

ISSUE 1
JULY
2012

SHARP: Bringing HAIs into Focus

Surveillance of Healthcare-Associated and Resistant Pathogens Unit, Michigan Department of Community Health

www.michigan.gov/hai

SHARP NHSN Facility Recruitment

SHARP continues to recruit facilities to voluntarily join the MDCH SHARP HAI surveillance group. HAI data is shared with SHARP through the CDC's web-based National Healthcare Safety Network (NHSN). Facilities joining the MDCH SHARP Group on NHSN confer rights to the SHARP Unit after signing a Master Data Use & Confidentiality Agreement (DUA). The DUA ensures that the data will be kept confidential. SHARP aggregates the data submitted from hospitals, and releases hospital de-identified reports quarterly, semi-annually, and annually. Individual hospital reports are also developed semi-annually. To date, there are 70 hospitals that submit and share HAI data with SHARP, with additional hospitals joining periodically.

—Judy Weber,

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Welcome to the first SHARP Newsletter!

The Surveillance for Healthcare-Associated & Resistant Pathogens (SHARP) Unit was created to address the issues of healthcare-associated infections (HAIs) and multidrug-resistant organisms in Michigan. In September 2009, the SHARP Unit received funding through the American Recovery and Reinvestment Act (ARRA) to support its mission and activities. It was at this time that the SHARP Unit began conducting HAI surveillance through the National Healthcare Safety Network (NHSN), an online surveillance system developed by the Centers for Disease Control & Prevention (CDC) and used by hospitals across the US. The SHARP Unit has since received additional federal funding to continue and improve surveillance activities and to support infection prevention and activities.

SHARP recruits hospitals to share their NHSN data with MDCH, and in return shares HAI surveillance reports to show Michigan HAI trends and compare data with national statistics. SHARP facilitates the Michigan Healthcare-Associated Infection Prevention Advisory Group to ensure coordination and support of surveillance and prevention and control activities within the state. The SHARP Unit has also established multi-disciplinary collaboratives to address prevention of multidrug-resistant organisms including methicillin-resistant *Staphylococcus aureus* (MRSA), *Clostridium difficile* Infection (CDI), and carbapenem-resistant *Enterobacteriaceae* (CRE). Finally, they provide education and consultation regarding HAI and MDRO prevention.

This is the first newsletter we have released; we plan on releasing a new newsletter each quarter informing readers of recent SHARP and HAI activities including the latest HAI surveillance data, highlighting articles in the literature, and tracking the progress of the SHARP prevention initiatives. Welcome and happy reading!

Michigan Department
of Community Health



Rick Snyder, Governor
Olga Dazzo, Director



Partner Update

Sharing Data with MHA and VON

MDCH SHARP, with hospital permission, may release hospital-specific NHSN HAI data to the Michigan Health and Hospital Association (MHA) Keystone Center and/or the Michigan Vermont Oxford Network (VON) Neonatal Intensive Care Unit (NICU) Collaborative, thus eliminating the need for duplicate data entry (e.g. Care Counts) by hospitals. In order for this to occur, hospitals must share NHSN data with SHARP and sign a Third Party Data Use Addendum giving SHARP permission to release HAI data to MHA and/or VON.

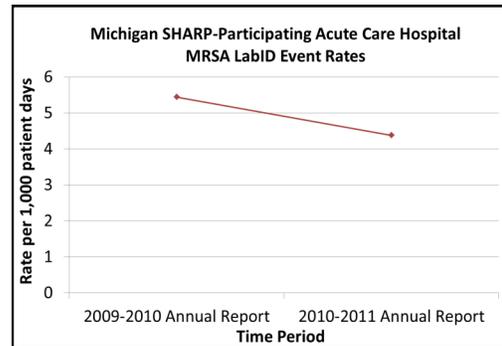
HAI Crosswalk

In demonstration of SHARP's commitment to coordinated statewide HAI activities, SHARP has collaborated with MPRO (Michigan's Quality Improvement Organization) and the Michigan Health and Hospital Association (MHA) to develop an HAI Prevention Crosswalk that describes the various HAI surveillance and/or prevention initiative activities undertaken by each organization. Find the Crosswalk on our website at www.michigan.gov/hai.

—Judy Weber,

WeberJ4@michigan.gov

SHARP NHSN HAI Data



The MRSA LabID rate decreased from 5.44 per 1,000 patient days to 4.38 per 1,000 patient days**. While this doesn't look like a major decrease on the graph (above left), it was a significant change from the previous annual report to the present.

