Hepatitis B Foundation
www.hepb.org

AAPCHO
Association of Asian Pacific Community Health Organizations

Examining the Intersection of

Hep B and TB

June 30, 2025

Hep B United™
hepbunited.org

TB Elimination Alliance

PARTICIPATING IN THE WEBINAR

Audio – Attendees on mute

Chat – Hello! Feel free to drop a chat and respond to open-ended poll questions

Questions? Please type questions in the Q&A window

**The session is being recorded. We will also share slide presentations.*

Speakers:

Frank Hood

Associate Director of Policy and Partnerships

Hepatitis B Foundation

Chibo Shinagawa
Associate Director, Infectious Diseases
Project Director, TB Elimination Alliance
AAPCHO

Moderated by:

Shreya Koirala

Public Health Program Coordinator

Hepatitis B Foundation

About the Hepatitis B Foundation

The only national non-profit dedicated to finding a cure and improving the quality of life for those affected by hepatitis B worldwide

HBF

- Outreach & Education
- Public Health Research
- Policy & Advocacy
- Education & Training
- PA Biotechnology Center & Biotech Incubator

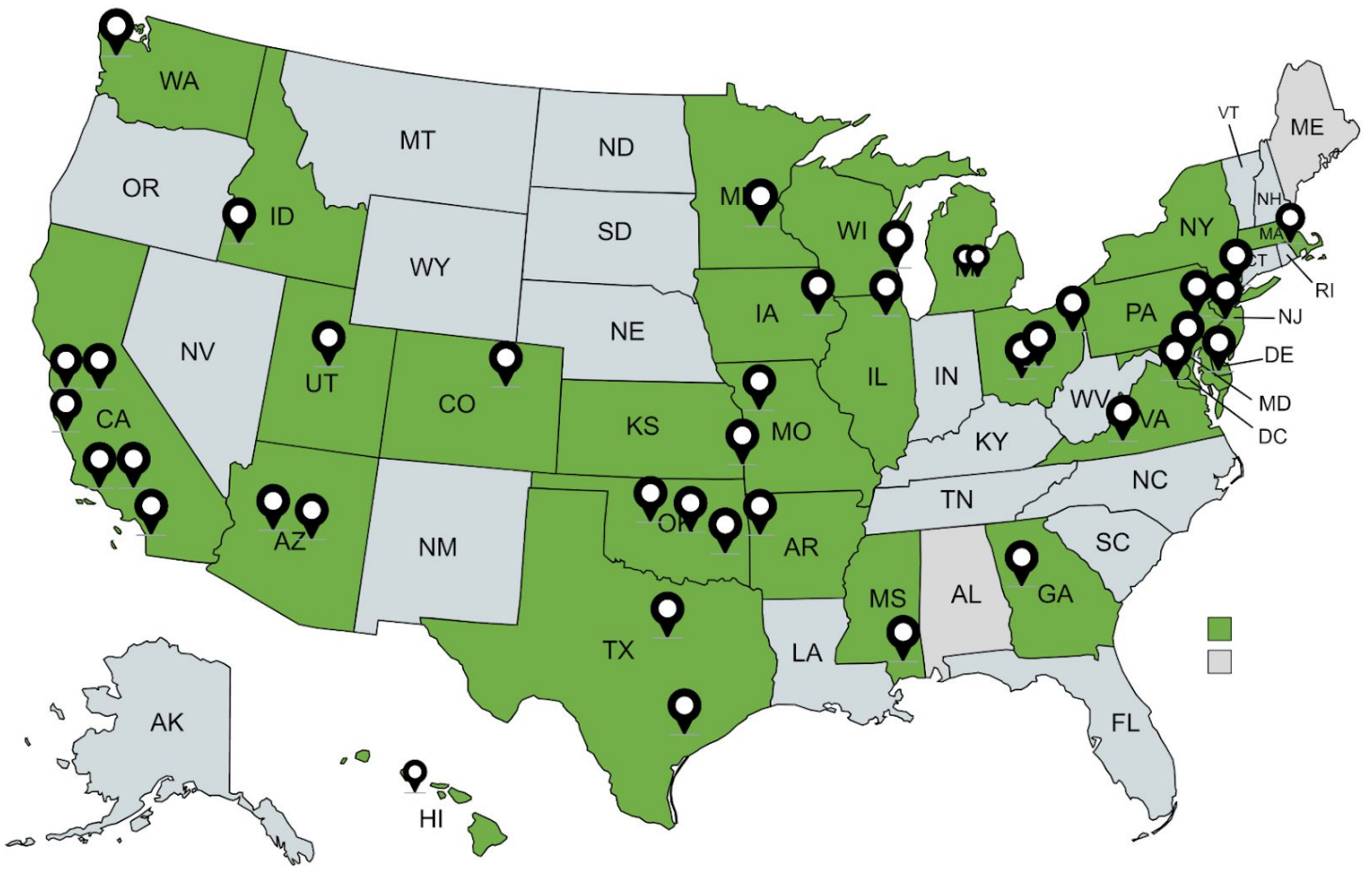
BARUCH S. BLUMBERG RESEARCH INSTITUTE

- Biomedical Research - drug discovery & early detection methods for cirrhosis and HCC

HEPATITIS B FOUNDATION

Hep B United
A National Coalition

- Founded in 2012 with support from HHS Office of Minority Health
- More than 60 organizations in 37 cities and 28 states
- **Mission -** Hep B United is a national coalition dedicated to reducing the health disparities associated with hepatitis B by increasing awareness, screening, vaccination, and linkage to care for high-risk communities across the United States.

