

New Mexico Healthcare-associated Infections Annual Report: January-December 2016

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October 2017

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 2016. Facility specific information is available on the NMDOH website (<http://nmhealth.org/go/hai>) for hospitals reporting to NMDOH. State specific 2015 data (the most recent available) for all states is included in the Centers for Disease Control and Prevention (CDC) 2015 HAI Progress Report (www.cdc.gov/hai/progress-report)

The standardized infection ratio (SIR) is a summary measure used to track HAIs over time. The SIR compares the actual number of HAIs reported to what was predicted, given the standard population (NHSN baseline), adjusting for several risk factors found to be significantly associated with differences in infection incidence. In other words, a SIR greater than 1.0 indicates more HAIs were observed than predicted, a SIR less than 1.0 indicates fewer HAIs were observed than predicted. National prevention targets are set by US Department of Health and Human Services (DHHS) and through the Healthy People 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.

2016 New Mexico key findings

- Central line-associated bloodstream infection SIR was not significantly different than the national baseline.
- For the 2016-2017 season healthcare personnel (HCP) influenza vaccination rate was better than the Healthy People 2014 target
- *Clostridium difficile* infection facility-onset SIR did not meet the 2014 HHS target

WHAT'S INSIDE?

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Page 3: New Mexico progress on central line-associated bloodstream infection (CLABSI), *Clostridium difficile* (CDI) and Methicillin-resistant *Staphylococcus aureus* (MRSA); what patients can do to reduce their risk of infections

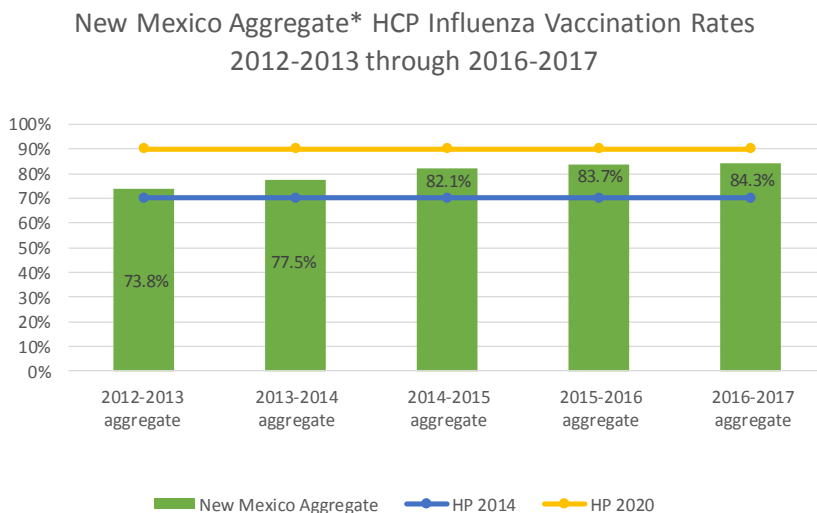
Page 4: Antibiotics aren't always the answer



Healthcare personnel (HCP) 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.

For the 2016-2017 season, the aggregate NM HCP influenza vaccination rate was 84% among all HCP at 33 voluntarily reporting healthcare facilities. This exceeded the HP 2014 target of 70% and continues steady improvement toward the HP 2020 target of 90%.



Healthcare personnel influenza vaccinations are just one of the many strategies designed to reduce your risk of infections.

33 inpatient healthcare facilities voluntarily collected and submitted vaccination rates for employees, licensed independent practitioners (physicians, physician assistants and advance practice nurses), 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.

HAI Measures/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

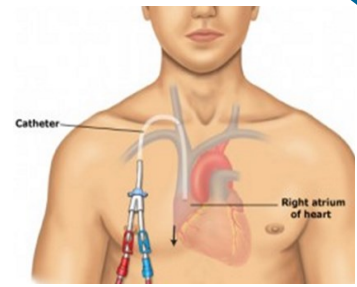
***Staphylococcus aureus* (MRSA) -** MRSA are bacteria that are resistant to many antibiotics. In the community, most MRSA infections are skin infections. In medical facilities, MRSA can cause life-threatening bloodstream infections, pneumonia and surgical site infections.

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)

In 2016, 26 NM general acute care hospitals shared data on CLABSIs in a total of 187 units including intensive care units (ICU), and non-ICU wards.



While the central line will be managed by health care professionals, there are some

| CLABSI | NM aggregate 2016 SIR | 95% confidence interval | Statistical comparison between NM SIR and national baseline (1.00) | Healthy People 2014 Target SIR (0.50) |
|----------------|-----------------------|-------------------------|---|---------------------------------------|
| Non-ICU | 0.94 | 0.67,1.28 | No significant difference between the number of observed and predicted infections | ● Target not met. |
| ICUs | 1.20 | 0.92,1.56 | No significant difference between the number of observed and predicted infections | ● Target not met. |

ways that patients can help themselves. 1) research the hospital and learn about its CLABSI rate; 2) speak up to help healthcare providers follow the best infection prevention practices; 3) ask your provider about the central line such as if it is necessary and how long it will be in place.; 4) observe the bandage and the area around it. Tell a HCP if the bandage comes off or if bandage or area around it is wet or dirty; 5) do not get the central line wet; 6) tell a HCP if the area around the catheter is red or sore; 7) do not touch the catheter or let any visitors touch the catheter or tubing; 8) have all visitors wash their hands before and after their visit.

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

In 2016 CDI data were shared by 29 acute care hospitals under NM Administrative Code. MRSA bloodstream infection data were voluntarily shared by 22 acute care hospitals.

| Infection | NM aggregate 2015 SIR | 95% confidence interval | Statistical comparison between NM SIR and national baseline (1.00) | HHS 2013 Target SIR |
|-------------|-----------------------|-------------------------|---|--------------------------|
| CDI | 1.09 | 1.003,1.19 | No significant difference between the number of observed and predicted infections | ● 0.70 Target not Met |
| MRSA | 0.75 | 0.49,1.09 | No significant difference between the number of observed and predicted infections | ★ 0.75 Target Met |

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.); 2) do not take antibiotics unnecessarily. Other risk factors for CDI include: steroids or immunosuppressive medications, prolonged hospital stays, and advanced age.

Viruses or Bacteria

What's got you sick?

Antibiotics only treat bacterial infections. Viral illnesses cannot be treated with antibiotics. When an antibiotic is not prescribed, ask your healthcare professional for tips on how to relieve symptoms and feel better.

| Common Condition: What's got you sick? | Common Cause | | | Are antibiotics needed? |
|---|--------------|-------------------|-------|-------------------------|
| | Bacteria | Bacteria or Virus | Virus | |
| Strep throat | ✓ | | | Yes |
| Whooping cough | ✓ | | | Yes |
| Urinary tract infection | ✓ | | | Yes |
| Sinus infection | | ✓ | | Maybe |
| Middle ear infection | | ✓ | | Maybe |
| Bronchitis/chest cold (in otherwise healthy children and adults)* | | ✓ | | No |
| Common cold/runny nose | | | ✓ | No |
| Sore throat (except strep) | | | ✓ | No |
| Flu | | | ✓ | No |

* In some cases, acute bronchitis is caused by bacteria, but even in these cases antibiotics still do not help.

Antibiotics Aren't Always the Answer