

# Latent Tuberculosis Infection

## What is latent tuberculosis infection (LTBI)?

Tuberculosis (TB) is caused by a bacterium called *Mycobacterium tuberculosis* (*M. tuberculosis*). However, not everyone who is infected with this bacterium develops active TB disease. There are two TB-related conditions: LTBI and TB disease.

According to recent estimates, approximately 13 million people in the United States have LTBI. People with LTBI do not have signs and symptoms of TB, and cannot spread *M. tuberculosis* to others.

Approximately 5-10% of people with LTBI will go on to develop TB disease if not treated for LTBI. Progression from untreated LTBI to TB disease accounts for approximately 80% of U.S. TB cases. It is essential that we identify and treat people with LTBI in order to reach our TB elimination goals.

## TB Disease vs. LTBI

### A Person with LTBI

- Has no symptoms
- Does not feel sick
- Cannot spread TB bacteria to others
- Usually has a skin test or blood test result indicating TB infection
- Has a normal chest x-ray and a negative sputum test
- Needs treatment for LTBI to prevent TB disease

### A Person with TB Disease

- May have symptoms including one or more of the following: cough that lasts three weeks or more, fever, chest pain, weight loss, night sweats, fatigue, and decreased appetite
- Usually feels sick
- Can spread TB bacteria to others
- Usually has a skin test or blood test result indicating TB infection
- May have an abnormal chest x-ray, or positive sputum smear or culture
- Needs treatment to treat TB disease

# LTBI in Virginia

Beginning November 14, 2018, LTBI became a reportable condition in Virginia for people of any age. Since then, there have been more than 15,000 confirmed and suspected cases of LTBI reported to the Virginia Department of Health (VDH). Overall, the incidence was higher in females and in persons aged 25-64, with those under the age of 24 having the lowest incidence of LTBI.

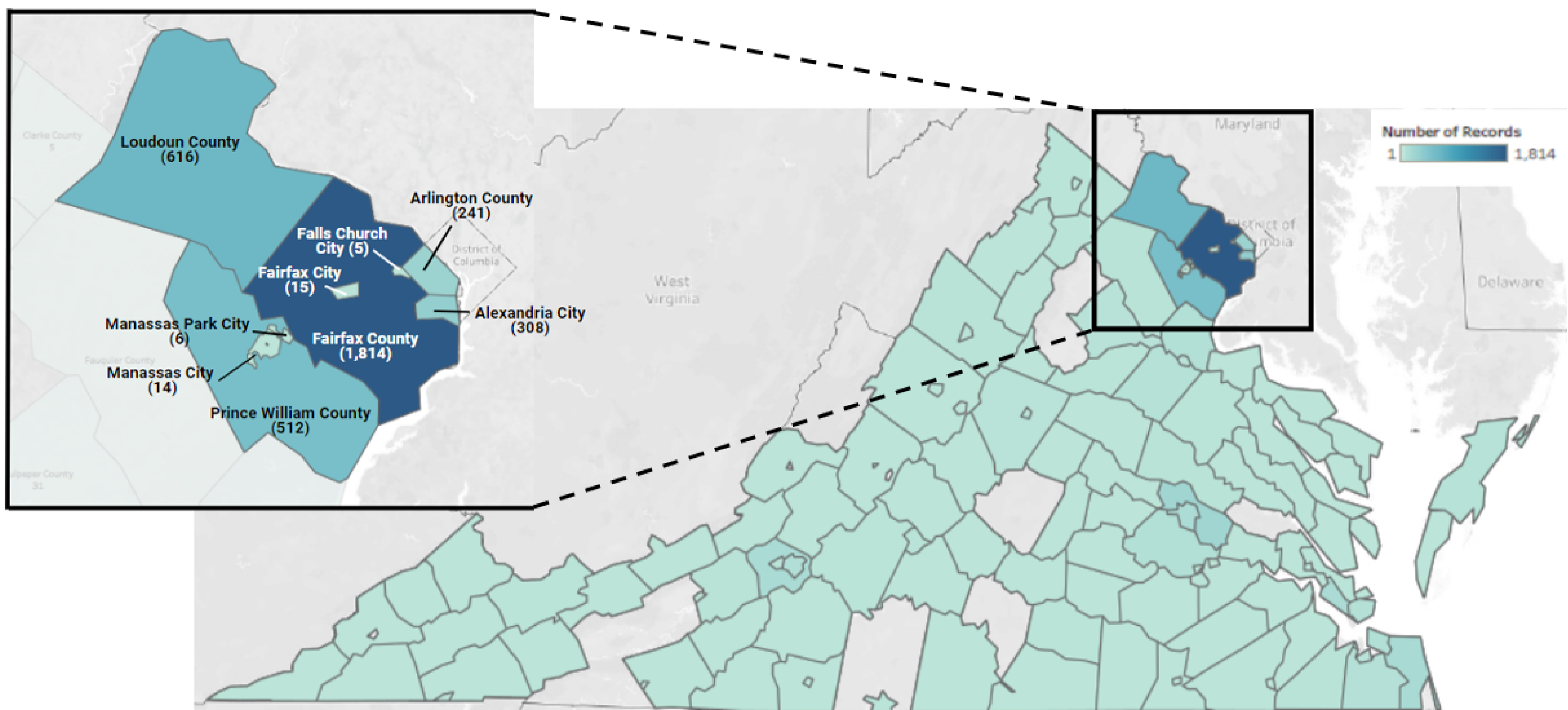
Since LTBI became a reportable condition in Virginia, 63% cases were in the Northern Region, 12% in the Eastern Region, 9% in the Central Region, 8% in the Northwest Region, and 7% in the Southwest Virginia. In particular, the highest number of reported cases were seen in the Fairfax, Loudoun, and Prince William Health Districts with 5,246, 1,546, and 1,534 cases respectively.

