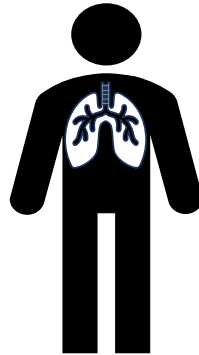


Tuberculosis

Iowa: 2022

What is Tuberculosis (TB)?

Tuberculosis (TB) is a disease caused by a bacterium called *Mycobacterium tuberculosis*. It primarily attacks the lungs but can affect any part of the body including the kidney, spine, and brain.



60

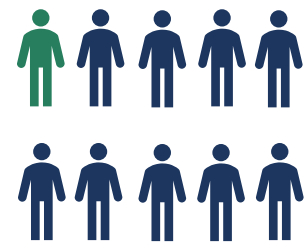
TB cases reported in Iowa in 2022

The mission of the TB Control Program is to eliminate TB disease in Iowa.

TB Disease vs. Latent TB infection (LTBI):

Individuals with **TB disease** have active TB germs that multiply and destroy tissue in their body. Individuals usually experience symptoms and are capable of spreading the germs to others if the disease is in the lungs or throat.

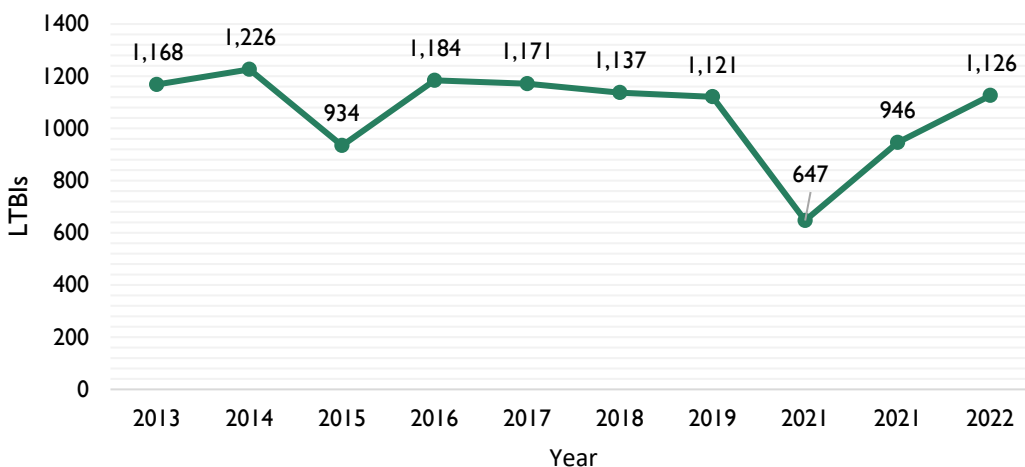
Individuals with **Latent TB Infection (LTBI)** have TB germs that are inactive. These individuals do not experience symptoms and cannot spread the TB germs to others. Although LTBI can develop into TB, treatments are available to prevent LTBI from progressing to TB disease.



1 in 10

According to the CDC, on average, **1 in 10 people with LTBI who do not get treatment** will become sick with TB disease in the future.

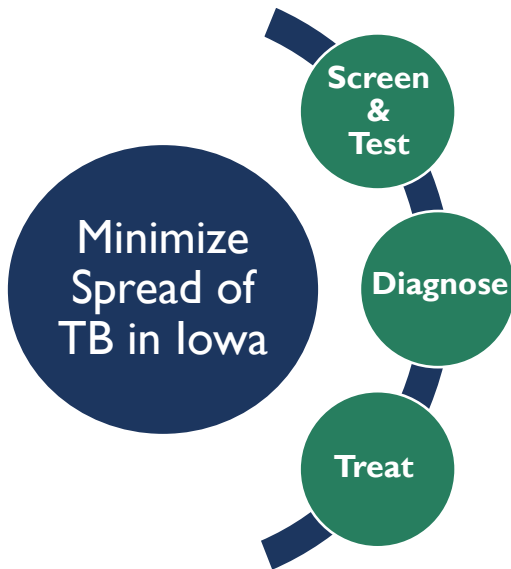
Iowa Latent Tuberculosis Infections by Year 2013-2022



Although LTBI is not a reportable condition in Iowa, the majority of providers use the program to manage the LTBI regimen for their patients. In 2020, the global pandemic resulted in the program recording the lowest count of LTBIs during the decade at 647 while 2014 had the largest number of infections at 1,226.

How does TB Spread?

TB spreads through air from person to person. An individual becomes infected by breathing in the bacteria from an infected person.



Collaboration with clinicians and local public health agencies (LPHAs) is essential to minimizing the spread of TB in Iowa.