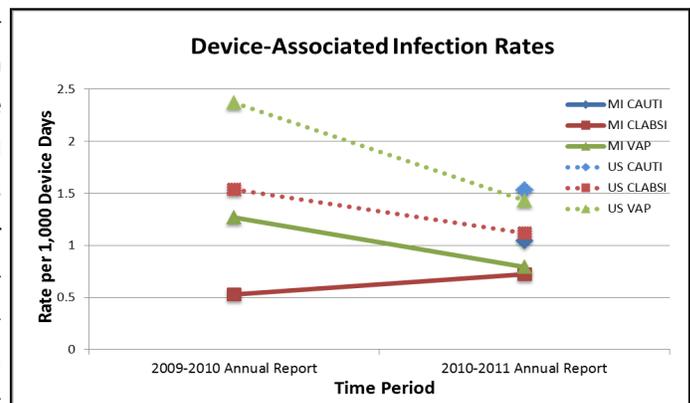
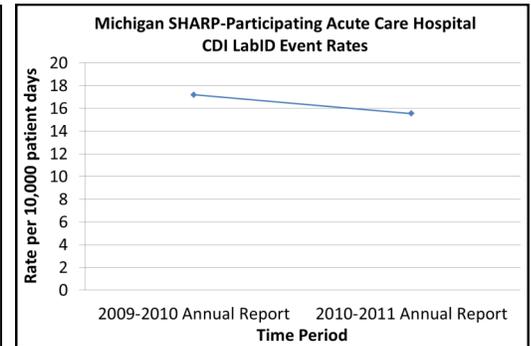
The CDI LabID rate decreased from 17.20 per 10,000 patient days to 15.55 per 10,000 patient days. While this was not statistically significant, it was a substantial decrease as demonstrated on the graph (above right).

The Michigan Central-Line Associated Bloodstream Infection (CLABSI) rate was less than the national average**. The MI CLABSI rate increased from 0.53 per 1,000 device days to 0.79 per 1,000 device days**. In the previous annual report, only 8 hospitals shared CLABSI data with the SHARP Unit. In the present

report, 51 hospitals reported CLABSI data. While the rate increase was statistically significant, it may be at least partially explained by the increase in the number of facilities reporting this measure.

The Michigan Catheter-Associated Urinary Tract Infection (CAUTI) rate was less than the national average**. While the CAUTI rate cannot be compared to a previous annual report (there was no CAUTI rate available in the 2009-2010 report), it should be noted that it was significantly less than the comparative national CAUTI rate.

The Michigan Ventilator-Associated Pneumonia (VAP) rate was less than the national average**. The VAP rate dropped from 1.27 per 1,000 device days to 0.79 per 1,000 device days. We will monitor the MI VAP rate closely to see if this reduction is sustainable. **Note: ** = statistically significant difference. The full 2010-11 SHARP HAI Report can be found at www.michigan.gov/hai**



—Allison (Gibson) Murad, MuradA@michigan.gov

MRSA/CDI Initiative Update

Site Visits

The MRSA/CDI Prevention Initiative is progressing nicely with acute and skilled nursing facilities from all eight Michigan Public Health Preparedness Regions enrolled. Regional site visits are currently underway with the facilities in each region. So far I have met with region 1, 2N, and 2S and plan on visiting the other regions by the end of July. Site visit meetings have been very helpful in understanding the multiple challenges acute care facilities and skilled nursing facilities face. The meetings have allowed networking and sharing of ideas, educational programs, and advice. I enjoy the opportunity to praise the facilities that are making progress in their action plans. To date, 1 skilled nursing facility in Region 3 dropped out of the initiative. We reviewed past applications in that region and secured another skilled nursing facility. They are in the process of completing required paperwork.

Data Collection and Reports

Facilities in the MRSA/CDI Initiative began submitting LabID event data to MDCH in May. As anticipated, it has not been easy getting all the facilities on schedule. We believe that once facilities better understand the routine, things will be much easier. The skilled nursing facilities seemed to have few problems with performing surveillance and submitting data. We plan on compiling the data and releasing reports to facilities next month. The initiative also plans on releasing a monthly



bulletin to keep our partners informed of the initiative's progress.

Assessment Tools

Our Prevention Initiative Epidemiologist resigned and we are actively recruiting applicants through the Michigan Public Health Institute (www.mphi.org). In the interim, our University of Michigan School of Public Health summer intern, Kate Manton, is doing a great job working with the facilities to complete reporting. In addition, Kate took over analysis of the 100 CDC Baseline Assessment Tools, and created tables and graphs of the responses which will be shared at our next Collaborative meeting.

Next Steps

A Collaborative retreat is being planned for September 14th at the English Inn in Eaton Rapids. During this meeting the collaborative will review the CDC Baseline Assessment Tools data and plan future activities for the prevention period of the initiative, including the format, subject matter, and frequency of trainings.