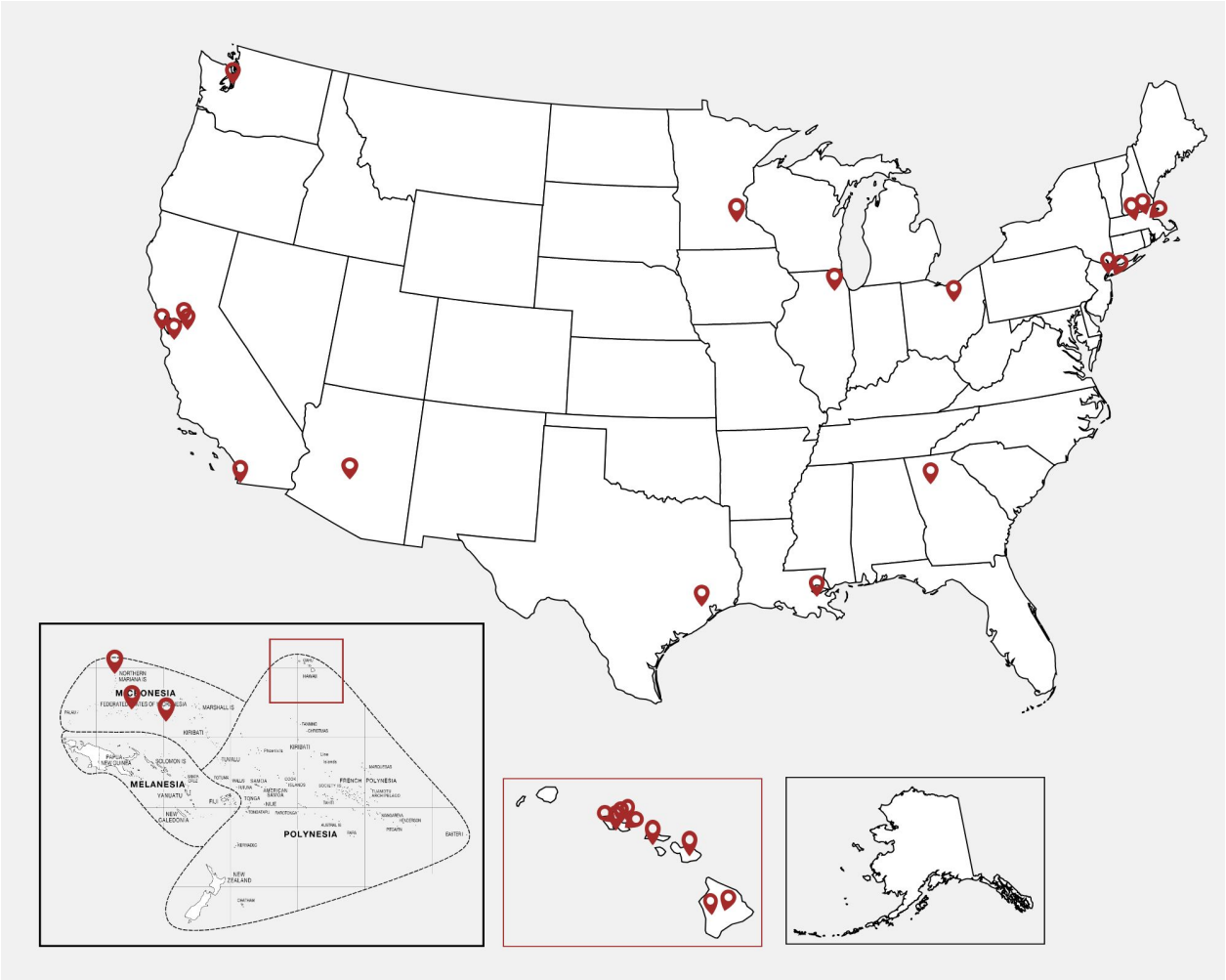


About AAPCHO

The Association of Asian Pacific Community Health Organizations (AAPCHO) was formed to create a national voice to advocate for the unique and diverse health needs of AA and NHPI communities and the community health providers that serve their needs.

Mission & Impact

AAPCHO is dedicated to promoting **advocacy**, **collaboration**, and **leadership** that improves the health status and access of Asian Americans (AAs), Native Hawaiians (NHs), and Pacific Islanders (PIs) within the United States, the U.S. territories, and the Freely Associated States.



TB ELIMINATION ALLIANCE

AAPCHO
ASSOCIATION OF ASIAN PACIFIC COMMUNITY HEALTH ORGANIZATIONS

APIAHF
ASIAN & PACIFIC ISLANDER AMERICAN HEALTH FORUM

HEPATITIS B FOUNDATION

Stop TB USA

Our Mission

The TB Elimination Alliance is a national partnership of community leaders dedicated to eliminating TB and LTBI inequities among Asian American and Native Hawaiian/Pacific Islander populations through education, raising awareness, and innovation.

Our Vision

Healthy communities free of tuberculosis.

Hep B 101

Hepatitis B

- Bloodborne
- Vaccine preventable
- Can become chronic
- No cure, but lifelong treatment
- U = U
- 17,650 newly reported chronic cases in 2023
- 14,400 estimated new acute cases in 2023
- Cases have plateaued after years of declining numbers
- Estimated prevalence of 862,000-2,400,000

- 25% of chronic hepatitis B infections progress to liver cancer or cirrhosis
- 5-10% of chronic cases lead to liver cancer without cirrhosis
- Most widespread infectious disease globally (~300M)
- ~66% unaware of status
- Can lead to Hepatitis D(elta) virus
- Rates remain low in children and adolescents, likely due to childhood vaccinations

Hep B and Liver Cancer

By the Numbers:

From 2013-2017 in the U.S., liver cancer was...

- the fifth most common cause of cancer death for men overall;
- second most common cause of cancer death among API men;
- Fourth most common cancer death among AI/AN and Hispanic males.
- Asians and Blacks (African Immigrant & African American) with HBV have risk of HCC that is 11 to 17-fold higher compared to Whites.
- The 5-year liver cancer survival rate is low, at just 21%

