

NEW MEXICO HEALTHCARE-ASSOCIATED INFECTIONS ANNUAL REPORT

Prepared by: New Mexico Healthcare-associated Infections Advisory Committee

January-December 2014

Healthcare-associated infection prevention in New Mexico

Healthcare-associated infections (HAI) are infections patients can acquire while receiving medical treatment. The New Mexico Department of Health (NMDOH) and New Mexico (NM) HAI Advisory Committee have facilitated statewide and regional HAI prevention efforts since 2008. NMDOH receives both voluntary and mandatory data from healthcare facilities and publishes an annual surveillance report.

This annual report provides an update on NM HAI prevention progress in 2014. Facility-specific information is on the NMDOH website (<http://nmhealth.org/go/hai>) for hospitals reporting to NMDOH. Additional detail on methodology and infections can be found in the NM HAI Annual Report 2012 (<http://nmhealth.org/go/hai>). State-specific 2013 data (the most recent available) for all states is included in the Centers for Disease Control and Prevention (CDC) 2013 HAI Progress Report www.cdc.gov/hai/progress-report/ and Hospital Compare (www.medicare.gov/hospitalcompare) provides quality and safety data on additional facilities in NM and nationally.

HAI prevention progress is tracked using a standardized infection ratio (SIR) which compares the current number of infections to the number of predicted infections based on national baseline data; lower SIRs indicate better progress (i.e., fewer infections). National prevention targets are set by US Department of Health and Human Services (HHS) and through the Healthy People (HP) framework. Infection data are collected through CDC's National Healthcare Safety Network (NHSN) database. HAI data provide healthcare facilities and public health agencies information needed to design, implement, monitor, and evaluate HAI prevention efforts.

2014 New Mexico key findings

- **Central line-associated bloodstream infection SIR did not meet the national 2013 HHS prevention target of 0.50.**
- **Healthcare personnel influenza vaccination rate was better than the Healthy People 2014 target and improved 4.9% over the 2014-2015 season.**
- ***Clostridium difficile* facility-onset SIR was worse than the national baseline and did not meet the 2013 HHS target.**
- **Facility-onset methicillin-resistant *Staphylococcus aureus* SIR was better than the 2013 HHS target and included 50% more NM facilities reporting than in 2013.**

What's inside?

Page 2 & 3: New Mexico progress on CLABSI, CDI, MRSA, and HCP influenza vaccination

Page 4: What is antibiotic resistance? What can we do about it?



NMDOH HAI Surveillance

Central line-associated bloodstream infection (CLABSI)*

- A central line is a tube placed in a large blood vessel usually of a patient's neck or chest for giving medications, drawing blood, or for monitoring purposes. When not inserted correctly or kept clean, central lines can become a pathway for germs to enter the body and cause infections in the blood that can be serious and even deadly.

Clostridium difficile

infection (CDI)* - A CDI occurs when a patient becomes ill from *Clostridium difficile* bacteria. Consequences of CDI range from diarrhea to life-threatening inflammation of the colon.

Methicillin-resistant *Staphylococcus aureus* (MRSA) -

MRSA is a bacteria that is resistant to many antibiotics. In the community, most MRSA infections are skin infections. In medical facilities, MRSA can cause life-threatening bloodstream infections, pneumonia and surgical site infections.

Healthcare personnel (HCP) influenza vaccination -

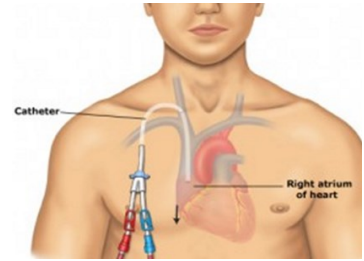
HCP (e.g., doctors, nurses, technicians, volunteers) can become ill with influenza (flu) and pass it to patients. It is recommended that HCP receive an influenza vaccination yearly to protect themselves and patients.

*Acute care hospital data sharing with NMDOH as required by New Mexico Administrative Code.

