Eliminating Tuberculosis in Asian-American Communities

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Hep B United Summit

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Overview

- Brief Overview of TB
- CDC’s TB Elimination Strategy
- Current Communication and Education Activities and Resources
- Upcoming Latent TB Infection Campaign and Community Engagement Network
What is the #1 Infectious Disease Killer in the World?

A. HIV
B. Hep B
C. TB
D. Ebola
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TB: The world’s deadliest infectious disease

- 1/4 of the world’s population is infected with TB.
- In 2017, 10.0 million people around the world became sick with TB disease. There were 1.3 million TB-related deaths worldwide.
- Up to 2/3 of people with TB disease will die without treatment.
- Even after treatment, there can be long-term health consequences.
- People with untreated TB disease can infect 4 or more other people through close contact.
Are TB cases in the U.S increasing or decreasing?

A. Increasing
B. Decreasing
Are TB cases in the U.S increasing or decreasing?

A. Increasing

B. Decreasing
Highly successful public health efforts have led to the reduction of U.S. TB cases over the past two decades.

- 26,673 TB cases in 1992
  - Case rate: 10.4 per 100,000
- 9,105 TB cases in 2017
  - Case rate: 2.8 per 100,000

Elimination threshold < 1 case per 1,000,000 population or ~ 300 cases
Tuberculosis

- Tuberculosis (TB) is caused by a bacterium called *Mycobacterium tuberculosis*. 
TB Transmission

- TB is spread through the air from one person to another when a person with TB disease coughs, speaks, or sings.
- People nearby may breathe in these bacteria and become infected.
Latent TB Infection and TB Disease

Not everyone infected with TB bacteria becomes sick. As a result, two TB-related conditions exist: latent TB infection (LTBI) and TB disease.

<table>
<thead>
<tr>
<th>A Person with Latent TB Infection:</th>
<th>A Person with TB Disease:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has no symptoms</td>
<td>Has symptoms (may include cough, fatigue, weight loss, or night sweats)</td>
</tr>
<tr>
<td>Does not feel sick</td>
<td>Usually feels sick</td>
</tr>
<tr>
<td>Cannot spread TB bacteria to others</td>
<td>Can spread TB bacteria to others</td>
</tr>
<tr>
<td>Has a positive TB skin test or blood test</td>
<td>Has a positive TB skin test or blood test</td>
</tr>
<tr>
<td>Needs treatment for latent TB infection to prevent TB disease</td>
<td>Needs treatment for TB disease</td>
</tr>
</tbody>
</table>
Latent TB Infection (LTBI)

- >80% of active TB Disease cases in the US are reactivation TB from long-standing LTBI
- In the US, up to 13 million persons have LTBI
- LTBI treatment is 90% effective in preventing TB disease
Why offer targeted testing and treatment for LTBI?

Treating latent TB infection prevents TB disease.

$18,000
To treat TB disease

$400-$600
To treat latent TB infection

LTBI treatment is 90% effective in preventing TB disease.

Treating latent TB infection is less costly than treating TB disease.
Eliminating TB in the United States is possible

Continue efforts to identify and cure persons with active TB disease

Expand capacity in high-burden jurisdictions for targeted testing and treatment of persons with LTBI

Dual Approach
CDC Strategy for Addressing Latent TB Infection

Accelerate screening and treatment for latent TB infection

- Expand targeted LTBI testing and treatment
- TB Blood Tests (IGRAs)
- Shorter treatments

Outreach to & engagement with affected communities.

Partner with primary care providers who serve affected communities.

Target resources to four highest burden states

51%
The majority of TB cases occur in persons born outside of the United States*

- Non-U.S.—born TB cases (Rate: 14.6 per 100,000)
- U.S.-born TB cases (Rate: 1.0 per 100,000)

*Provisional data, as of February 12, 2018.
Reported TB Cases by Race/Ethnicity,*
United States, 2017†

- Hispanic/Latino: 28%
- Asian: 36%
- Black/African American: 21%
- White: 12%
- Native Hawaiian/Pacific Islander: 1%
- American Indian/Alaskan Native: 1%
- Multiple race: 1%

* All races are non-Hispanic; multiple race indicates two or more races reported for a person, but does not include persons of Hispanic/Latino origin.
† Percentages are rounded.
Countries of Birth Among Non-U.S.–Born Persons Reported with TB, United States, 2017

- Mexico 19%
- Philippines 13%
- India 9%
- Vietnam 8%
- China 6%
- Guatemala 3%
- Haiti 3%
- Other countries 39%

*Percentages are rounded.*
Key Audiences for Latent TB Infection Communication and Education

- In 2017, TB disease was reported in 3,254 Asians in the United States, accounting for nearly 36% of all people reported with TB nationally
  - Filipino
  - Indians
  - Vietnamese
  - Chinese

- Hispanics/Latinos

- Healthcare providers who serve at-risk populations

TB case rates are:

- Higher for Asians than whites.
- Higher for Hispanics/Latinos than whites.
As of September 6, 2016, the U.S. Preventive Services Task Force recommended testing for TB as a part of standard preventive care for certain at-risk groups.

