



MISSISSIPPI STATE DEPARTMENT OF HEALTH

***Clostridium difficile* Infections in Mississippi, 2014**

Clostridium difficile is a bacterium that can be found in the digestive tract of some individuals. Normally, the body can control the bacteria; however, with some diseases and high antibiotic use, healthy bacteria in the digestive system can be eliminated and *C. diff* can flourish and cause infections. *C. difficile* releases toxins that can irritate the intestines and cause further damage, and once outside the body, can be difficult to eliminate. *C. diff* infection (CDI) can be treated with antibiotics and fecal transplants. The bacteria can be transferred between patients in healthcare facilities through inappropriate use of personal protective equipment (PPE), including disposable gowns and gloves, and improper hand hygiene. Some symptoms of CDI include diarrhea and abdominal pain. MSDH follows healthcare onset (HO), community onset (CO), and community onset-healthcare facility associated (CO-HCFA) CDIs, which differ in the time between admission and specimen collection. Specimens that test positive for *C. difficile* collected after three days of admission are considered to be HO, those collected within three days of admission are CO, and those collected within three days of admission where the patient was discharged from the same facility within the past four weeks are considered CO-HCFA. By tracking all three infection types, MSDH can assess all healthcare-associated CDIs and the prevalence of infections in the community. In 2014, only acute care facilities were required to report CDI to CMS, which started in January 2013.

Healthcare Onset (HO):

Number of Facilities that Reported at Least One Positive *C. difficile* Result: 50

Number of HO CDIs Reported: 792

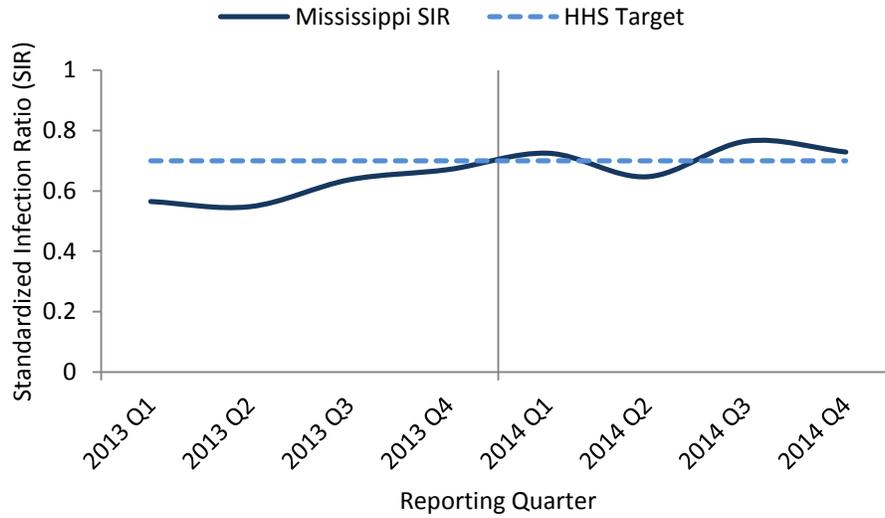
Infection Rate: 0.49 infections per 1,000 patient days

Comparison to 2010-2011 National Baseline: below (28%)

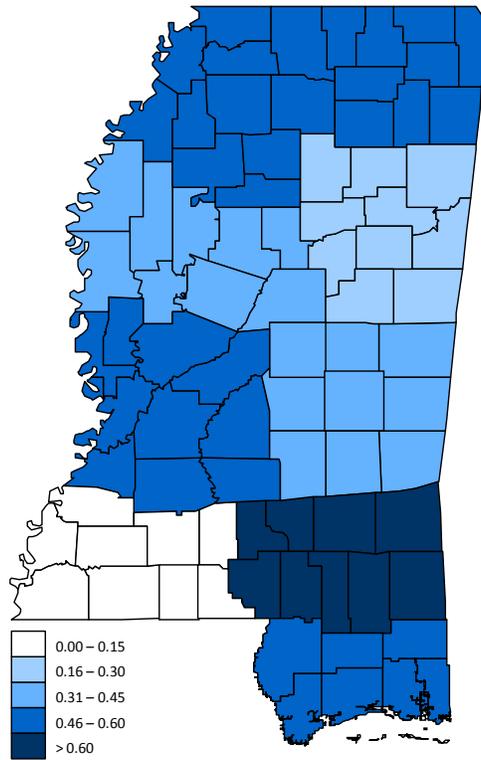
Comparison to 2013 Infection Rates: above (11%)

Comparison to HHS Target: above (2%)

Estimated Excess Costs Spent on Treatment of HO CDI in 2014: \$7,827,336 - \$11,144,232



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



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

Community Onset-Healthcare Facility Associated (CO-HCFA):

Number of Facilities that Reported at Least One Positive *C. difficile* Result: 50

Number of HO CDI Reported: 315

Infection Rate: 1.00 infections per 1,000 facility admissions

Comparison to 2010-2011 National Baseline: no significant difference

Comparison to 2013 Infection Rates: above (30%)

Comparison to HHS Target: above (43%)

Estimated Excess Costs Spent on Treatment of HO CDI in 2014: \$3,113,145 - \$4,432,365

Community Onset (CO):

Number of Facilities that Reported at Least One Positive *C. difficile* Result: 50

Number of HO CDI Reported: 1,091

Infection Rate: 36.44 infections per 100,000 Mississippi residents

Comparison to 2013 Infection Rates: above (20%)

Estimated Excess Costs Spent on Treatment of HO CDI in 2014: \$10,782,353 - \$15,351,461

For more information on CDI: http://www.cdc.gov/HAI/pdfs/cdiff/Cdiff_tagged.pdf and

http://www.cdc.gov/HAI/organisms/cdiff/Cdiff_infect.html

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