

## 2016 NE Tuberculosis Program Report

### Tuberculosis

Tuberculosis, or TB, is an infectious disease caused by a bacteria (germ). It generally affects the lungs, but can cause disease anywhere in the body. The germ may infect anyone, at any age. It can be spread when a person with active TB in their lungs coughs, laughs, sings, speak, and/or sneezes and another person then inhaling that air. TB is **NOT** spread by

- shaking someone's hand
- sharing food or drink
- touching bed linens or toilet seats
- sharing toothbrushes
- kissing

The general symptoms of TB disease include feeling sick or weak, having weight loss, fever, and/or night sweats. The symptoms of TB of the lungs may include coughing, chest pain, and/or coughing up blood. Other symptoms depend on the part of the body that is affected. TB is curable and treatable with the correct antibiotics.

### Latent Tuberculosis Infection vs. Tuberculosis Disease

Individuals with latent TB infection have TB germs in their bodies, but they are not sick because the germs are not active. These people do not have symptoms of TB disease and they cannot spread the germs to others. However, they may develop TB disease in the future. They are often prescribed treatment to prevent them from developing TB disease. **Individuals with latent TB infection are not infectious whereas persons with TB disease are considered infectious and may spread TB bacteria to others.**

### Ways to be tested for Tuberculosis

There are tests that can be used to help detect TB infection: a skin test or blood tests. The Mantoux tuberculin skin test is performed by injecting a small amount of fluid (called tuberculin) into the skin in the lower part of the arm. A person given the tuberculin skin test must return within 48-72 hours to have a trained health care worker look for a reaction on the arm. The blood test measures how the patient's immune system reacts to the germs that cause TB.

### Tuberculosis in Nebraska

The Department of Health and Human Services (DHHS) of Nebraska's Tuberculosis Program conducts surveillance, data analysis, program evaluation, and consultation for health care providers, health care facilities, and Nebraska's Local Health Departments (LHD). There is close collaboration with Nebraska Public Health Laboratory (NPHL), ensures appropriate laboratory testing for specimens.

NPHL provides comprehensive testing services including acid-fast bacillus) AFB smear, cultures, nucleic acid amplification, identification, and drug susceptibility testing for clinical mycobacterial samples statewide. The laboratory serves as a reference laboratory for all isolates suspected to be positive for TB and performs drug susceptibility testing for all first-time positive isolates. The laboratory