TB Disease:

Symptoms of TB disease depend on the site of disease and where the bacteria is growing. TB bacteria usually grows in the lungs (Pulmonary TB) and can cause symptoms such as:

- bad cough that lasts 3 weeks or longer
- chest pain
- coughing up blood or sputum (phlegm from deep inside the lungs)

Other symptoms of TB disease include:

- weakness or fatigue
- unexplained weight loss
- no appetite
- chills
- fever
- drenching night sweats

Latent TB Infection (LTBI):

People who have latent TB infection do not have any symptoms and do not feel sick. They cannot spread TB to others.

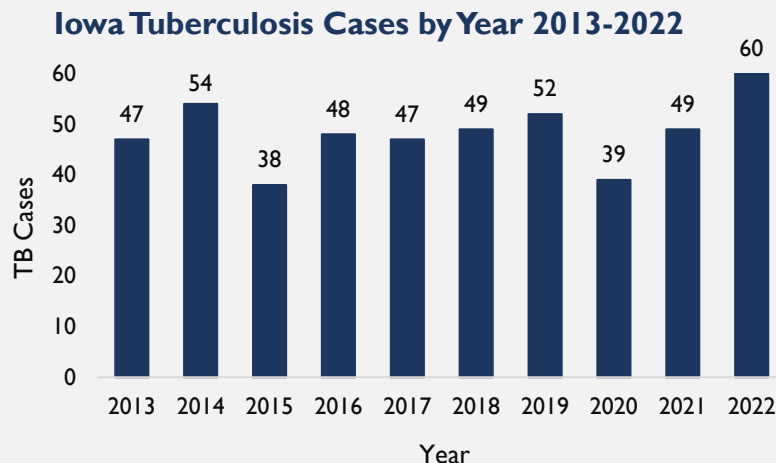
Tuberculosis Case Reporting:

- TB disease is a reportable condition in Iowa. **Both clinically suspected and laboratory confirmed tuberculosis** disease are to be reported.
- Cases of pulmonary disease should be reported to Iowa Department of Health and Human Services TB Program within one working day and three working days for extrapulmonary TB (EPTB) disease.
- Latent tuberculosis infection (LTBI) is not a reportable condition in Iowa, however the Iowa Department of Health and Human Services provides medication to treat LTBI to prevent progression to disease.

TB Cases in Iowa

TB Cases: 2013-2022

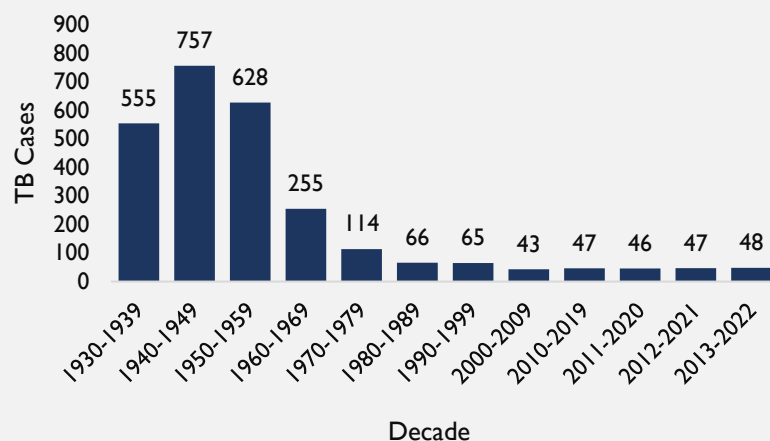
Over the last 10 years, confirmed TB cases in Iowa have ranged from 38 to 60 cases per year. In 2022, 60 TB cases were confirmed in Iowa, the highest number of cases in 10 years.



TB Cases by Decade:

The average number of TB cases each year by decade has significantly decreased since the 1940s. The discovery of streptomycin in 1944 and Isoniazid (INH) in 1952 heralded the modern era of TB treatment. The use of INH signaled the 'beginning of the end' for TB sanatoriums. However, science soon learned that single drug therapy resulted in treatment relapse. This led to the eventual use of a multi-drug treatment approach that demonstrated TB to be curable. Today, the use of an initial four-drug therapy to cure TB is the standard of practice in TB Control.

Average Number of Iowa TB Cases Each Year by Decade



TB Cases by Sex:

Between 2013-2022, 54% of tuberculosis cases occurred in males and 46% occurred in females.

Iowa TB Cases by Sex 2013-2022



TB Cases by Site of Disease:

Between 2013-2022, 483 tuberculosis cases were confirmed in Iowa. Pulmonary TB was the most common site of TB disease during this time period with 76.4% of TB cases occurring in the lungs. Of the 76.4% of cases, 53.0% were exclusively pulmonary while 23.4% had both pulmonary and extrapulmonary site of disease. An additional 23.6% of TB cases had extrapulmonary only site of disease.