—Gail Denkins, DenkinsG@michigan.gov

In the Literature

The January 2012 issue of Clinical Infectious Disease published a fascinating article by Armellino et al. on hand hygiene (HH) auditing via third-party video surveillance. Direct observation indicated that the MICU's hand hygiene compliance was around 60%.

The researchers placed video cameras throughout the MICU to capture moments of HH when a motion detector was tripped by a healthcare worker. The video feeds were streamed to India where auditors recorded compliance. Unit staff were aware of the ongoing study.

Interestingly, the video surveillance indicated the 'true' HH compliance for the MICU was just 6.5% even though staff knew they were being watched.

HH compliance remained low until the researchers posted LED video boards throughout the unit showing the unit's HH rates in real-time. When the healthcare workers received data feedback, the HH rate jumped up to 82%.

The article shows the importance of data feedback. Collecting the data is only half the battle; determining how to use that data to engage staff and inspire change is just as crucial.

—Joseph Coyle,
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Carbapenem-Resistant *Enterobacteriaceae* Initiative Update

Save the Date

- 7/18— HAI Advisory Group Call
- 8/22— SHARP NHSN User Call
- 9/9-9/12— ICAAC, San Francisco, CA
- 9/14— MRSA/CDI Collaborative Retreat, Eaton Rapids, MI
- 10/11-10/12— MSIPC Conference, Lansing, MI
- 10/24-10/26— MSIPC Fundamentals, Dewitt, MI
- 10/17-10/21— ID Week, San Diego, CA
- 11/2— CRE Educational Conference, Plymouth, MI

Helpful Links

- www.michigan.gov/hai
- www.mhakeystonecenter.org
- www.mpro.org
- www.mi-marr.org
- www.msipc.org
- www.apic.org
- www.hhs.gov/ash/initiatives/hai/
- www.hospitalcompare.hhs.gov
- www.cdc.gov/nhsn
- www.cdc.gov/HAI/prevent/prevention.html
- www.cdc.gov/HAI/organisms/cre
- www.cdc.gov/HAI/organisms/cdiff/Cdiff_infect.html

Facility Recruitment

The Michigan Department of Community Health Carbapenem-Resistant *Enterobacteriaceae* (CRE) Surveillance and Prevention Initiative is about to begin recruitment of healthcare facilities. The collaborative group has met numerous times and have made considerable progress on finalizing surveillance definitions, data collection forms, and recruitment materials. Invitations to join the initiative were sent July 16th. We asked that facilities return Letters of Intent, along with a signed Data Use Agreement, to MDCH by August 17th. Baseline data collection begins September 1st.

CRE Educational Conference

All facilities in the initiative will be invited to attend a CRE Educational conference which will feature world-renowned experts on CRE testing, surveillance, prevention, and public health interventions. This conference will be held November 2nd at the Inn at St. John's in Plymouth.

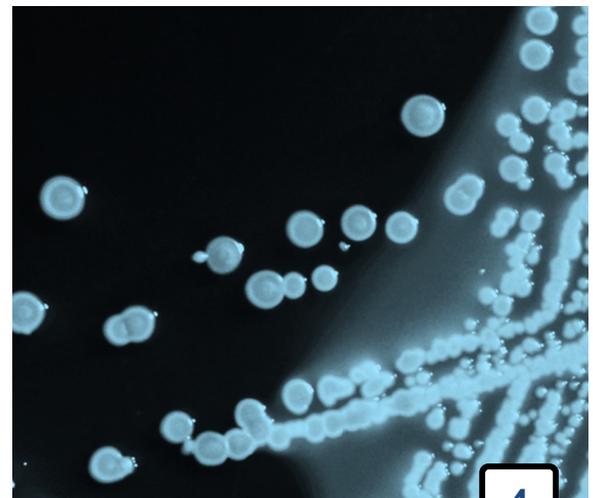
CRE Toolkit

The CDC has recently released a new CRE prevention and control toolkit designed to help facilities and health departments prevent CRE infections. The toolkit can be found at: www.cdc.gov/HAI/organisms/cre.

MI CRE Laboratory Detection and Infection Prevention Survey

Earlier this year we asked laboratorians and infection preventionists to complete an electronic survey focusing on the laboratory and infection prevention practices currently being used in Michigan healthcare facilities. The survey results were compiled and have proven to be very helpful in directing initiative efforts. An abstract was also submitted and accepted to be presented at the Inter-science Conference on Antimicrobial Agents and Chemotherapy (ICAAC) being held in San Francisco, CA September 9th-12th. Thanks to all the facilities who completed the survey. We look forward to presenting the great work of Michigan's healthcare facilities.

—Brenda Brennan,
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