



MISSISSIPPI STATE DEPARTMENT OF HEALTH

Methicillin-Resistant *Staphylococcus aureus* Bacteremia in Mississippi, 2014

Staphylococcus aureus is a bacterium that is regularly found on the skin of humans and can become resistant to antibiotics due to high medication use. *S. aureus* can become resistant to Methicillin, which is a member of the penicillin class of antibiotics and are usually used to treat *S. aureus*. Methicillin-resistant *S. aureus* (MRSA) is becoming more prevalent in communities and healthcare settings. MRSA can enter the bloodstream from an untreated localized MRSA infection or in healthcare settings during invasive procedures that break the skin and expose the bloodstream to the bacteria (i.e., bacteremia). MSDH follows healthcare onset (HO) and community onset (CO) MRSA bacteremia, which differ in the time between admission and specimen collection. Specimens that test positive for MRSA collected after three days of admission are considered to be HO and those collected within three days of admission are CO. By tracking both infection types, MSDH can assess all healthcare-associated MRSA bacteremia events and the prevalence of infections in the community. In 2014, only acute care facilities were required to report MRSA bacteremia to CMS, which started in January 2013.

Healthcare Onset (HO):

Number of Facilities that Reported at Least One Positive Blood Culture for MRSA: 41

Number of HO MRSA Bacteremia Infections Reported: 117

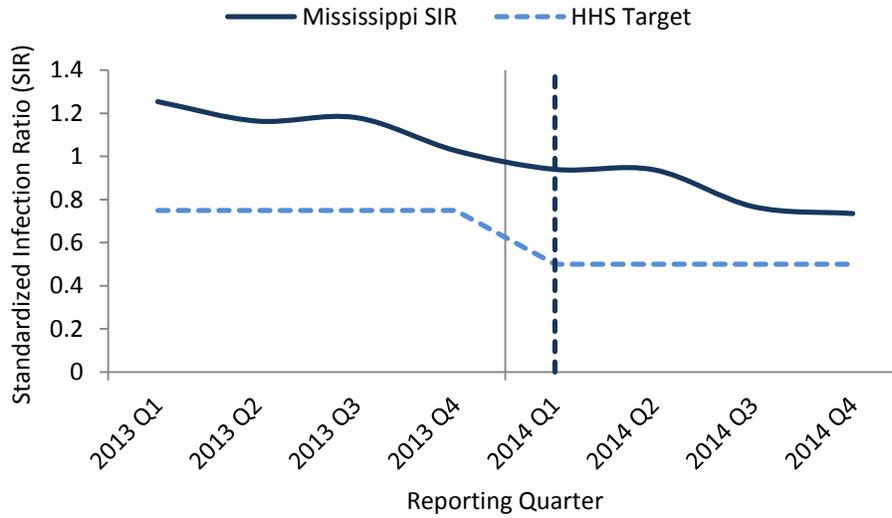
Infection Rate: 0.07 infections per 1,000 patient days

Comparison to 2010-2011 National Baseline: no significant difference

Comparison to 2013 Infection Rates: below (27%)

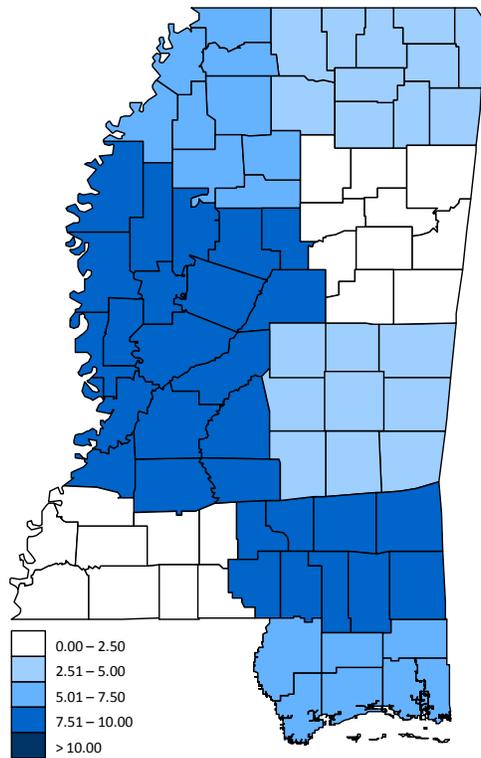
Comparison to HHS Target: above (68%)

Estimated Excess Costs Spent on Treatment of HO MRSA Bacteremia in 2014: \$4,401,891 - \$8,064,459



HO MRSA Bacteremia SIRs by Quarter, Acute Care Facilities, Mississippi, 2013-2014

*The original HHS Target (SIR=0.75) expired December 31, 2013.
 A proposal was made for a new Target in Fall 2013 (SIR=0.50).



HO MRSA Bacteremia Rates (per 1,000 patient days) by Public Health District, Acute Care Facilities, Mississippi, 2014

Community Onset (CO):

Number of Facilities that Reported at Least One Positive Blood Culture for MRSA: 41

Number of CO MRSA Bacteremia Infections Reported: 591

Infection Rate: 19.74 infections per 100,000 Mississippi residents

Comparison to 2013 Infection Rates: above (11%)

Estimated Excess Costs Spent on Treatment of CO MRSA Bacteremia in 2014: \$22,235,193 -
\$40,735,857

For more information on MRSA: http://www.cdc.gov/mrsa/pdf/SHEA-mrsa_tagged.pdf and <http://www.cdc.gov/HAI/organisms/mrsa-infection.html>

For more information on facility reporting of MDROs: <http://www.cdc.gov/nhsn/acute-care-hospital/cdiff-mrsa/index.html>