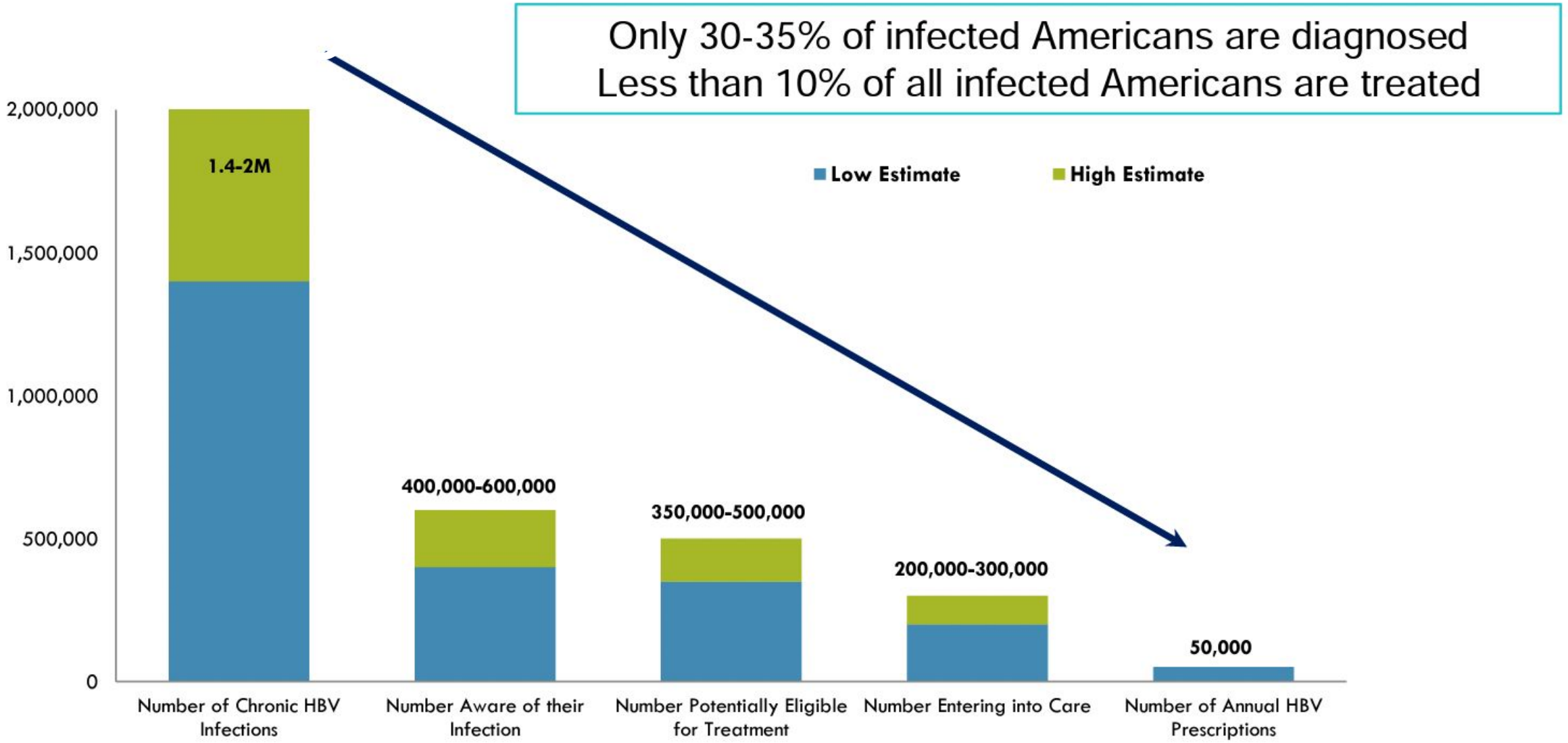
TB 101

What is TB?

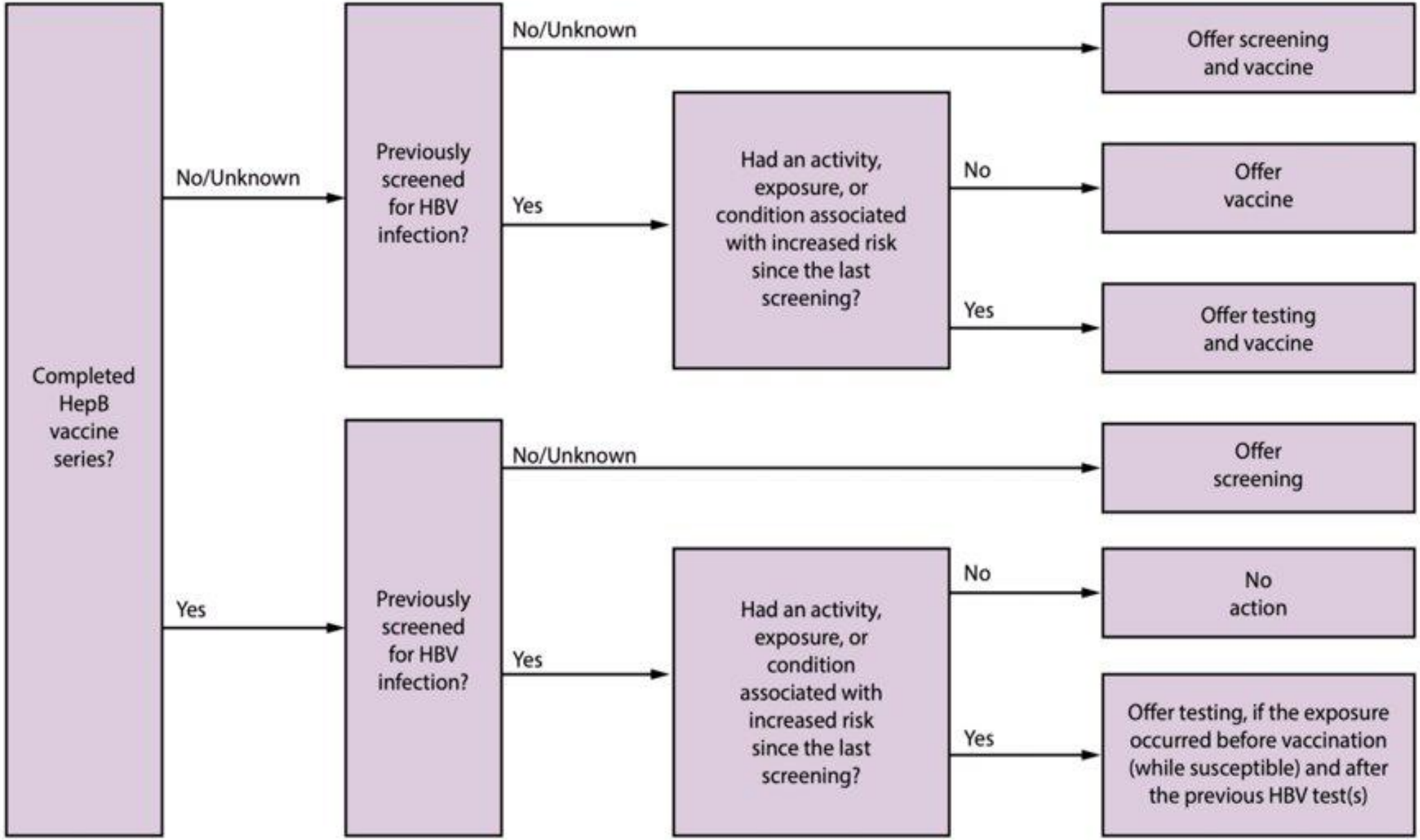
- TB is spread from person to person through the air
- TB is a disease caused by bacteria called Mycobacterium tuberculosis. The bacteria, or TB germs, usually attack the lungs. However, TB germs can attack any part of the body such as the kidney, spine, or brain
- Pulmonary TB is TB in the lungs
- Extrapulmonary TB is TB in places other than the lungs, such as the kidney, spine, or brain
- Not everyone infected with TB germs becomes sick
- TB is not a disease of the past
- Too many people in the United States still suffer from TB
- 10.8 million cases were reported worldwide in 2023
- In 2023, there were 9,633 cases of TB disease in the United States, the highest reported since 2013.
- TB is a serious disease that can cause a person to become very sick if not treated with medicine
- Treatments are available to prevent and cure TB