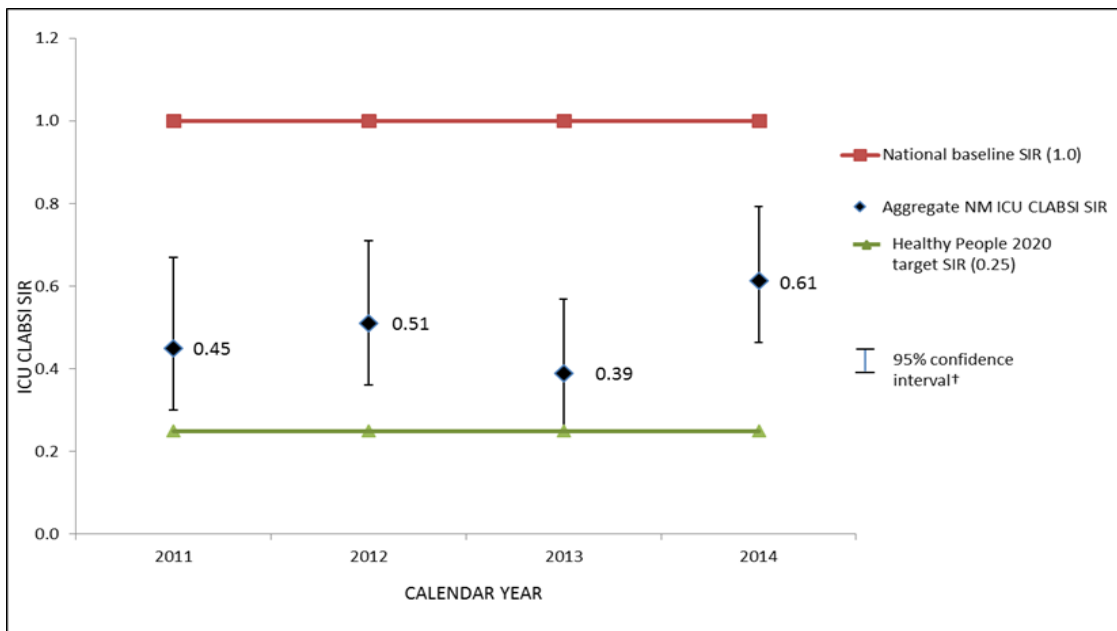
Central line-associated bloodstream infection (CLABSI)

New Mexico hospitals began voluntarily tracking and sharing CLABSI data with NMDOH in 2008.

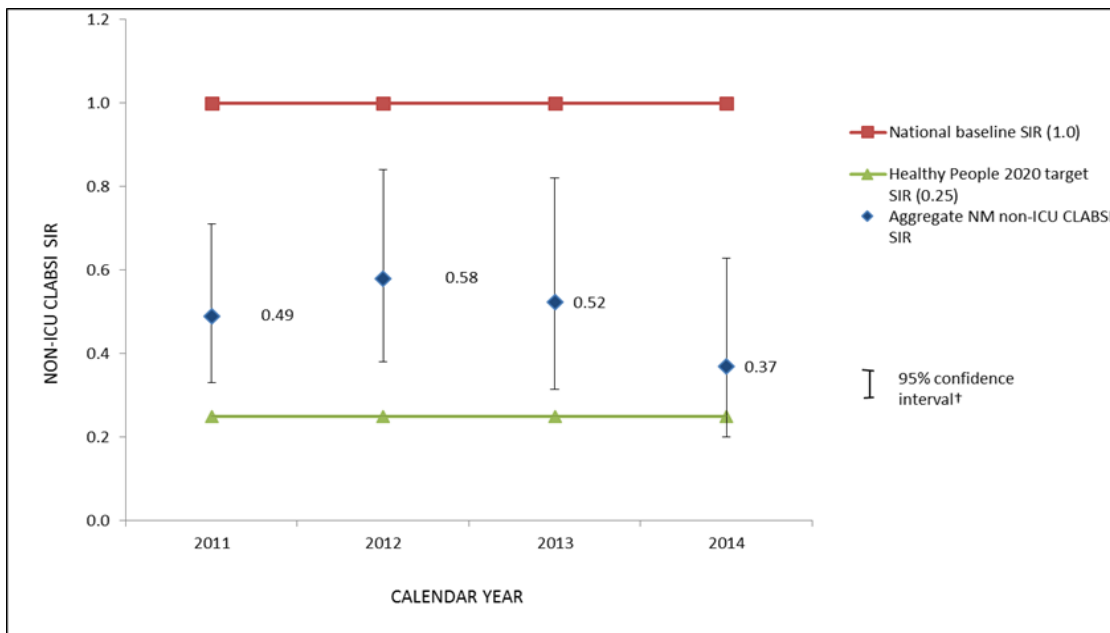
Acute care hospitals are now expected to share NHSN CLABSI data per the NM Administrative Code. In 2014, 34 NM acute care hospitals shared data on CLABSIs in a total of 71 units including intensive care units (ICU), neonatal intensive care units (NICU) and non-ICU wards. The aggregate SIR for all units, excluding NICU, was 0.55; which was 45% less than predicted based on the national baseline. Even though the NM SIR was lower than predicted, it has not yet met the 2013 national HHS target (0.50). Progress is still needed to achieve the 2020 HHS target of 0.25 (lower SIRs indicate fewer infections). The 2014 NM NICU SIR was 0.83, 17% less than predicted based on the national baseline. Hospitals have expanded CLABSI monitoring into more non-ICU units in 2015.