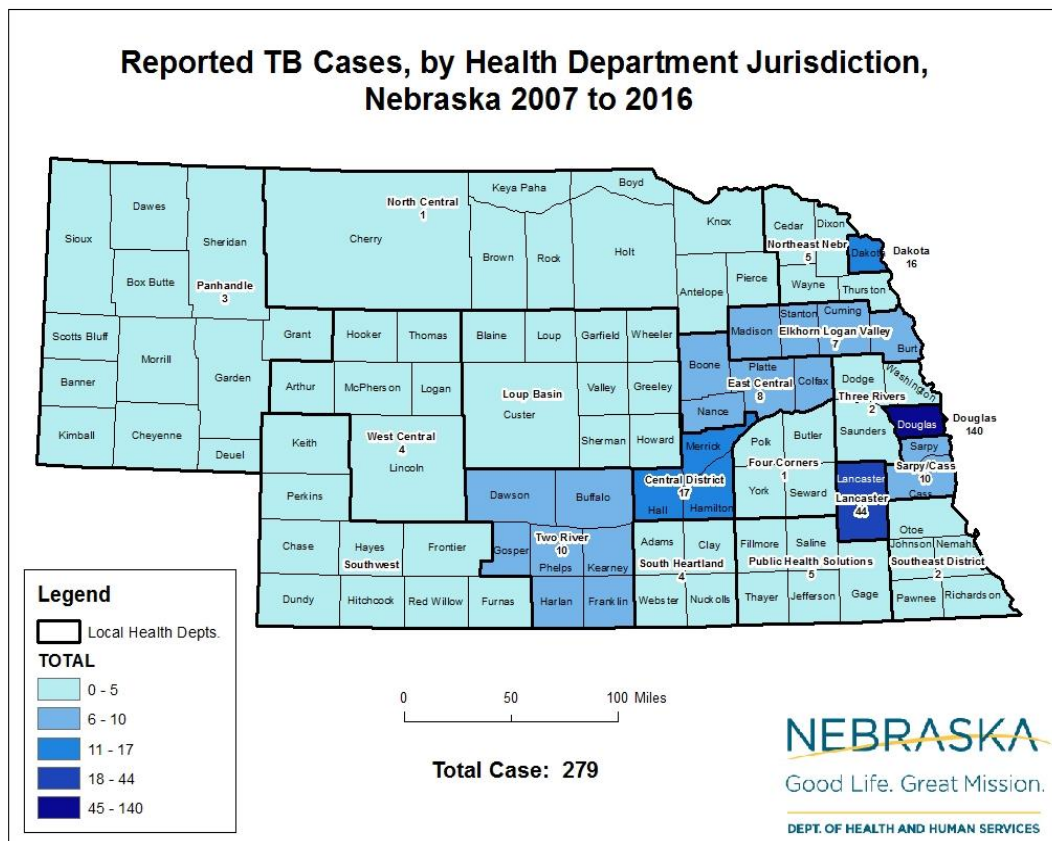
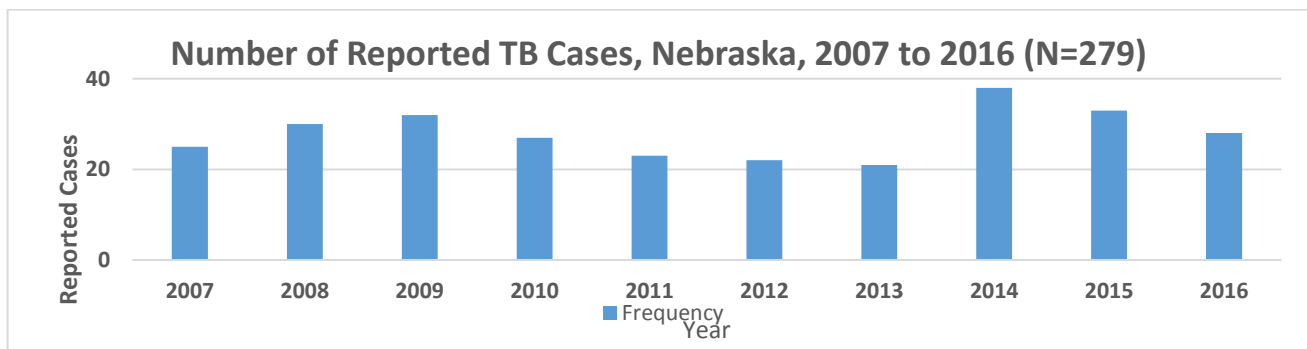
also sends isolates to the Centers for Disease Control and Prevention (CDC) contract lab in Michigan for genotyping of all positive culture isolates.

Nebraska is comprised of 93 counties that are covered by 20 Health Departments. The LHD's provide direct patient care for tuberculosis (TB) control activities. The LHD's coordinate with various medical providers and correctional health staff members within their jurisdiction to provide TB control and prevention services.