Source: CDC

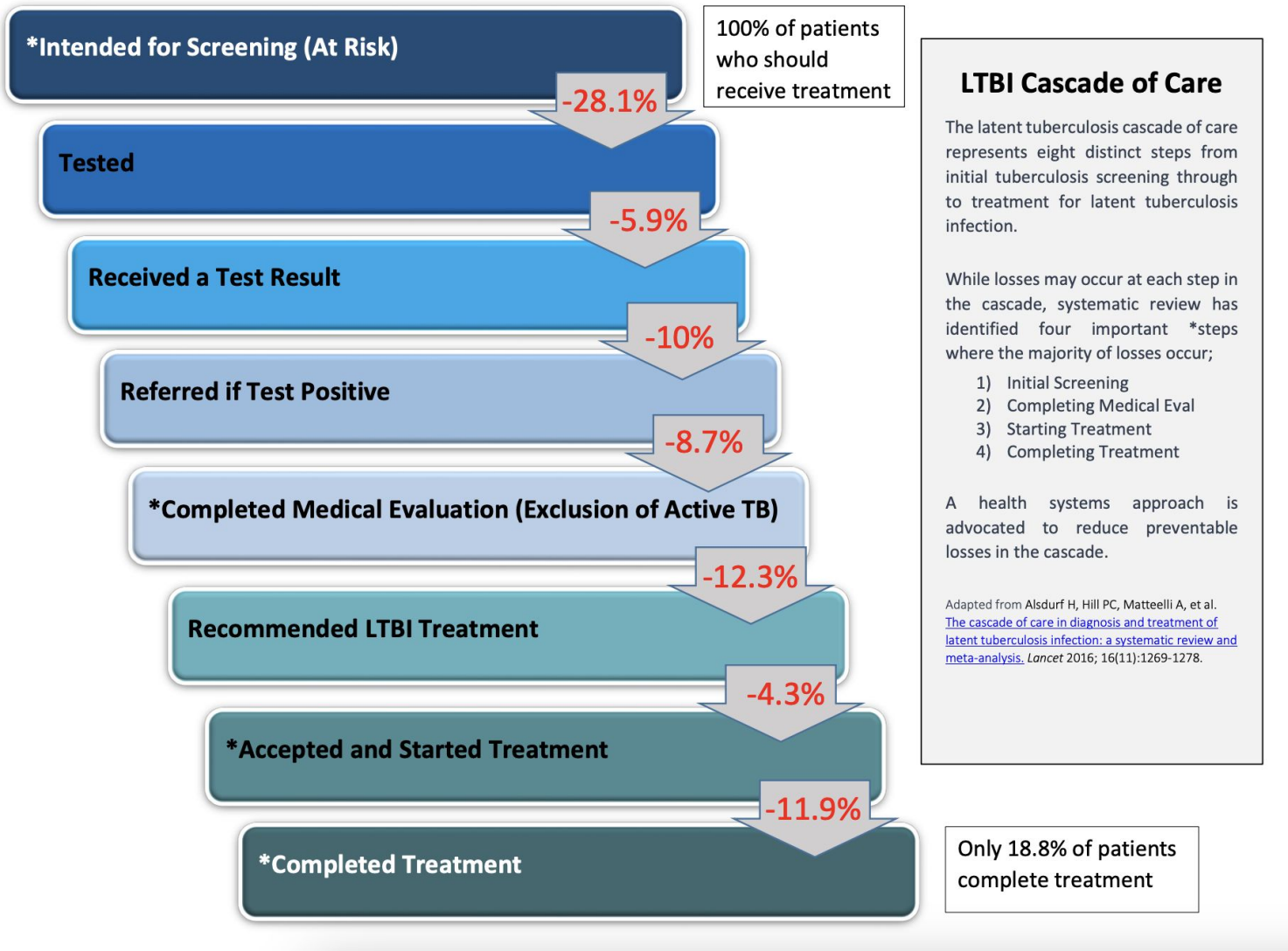
Hepatitis B Care



Cohen C, H. S., McMahon BJ, Block JM, Brosgart CL, Gish RG, London WT, Block TM. (2011). Is chronic hepatitis B being undertreated in the United States? Journal of Viral Hepatitis, 18,


Completed HepB vaccine series?
No/Unknown
Previously screened for HBV infection?
No/Unknown
Offer screening and vaccine
Yes
Had an activity, exposure, or condition associated with increased risk since the last screening?
No
Offer vaccine
Yes
Offer testing and vaccine
Yes
Previously screened for HBV infection?
No/Unknown
Offer screening
Yes
Had an activity, exposure, or condition associated with increased risk since the last screening?
No