Please note, a reported case is classified as confirmed when the patient has received a positive test for infection, either a tuberculin skin test (TST) or interferon gamma release assay (IGRA) and a chest radiograph without abnormalities consistent with TB, while a case is classified as suspect when the patient only received a positive test for infection. This report includes all data reported to VDH as of August 2, 2021 and is subject to change based on reporting delays and ongoing data reconciliation efforts.

## 2019 vs. 2020 Comparison

While there were differences between the reported cases of LTBI in 2019 and 2020, in both years, the majority of reported cases of LTBI were in the Northern Virginia region.

**Figure 1: New Reported Cases of LTBI by County of Residence, Virginia, 2020**



Map based on Longitude (generated) and Latitude (generated). Color shows sum of Number of Records. The marks are labeled by Patient County and sum of Number of Records. Details are shown for Patient County. The data is filtered on Inv Case Status, Case Rpt Mmwr Yr and Patient State. The Inv Case Status filter keeps Confirmed and Suspect. The Case Rpt Mmwr Yr filter ranges from 2020 to 2020. The Patient State filter keeps Virginia.

### 2019

- In 2019, 6,620 cases of LTBI were reported to VDH, 6,607 were classified as suspect and 553 were classified as confirmed.
- In 2019, 37.2% of LTBI cases were among persons 25-44 years of age, followed by 31.8% among 45-64 years, and 11.7% among 65 years and older.
- In 2019, 53% of LTBI cases were among females, 41% among males, and 6% did not report a patient gender.

### 2020

- In 2020, 5,502 cases of LTBI were reported to VDH, representing a 17% decrease in the number of reported cases of LTBI compared to 2019. This decrease is likely due to the impact of the COVID-19 pandemic. In 2020, 5,266 LTBI cases were classified as suspect, and 236 were classified as confirmed.
- In 2019, 42.9% of LTBI cases were among persons 25-44 years of age, followed by 33.3% among 45-64 years, and 11.9% among 65 years and older.
- In 2020, 56% of LTBI cases were among females, 42% among males, and 2% did not report a patient gender.

#### For Providers: How to Report LTBI

- [Click here](#) to report TB infection electronically.
- [Click here](#) to download a morbidity report form (Epi-1) if you prefer to fax a report of TB infection to your local health department.
- Reports should include: results of tests for infection and chest x-ray, treatment information, and underlying conditions.