 2020.

## Surveillance for Healthcare Associated Infections Unit



[MDHHS-SHARP@Michigan.gov](mailto:MDHHS-SHARP@Michigan.gov)



[Michigan.gov/HAI](https://Michigan.gov/HAI)