No action
Yes
Offer testing, if the exposure occurred before vaccination (while susceptible) and after the previous HBV test(s)

LTBI Care Cascade



LTBI Cascade of Care

The latent tuberculosis cascade of care represents eight distinct steps from initial tuberculosis screening through to treatment for latent tuberculosis infection.

While losses may occur at each step in the cascade, systematic review has identified four important *steps where the majority of losses occur;

1) Initial Screening
2) Completing Medical Eval
3) Starting Treatment
4) Completing Treatment

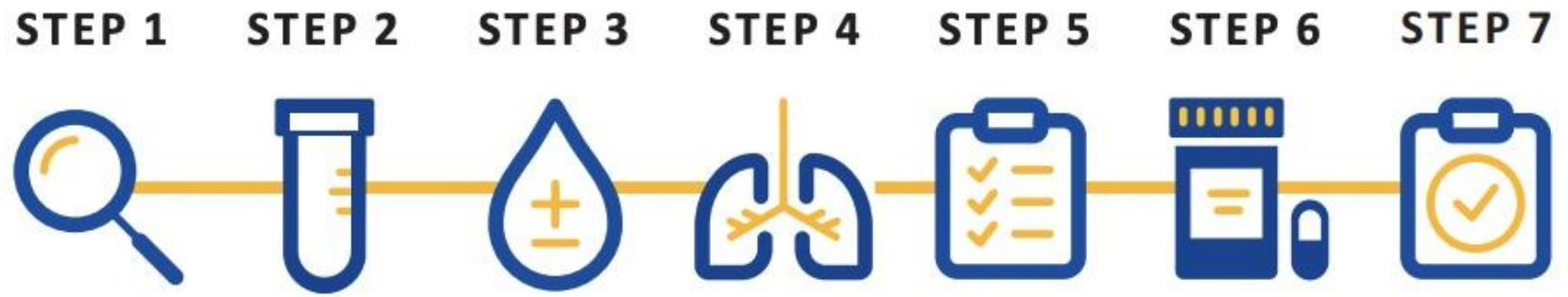
A health systems approach is advocated to reduce preventable losses in the cascade.