### 2016 Statewide Summary

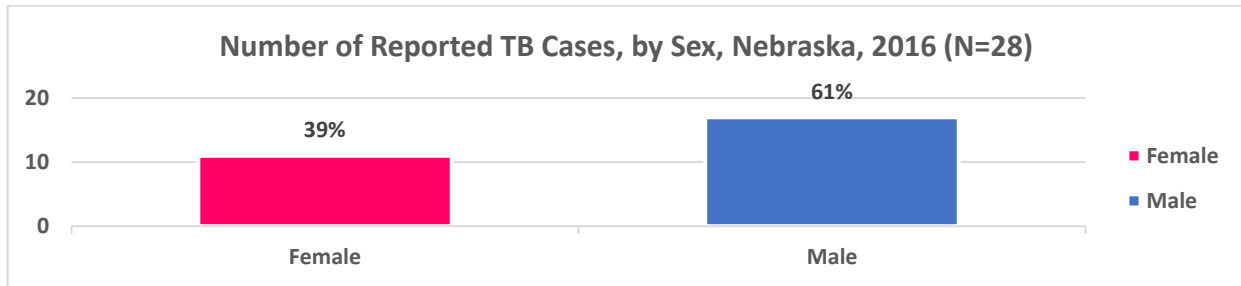
#### Case Rates

In 2016, Nebraska's Health Departments reported 28 cases of active TB with a case rate of 1.47 per 100,000. This represents a decrease in the number of cases and level case rate compared to 2015. In the United States, a total of 9,557 TB cases were reported in 2015 with a case rate of 3.0 cases per 100,000.



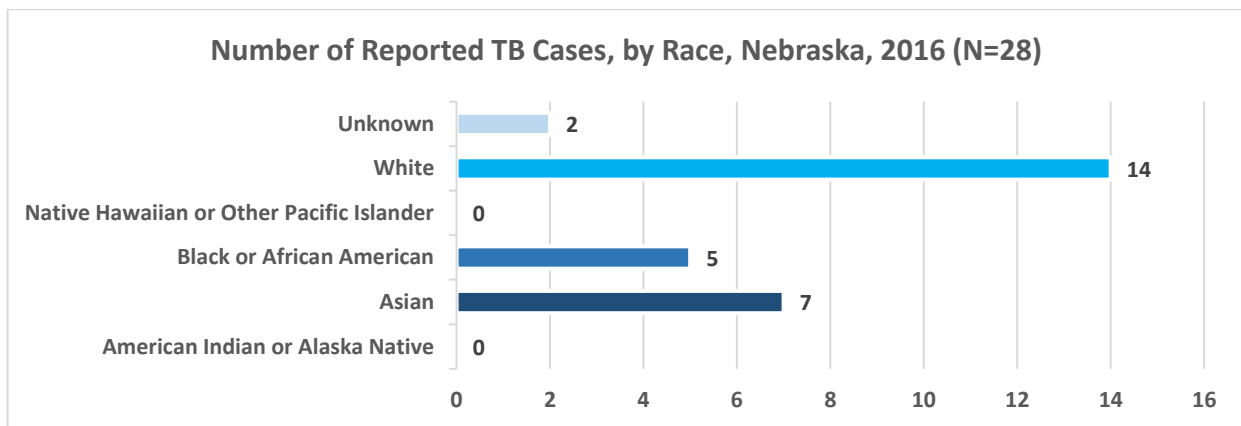
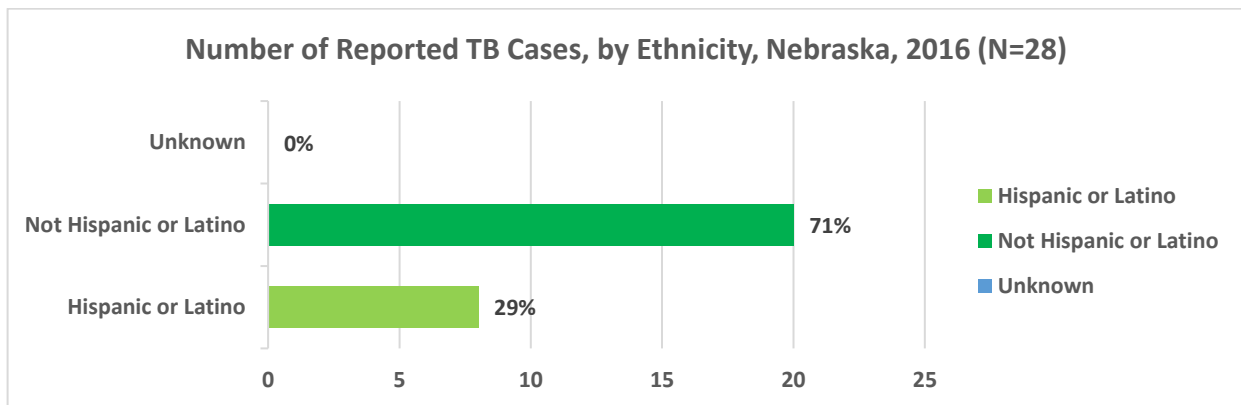
### Tuberculosis by Gender

Tuberculosis tends to infect and lead to active TB disease in males more often than females. In 2016, 17 (61%) were males and 11 (39%) were females. This is consistent with nationwide and previous year's surveillance.