NM adult and pediatric ICU CLABSI SIRs for calendar years 2011—2014 (Note: Data for each year are statistically better than national baseline but not yet low enough to meet the Healthy People 2020 target.)



NM non-ICU CLABSI SIRs for calendar years 2011—2014 (Note: Data for each year are statistically better than national baseline but not yet low enough to meet the Healthy People 2020 target.)



Clostridium difficile infection (CDI) and methicillin-resistant Staphylococcus aureus (MRSA)

In 2014, laboratory-identified CDI and MRSA hospital-wide data were shared for the second year with NMDOH. CDI data were shared by 32 facilities under NM Administrative Code. MRSA bloodstream infection data were voluntarily shared by 24 facilities.

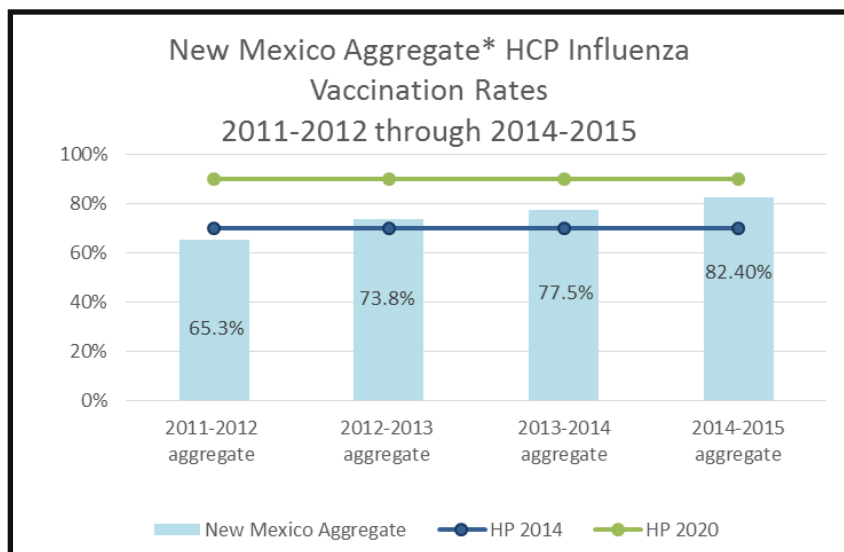
Infection	NM aggregate 2014 SIR	95% confidence interval †	Statistical comparison between NM SIR and national baseline	HHS 2013 Target SIR
CDI	1.15	1.06,1.25	☉ Worse than national baseline (SIR 1.00)	0.70
MRSA	0.39	0.24,0.60	★ Better than national baseline (SIR 1.00)	0.75

† The confidence interval indicates that 95% of the time, the true value of the SIR lies somewhere between the upper and lower limits of this range.