The recommendation applies to asymptomatic adults ≥18 years of age who are at increased risk for TB:

- Born in, or former residents of, countries with increased TB prevalence (e.g., Mexico, Philippines, Vietnam, India, China, Haiti, Guatemala); or
- Currently live in, or have lived in, high-risk congregate settings (e.g., homeless shelters, long-term care facilities, correctional facilities).
Testing and Treatment of LTBI – Milestones

- In June 2018, CDC updated its 2011 recommendation for a 12-dose LTBI treatment regimen to include an option to self-administer medication.

- Shorter regimens of 12 doses (3 months) of isoniazid (INH) plus rifapentine (RPT) is an option equal to the standard 9-month INH regimen.

The 12-Dose Regimen for Latent TB Infection:

- Prevents TB disease
- Saves money
- Results in higher treatment completion
- Is convenient for patients

www.cdc.gov/tb
UN General Assembly High Level Meeting on TB

- Held September 26, 2018
- The meeting was only the fifth time the United Nations (UN) has called for a high-level meeting devoted to a health issue
- Served as an opportunity to showcase the U.S. commitments and achievements to domestic and global TB
- CDC’s domestic focus: Latent TB Infection
Expanding testing and treatment for latent TB infection: the final frontier of TB elimination in the United States

The U.S. has one of the lowest TB disease case rates in the world, thanks to investments in domestic TB programs. But too many people in the U.S. still suffer from TB disease. We must continue to find and treat cases of TB disease AND test and treat persons with latent TB infection to prevent future cases of TB disease.

Over the past 20 years, public health efforts have prevented up to 319,000 cases of TB and averted up to $14.5 billion dollars in costs.

However, progress towards ending TB in the U.S. has slowed to approximately 9,000 TB cases/year.

To reach elimination in the U.S., we must address up to 13 million people with latent TB infection.

More than 80% of U.S. TB disease cases result from longstanding, untreated latent TB infection.

CDC is expanding testing in at-risk populations by:
- Encouraging use of TB blood tests, which are more accurate than skin tests, and require a single patient visit to conduct the test.
- Engaging healthcare providers to reach at-risk communities.

CDC is at the forefront of researching new treatments for latent TB infection.

CDC research identified a shorter more convenient treatment regimen for latent TB infection. Previous regimens lasted 9 months.

Treatment for latent TB infection is less costly than treatment for TB disease.
The time is now for global commitment to address leading infectious disease killer – tuberculosis

BY REBECCA MARTIN, OPINION CONTRIBUTOR — 09/25/18 03:25 PM EDT
THE VIEWS EXPRESSED BY CONTRIBUTORS ARE THEIR OWN AND NOT THE VIEW OF THE HILL

On Sept. 26, 2018, the United Nations General Assembly will hold the first-
Activities and Resources
Connect with CDC TB!

- **On the web:** [www.cdc.gov/tb](http://www.cdc.gov/tb)
- **On social media:**
  - Twitter: [@CDC_TB](https://twitter.com/CDC_TB)
  - Facebook: [@CDCTB](https://www.facebook.com/CDCTB)
- **In your inbox:**
LTBI Resources Online Hub

- One-stop shop for resources, materials, and links to latent TB infection and USPSTF materials

- Since 2016:
  - Over 35,000 views
  - Over 22,000 unique visitors
  - Over 8,000 downloads

https://www.cdc.gov/tb/publications/ltbi/ltbiresources.htm
Latent TB Infection Infographics, Graphics & Web Buttons

Tuberculosis (TB) Disease: Only the Tip of the Iceberg

There are two types of TB conditions: TB disease and latent TB infection.

- **TB Disease**: If TB germs become active and multiply in the body, a person may develop active TB disease. Symptoms may include coughing, fever, weakness, and weight loss. Treatment is necessary to prevent the spread of TB to others.

- **Latent TB Infection**: If TB germs become active and multiply in the body but do not cause disease, the person is said to have latent TB infection. This does not mean the person is sick, but it does mean the person can develop active TB disease in the future. Regular follow-up can help prevent this from happening.

**People with TB disease** are sick and can spread active TB germs. They are more likely to have symptoms and can spread TB germs to others.

**People with latent TB infection** do not feel sick, do not spread TB, and cannot develop TB disease.

To learn more about TB, visit www.cdc.gov/tb
Culturally Appropriate Patient Education Materials

Available in English, Spanish, Tagalog, and Vietnamese
LTBI Treatment Resources for Patients

- **Patient Education Materials**
  - Patient Information Brochure
  - Medication Tracker and Symptom Checklist
  - Materials are available in Spanish, Tagalog, Vietnamese, and Mandarin
Asian Community

In 2017, a total of 9,105 TB cases were reported in the United States; however, Asians continue to be impacted by TB at a greater rate compared to other racial and ethnic groups.