Site of TB Disease:

Pulmonary TB: TB disease that occurs in the lungs. It is the most common site for TB disease.

Extrapulmonary TB: TB disease that occurs outside of the lungs. The most common sites are lymph nodes, pleura, bone and joints, urogenital tract and meninges.

Iowa TB Cases by Site of Disease 2013-2022

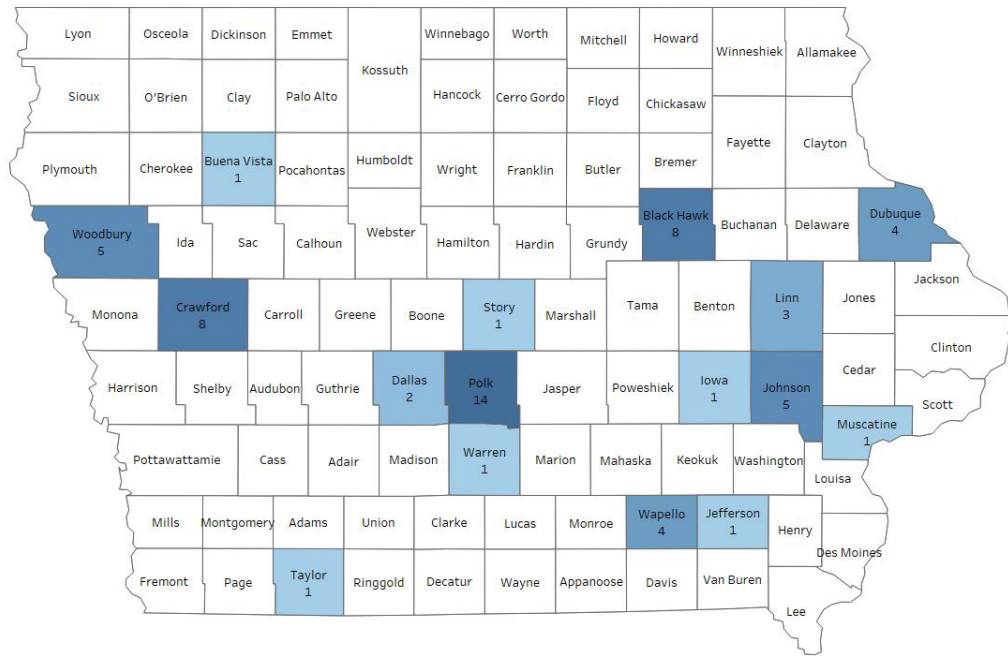


TB Cases by Iowa County of Residence of Residence: 2022

In 2022, a total of 60 tuberculosis cases were reported from 16 Iowa counties. Polk County had the greatest number of TB cases reported (14) followed by Crawford (8) and Black Hawk (8).

Higher TB morbidity logically occurs in higher population areas, but also is concentrated in areas where newly arriving immigrants are resettling. Many rural areas are home to industries such as meat packing and processing, that actively seek these immigrants to supplement their workforce.

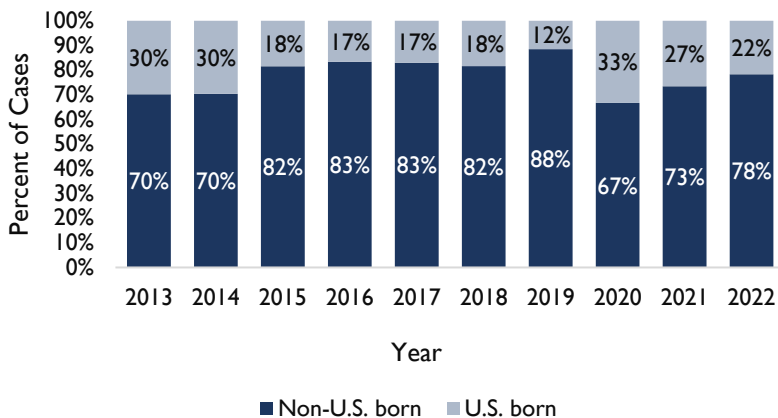
2022 TB Cases by Iowa County of Residence



TB Cases in Iowa (2013-2022) U.S vs Non-U.S Born :

Non-U.S born TB cases represent a large majority of TB cases in Iowa. Of the 60 cases of TB that occurred in Iowa in 2022, 78% occurred in non-U.S born persons. Since 2013, over 65% of TB cases in Iowa have occurred in non-U.S born individuals. Non-U.S. born persons account for only 4 percent of the Iowa population, highlighting the disparity. The decreasing numbers of U.S.-born cases are due in part to effective TB control practices in this country.