You can reduce your risk for CDI by doing the following: 1) consult with your healthcare provider to reduce/eliminate use of two types of drugs that decrease stomach acids (proton pump inhibitors (PPIs) sometimes called the “purple pill”, and hydrogen pump blockers or H2 blockers sometimes called acid reducers); and 2) do not take antibiotics unnecessarily. Other risk factors for CDI can be: 1) steroids or immunosuppressive medications; 2) prolonged hospital stays; and 3) advanced age.

Healthcare personnel influenza vaccination

Annual influenza vaccination of healthcare personnel (HCP) can reduce influenza-related illness and its potentially serious consequences among HCP and their patients. Because persons infected with influenza virus (i.e., seasonal flu) can transmit influenza, even before showing symptoms, personnel who interact with patients or the patient care environment are encouraged to be vaccinated. The national Healthy People 2020 target for HCP influenza vaccination is 90%. For the 2014-2015 season, the aggregate NM HCP influenza vaccination rate was 82.4% among all HCP at 32 voluntarily reporting healthcare facilities. This exceeded the HP 2014 target of 70% and continues steady improvement toward the HP 2020 target.

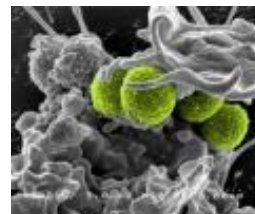


* 32 inpatient healthcare facilities voluntarily collected and submitted vaccination rates for employees, licensed independent practitioners (physicians, physician assistants and advance practice nurses), and volunteers and students. The total numbers of personnel in all categories were used to create an aggregate rate. This aligns with the definition used for national HCP influenza vaccination reporting.

Stopping the spread of antibiotic resistance

According to CDC, the United States is at a tipping point as increasing numbers of germs no longer respond to the drugs designed to kill them.

Antibiotic-resistant germs cause over 2 million illnesses and at least 23,000 deaths every year in the United States. Gaps in infection control practices and inappropriate prescribing of antibiotics can contribute to drug resistance and also put patients at risk for deadly diarrhea caused by *Clostridium difficile*.



Communities can work together to protect patients

Patients can be at risk if other patients with drug-resistant germs are transferred back and forth between facilities for treatment without proper communication and necessary infection control actions in place.

Coordinated approaches across communities can improve sharing of information between facilities, or from outside providers when a patient is first admitted, which can assure quick application of appropriate contact precautions and appropriate use of antibiotics. These actions protect both the patient with the drug-resistance and other patients they might otherwise come in contact with, potentially spreading resistant germs.

Healthcare facility CEOs/administrators can:

- Implement systems to alert receiving facilities when transferring patients who have drug-resistant germs.
- Review and perfect infection control actions within the facility.
- Obtain leadership commitment to join HAI/antibiotic resistance prevention activities in the area.
- Connect with the health department to share data about antibiotic resistance and other HAIs.
- Make sure clinical staff have access to prompt and accurate laboratory testing for antibiotic-resistant germs.

Prescribers and healthcare staff can:

- Prescribe antibiotics correctly; get cultures then start the right drug at the right dose for the right duration.
- Be aware of antibiotic resistance patterns in the facility and area in order to protect patients.

Patients and families can:

- Tell your healthcare provider if you have been an inpatient in another facility.
- Insist that everyone wash their hands before touching you to provide healthcare and wash your own hands often.
- Ask your healthcare provider what they are doing to protect you from antibiotic-resistant infections or CDI.

Source: CDC Vital Signs, August 2015

For More Information:

- National Action Plan for Combating Antibiotic-Resistant Bacteria: https://www.whitehouse.gov/sites/default/files/docs/national_action_plan_for_combating_antibiotic-resistant_bacteria.pdf
- Information sheets on HAI, including CDI and MRSA: <http://www.shea-online.org/Patients.aspx>
- Hand Hygiene: <http://www.cdc.gov/handwashing/when-how-handwashing.html>
- CDC Antibiotic Resistance Project Programs: www.cdc.gov/drugresistance/solutions-initiative/index.html
- New Mexico Department of Health HAI Program: www.nmhealth.org/go/hai