Several important factors contribute to the higher rates of TB among racial/ethnic groups, including Asians. These factors include being born in a country with a high rate of TB or travel to a country with a high rate of TB.

The Numbers

- In 2017, TB disease was reported in 3,254 Asians in the United States, accounting for nearly 36% of all people reported with TB nationally.
- The rate of TB disease is 33 times higher for Asians than non-Hispanic whites.

Countries with highest TB burden among non-U.S.-born Asians, 2017:

1. Philippines
2. India
3. Vietnam
4. China
5. Myanmar

[Reported TB Cases by Origin and Race/Ethnicity*, United States, 2017](https://www.cdc.gov/tb/surveillance/rept/2017/07.htm)
Find TB Resources Website

- Searchable database of national and international TB education & training resources
- Monthly Newsletter
  - Highlight of the Month
  - Additional Resources in the database

https://findtbresources.cdc.gov
TB Personal Stories

- Personal Stories project launched in 2014
- Focuses on different aspects of TB experience
- Target audiences
  - Current patients and families
  - TB survivors
  - Health care providers
  - Policy makers
Message Testing

- CDC conducted focus groups on latent TB infection with non-U.S. born populations (including people born in Mexico, the Philippines, India, Vietnam, and China)

- Concepts include:
  - Terminology
  - Risk Factors
  - Treatment
  - BCG vaccine
  - Trusted sources of health information

- Findings will help inform future communication and education projects
So... What are we hearing... (Very preliminary)

- Little to no knowledge of TB vs. LTBI—
  - Little familiarity with the term “latent”
  - Explored alternatives: dormant, sleeping, inactive, delayed

- Confusion between BCG and TST
  - Some reference to both as the “TB Shot”

- No knowledge of TB blood test

- Targeted communication efforts needed

- Different perceptions of TB as an issue in country of birth

- Link to diabetes resonates
Coming Soon!
Latent TB Infection Communications Campaign and Community Engagement Network
Expanding LTBI testing and treatment: the final frontier of TB elimination in the U.S.

- Eliminating TB requires expanding testing and treatment of latent TB infection (LTBI).
- CDC and USPSTF recommend testing populations at increased risk for LTBI, including people born in or who frequently travel to countries where TB disease is common.
- By developing targeted campaign(s) for LTBI and working with community partners, we can increase awareness of LTBI and encourage testing and treatment among at-risk populations.
Goals

1. Develop a targeted communications campaign to encourage testing and treatment among at-risk populations.

2. Develop a partner network to engage at-risk communities to assist with outreach and other activities to encourage testing and treatment for latent TB infection.
Methods

- DTBE will develop the campaign and the community engagement network in parallel.
- Campaign messages will be influenced by upcoming message testing project in addition to extensive formative research.
- Campaign materials will be culturally and linguistically appropriate (developed in-language).
- Use existing initiatives, such as CDC’s Know Hep B Campaign as a model.
Know Hepatitis B Campaign

- Multilingual campaign developed by CDC & Hep B United
  - Launched in 2013
  - Phase each ~ year

- Goal: Increase testing for chronic Hepatitis B
- Audience: Asian Americans
- Languages: Chinese, Korean, Vietnamese

www.cdc.gov/KnowHepatitisB
**TB Campaign Objectives**

- Raise awareness about LTBI, risk, and link between infection and disease
  - Address misperceptions
  - Decrease stigma
  - Encourage testing and treatment
- Increase awareness of treatment for LTBI (especially shorter regimens)
- Encourage providers to test and treat LTBI among at-risk populations
TB Community Engagement Network Strategies and Activities

- **Networking**
  - Community-based organizations, health centers, professional associations, and others
  - Members should actively serve target populations

- **Capacity Building**
  - Educational outreach to target populations
  - Technical assistance on LTBI testing and treatment

- **Campaign Implementation**
  - Provide feedback on campaign materials and strategies
  - Assist with dissemination of campaign materials
TB Campaign Evaluation

- Work with CDC’s TB Epidemiologic Studies Consortium sites and Oregon Community Health Information Network (OCHIN) for select outcome evaluation in 1-2 sites

- Possible models include:
  - Pre/Post evaluation of testing and/or treatment rates in select markets
  - Evaluation of awareness of latent TB infection and exposure to the campaign
  - Knowledge assessments among target audiences
In Summary...

- Expanding testing and treatment for latent TB infection is essential to achieve the goal of TB elimination in the United States.
- Efforts to address latent TB infection must include at-risk communities, public health systems, and private healthcare providers.
- CDC is working on communication and education tools and resources to increase awareness of latent TB infection.
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Questions?

www.cdc.gov/tb

For more information, contact CDC
1-800-CDC-INFO (232-4636)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.