TB Cases By U.S. vs. Non-U.S. Born Iowa: 2013 - 2022



TB Cases in Iowa (2013-2022) Country of Origin :

Of the 483 TB cases that occurred between 2013-2022 in Iowa, 376 (78%) cases occurred in individuals with country of origin outside of the United States. 52 different country of origins made up TB cases in Iowa between 2013-2022, with India, Mexico, Burma, and Vietnam making up over one third of all non-U.S born TB cases.

Country of Origin	Total Cases (2013-2022)
USA	107
India	37
Mexico	37
Burma	23
Vietnam	22
Ethiopia	18
Congo (Brazzaville)	17
Sudan	17
China	16
Bosnia and Herzegovina	14
Congo (Kinshasa)	13
Other (42 Countries)	159
Total	483



Tuberculosis Treatment:

TB disease and LTBI can be treated with several treatment options. TB treatment depends on a variety of factors including HIV status, drug resistance, pregnancy, and treatment of children. It is very important that people who have TB disease finish their treatment and take the drugs exactly as prescribed. If patients stop taking the drugs too soon, they can become sick again; if they do not take the drugs correctly, the TB bacteria that are still alive may become resistant to those drugs. Drug resistant TB is harder and more expensive to treat.

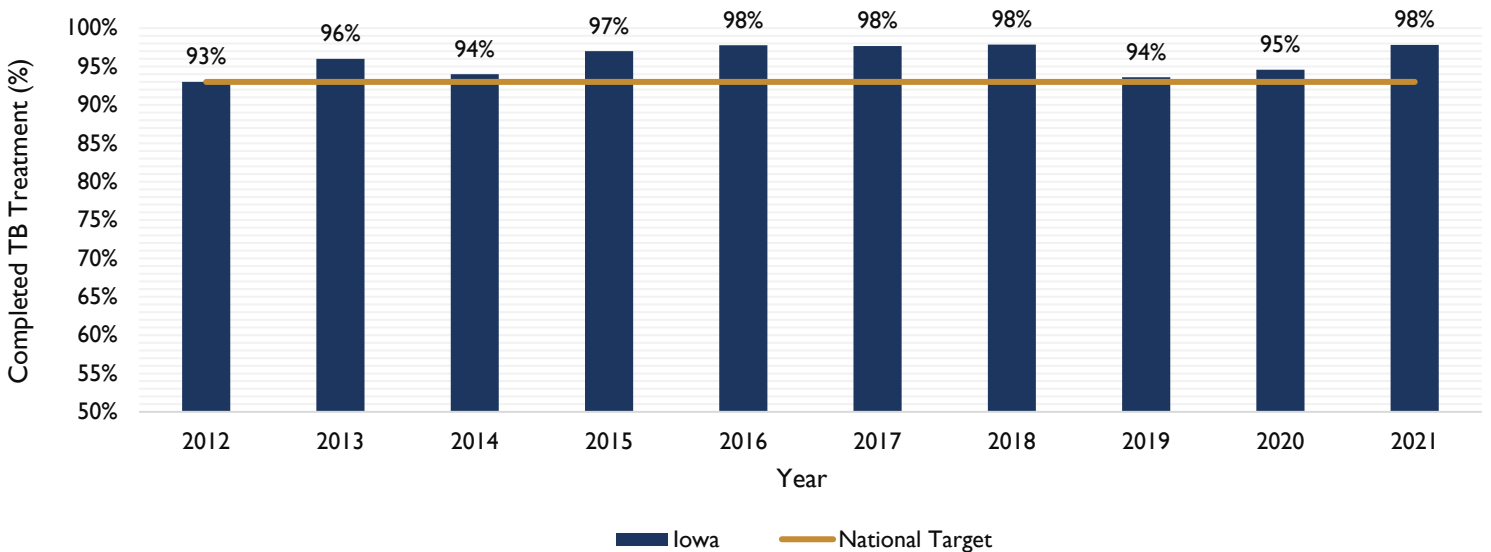
The Iowa TB Control Program provides medication for all LTBI, suspected, and confirmed cases of TB disease at no cost for individuals residing within the state of Iowa. Additional information regarding TB treatment in Iowa can be found [here](#).

93%

National target for TB treatment completion.

Since 2012, Iowa's completed TB treatment percentage has remained above the national target. TB treatment completion for 2022 is not yet available as treatment for cases that occurred in 2022 are still in progress.

Completed TB Treatment in Iowa: 2012-2021



Additional information and resources on TB testing, reporting, administrative rules, treatment, screening, and TB prevention in Iowa can be found [here](#).