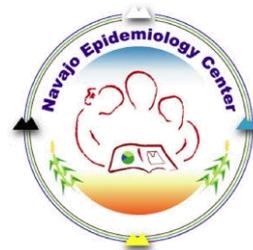




Surveillance for *Staphylococcus aureus* disease on Navajo Nation



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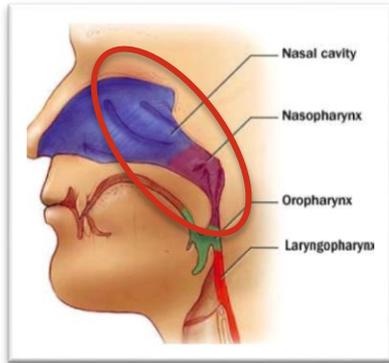
Journal article

Citation: Sutcliffe CG, Grant LR, Reid A, Douglass GK, Weatherholtz RC, Hubler R, et al. (2019) The burden of *Staphylococcus aureus* among Native Americans on the Navajo Nation. PLoS ONE 14(3): e0213207.

Web link: <https://doi.org/10.1371/journal.pone.0213207>

Background information on the germ staph

Staph is a bacteria that lives in the **nose and on the skin**, usually not causing illness



From the nose or skin, Staph can move to other parts of the body and **cause disease (e.g. blood infection, pneumonia, osteomyelitis)**

Staph is usually **treated with an antibiotic** called methicillin. Some staph are resistant to methicillin and are called methicillin-resistant Staphylococcus aureus (MRSA). **MRSA can be difficult to treat and can lead to death.**

Staph spreads through **contact with people and objects**



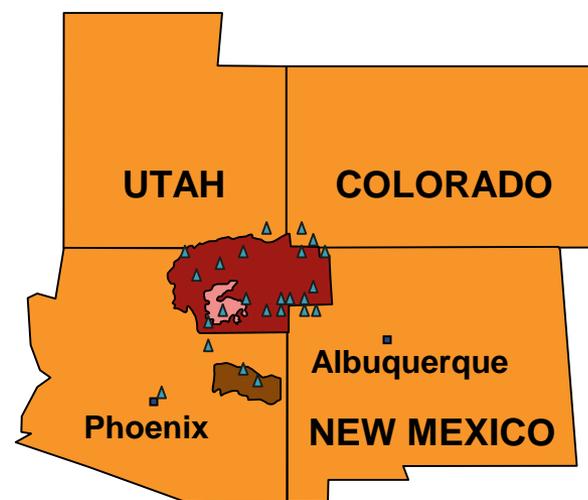
Sneezing



Touching

Overview of Active Bacterial Surveillance

- **Why we do it:** Track changes in disease over time and evaluate the impact of interventions on disease
- **What we do:** Identify serious disease among American Indians caused by four bacteria
 - *Streptococcus pneumoniae*
 - *Haemophilus influenzae*
 - *Neisseria meningitidis*
 - ***Staphylococcus aureus***
- **Where we do it:** 24 labs on and around the Navajo Nation and White Mountain Apache tribal lands



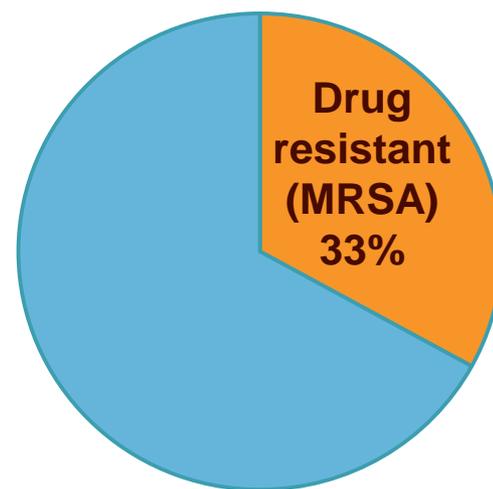
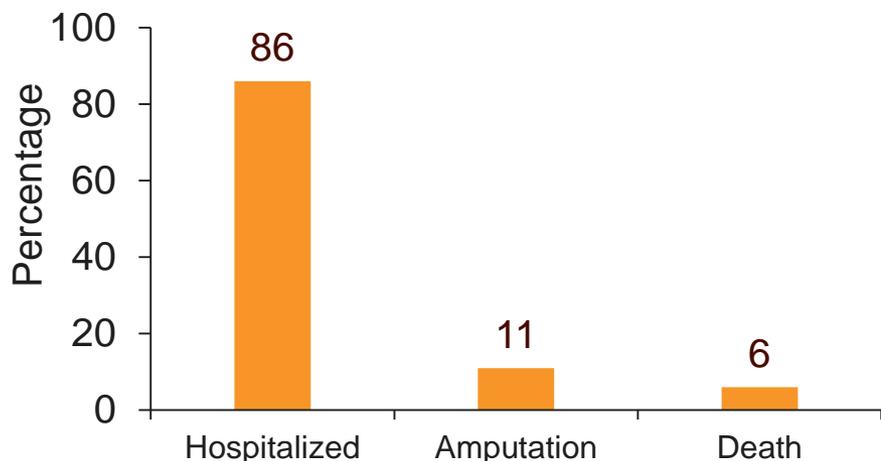
Key:

- Navajo Nation
- White Mountain Apache
- Hopi
- ▲ Laboratory

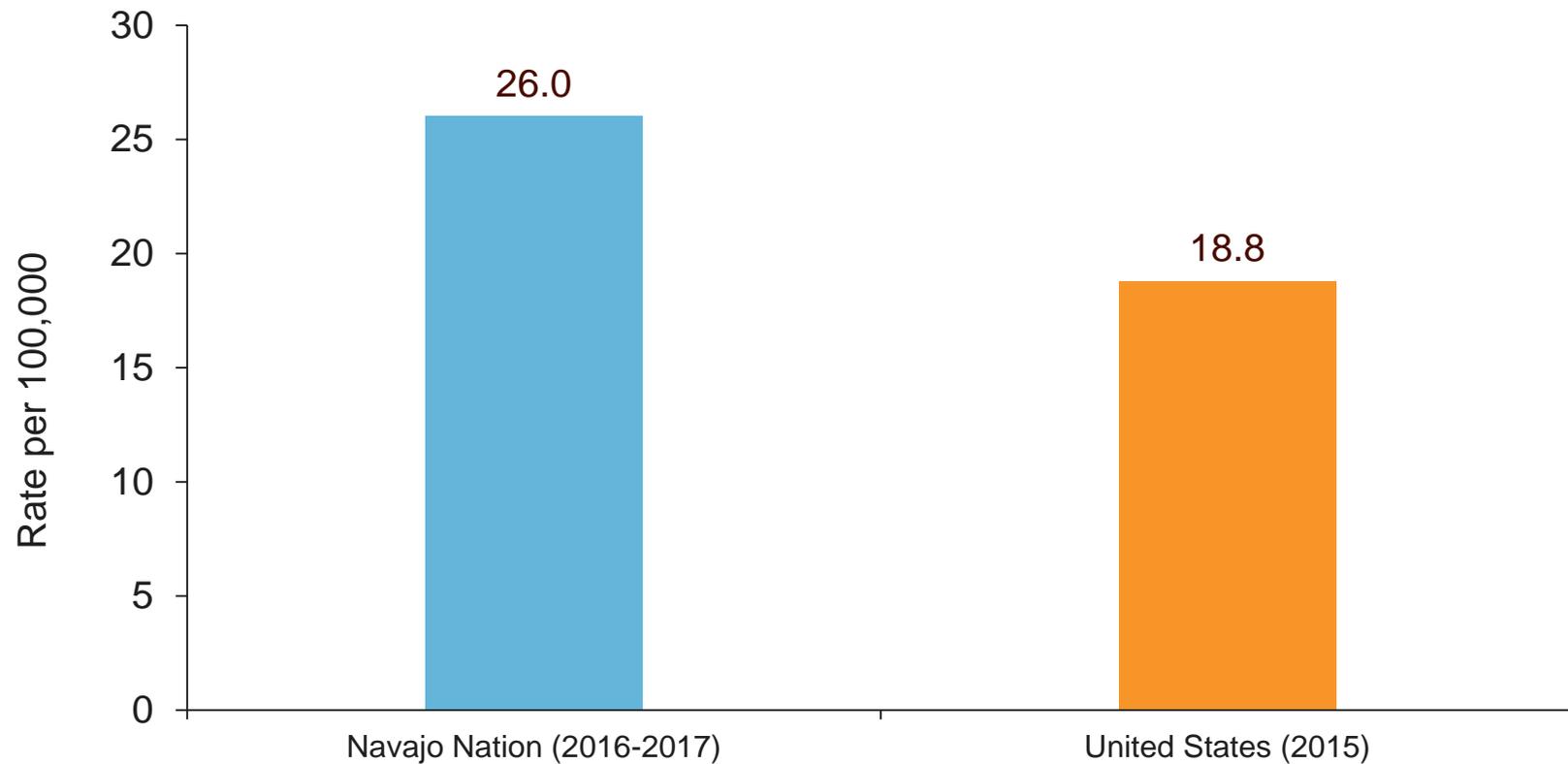
Invasive Staph disease on Navajo Nation

- Surveillance period: May 1, 2016 to April 30, 2017
- Number of cases identified: 159
- Staph cases occurred most commonly among older adults (≥ 50 years) with other diseases such as diabetes

Outcome of invasive Staph infection



Navajo Nation has a higher burden of MRSA disease than the general US population



US (2015) source: <https://www.cdc.gov/hai/eip/saureus.html#AR>

What this means for your community?

- First comprehensive and robust estimates of invasive Staph for Navajo Nation
- Staph contributes to serious disease on Navajo Nation
- Understanding the burden can help:
 - **The public health community** bring attention to this problem and plan interventions (e.g. community & provider education)
 - **Healthcare administration** plan resources
 - **Healthcare providers** manage patients by promoting earlier detection and proper treatment
- Further surveillance is needed to track the burden over time



How can you protect yourself and your family from Staph infections?

- Know the signs of a Staph infection and contact your healthcare provider if you think you have an infection
 - Most Staph skin infections appear as a bump or infected area that may be red, swollen, painful, warm to the touch, full of pus, accompanied by a fever
 - Staph infections can also present with high fever that lasts for several days without any other symptoms
- Keep cuts and scrapes clean and covered
- Encourage good hygiene such as cleaning hands regularly
- Discourage sharing of personal items, including towels and razors



For more information on Staph and MRSA infections, go to: <https://www.cdc.gov/mrsa/community/patients.html>