Adapted from Alsdurf H, Hill PC, Matteelli A, et al. The cascade of care in diagnosis and treatment of latent tuberculosis infection: a systematic review and meta-analysis. *Lancet* 2016; 16(11):1269-1278.

Source: IHS.gov

TB Care Cascade

FIGURE 3: Steps in the LTBI care cascade



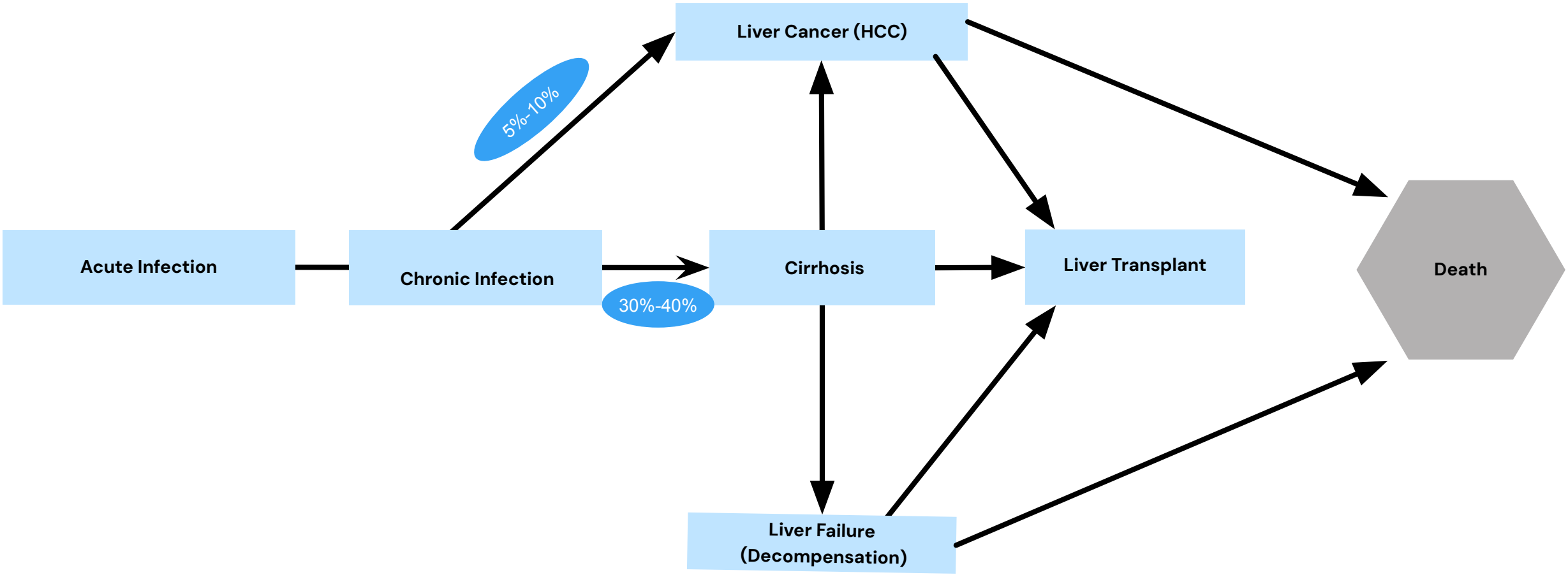
STEP 1	STEP 2	STEP 3	STEP 4	STEP 5	STEP 6	STEP 7
Assess patient risk for TB infection	Test for TB infection, IGRA preferred	Document positive tests for TB infection	Evaluate patient for TB disease, including chest x-ray	Complete chest x-ray and document normal result	Prescribe LTBI treatment	Retain patient in care and document treatment completion