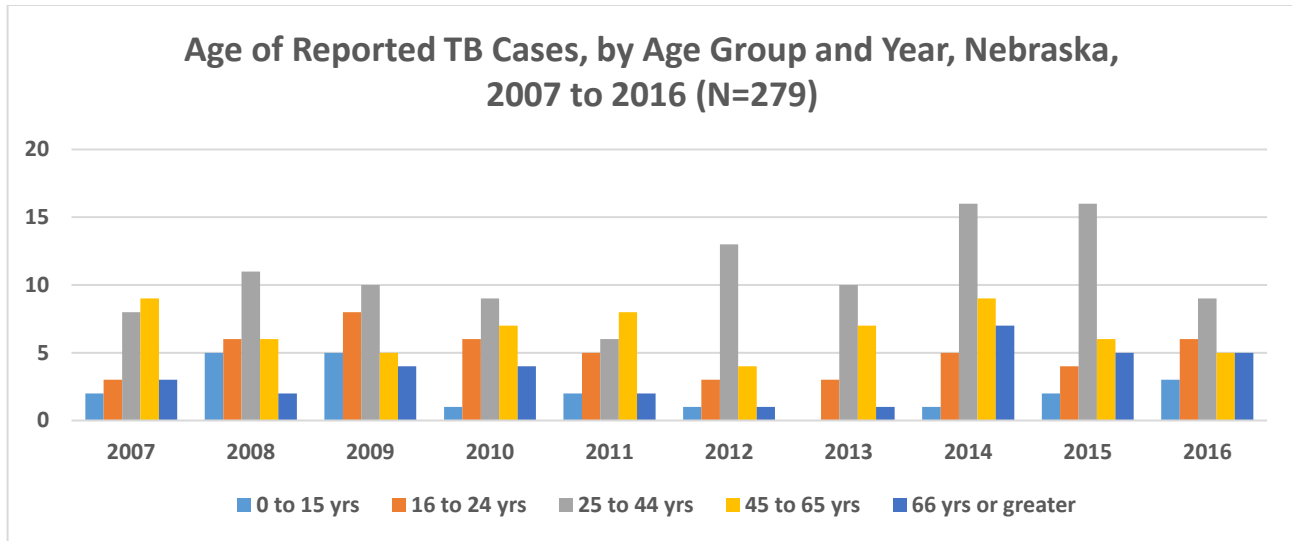
### Tuberculosis by Race/Ethnicity

The number of reported persons with TB in Nebraska for the last decade has been highest among racial and ethnic minorities. In 2016, Nebraska Health Departments reported 22 of the 28 cases were foreign born which is 79% of the 2016 cases.



### Cases and Case Rates by Age Groups

In 2016, the largest number of cases were among the age group 25-44, followed by ages 16-24.



### Tuberculosis Cases by Major Site of Disease

Tuberculosis most often attacks the lungs (pulmonary TB), but may also affect any part of the body (extra-pulmonary TB). In 2016, 19 of the 28 cases were pulmonary and 8 of the cases were extra-pulmonary and 1 case had both.

### Conclusion

A vital approach towards the elimination of TB is to identify and treat persons with TB infection and high risk of developing active disease in the future. The TB program continues to partner with Health Departments, federal agencies, correctional facilities, and the international community to prevent and control TB in Nebraska. These partnerships have improved treatment completion, data quality, and communication between different jurisdictions. With the continued partnerships with the Health Departments is a key towards the elimination of TB.

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