Source: Preventing TB in Your Clinical Setting, CDPH, TB Control Branch

Hepatitis B Transmission

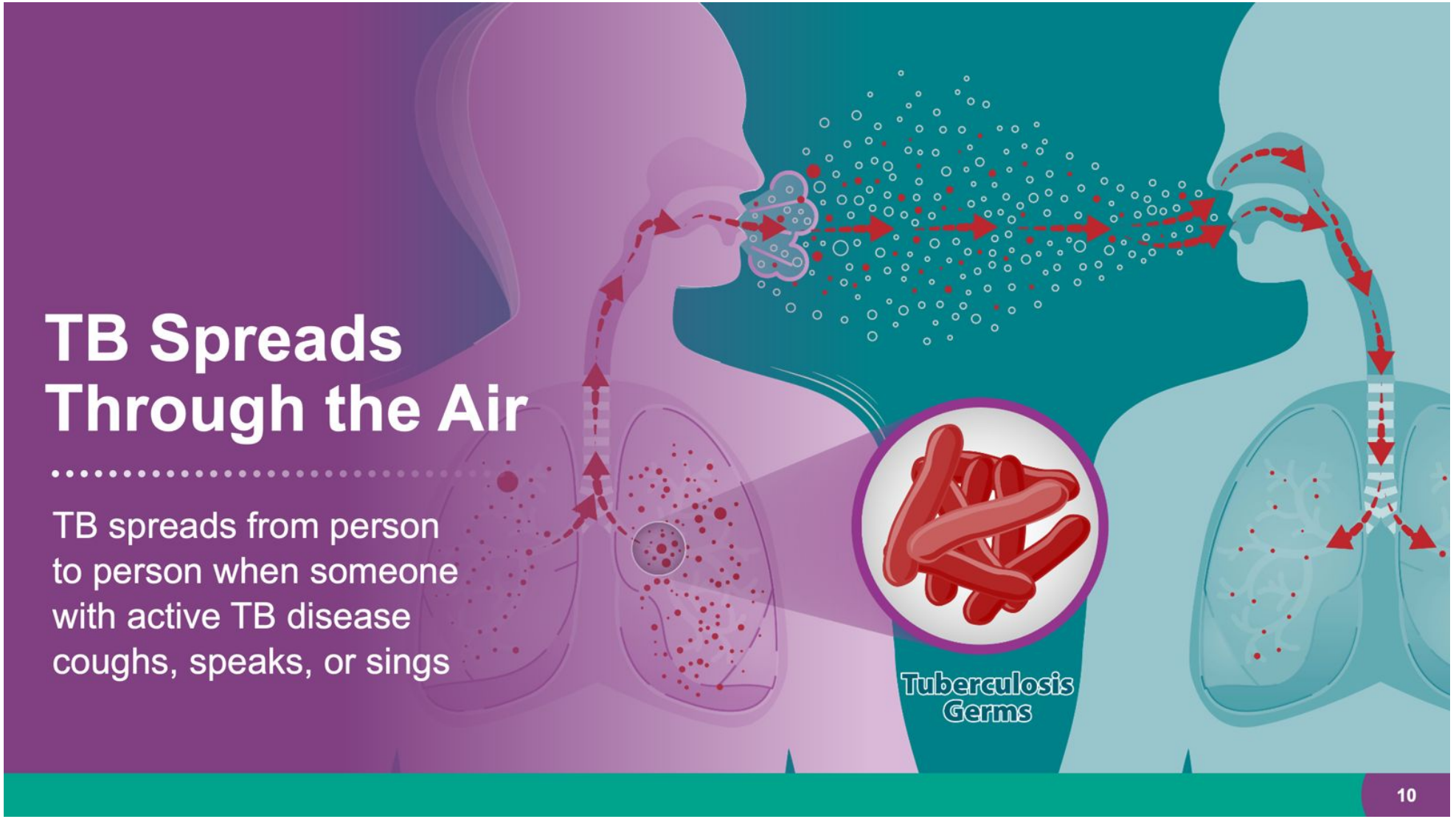
- Spread by direct contact with infected blood
- Most commonly from a mother to her newborn during childbirth
  - Infants exposed to hepatitis B during childbirth have a 90% chance of developing a chronic or lifelong infection of hepatitis B.
  - Treatment during pregnancy can help prevent transmission
- Unprotected sex with an infected individual
- Use of contaminated or unsterile medical or injection equipment
    - ~35% of new cases could be due to drug use

Hepatitis B Disease Progression



Moyer LA, Mast EE. Am J Prev Med. 1994;10(suppl):45-55. 2. Perrillo RP, et al. Hepatology.

TB Progression



Source: CDC

TB Is NOT Spread by

Sharing toothbrushes

Saliva from kissing

Shaking someone's hand

Touching bed linens or toilets

Sharing food, drink, or utensils

Two TB-Related Conditions

Inactive TB

- People with latent TB infection or inactive TB
- Do not feel sick, do not have symptoms, and cannot spread TB germs to others
  - Can have inactive TB for years
  - Have a small amount of TB germs in their bodies that are alive but inactive
- Inactive TB **can** develop into TB disease

TB Disease

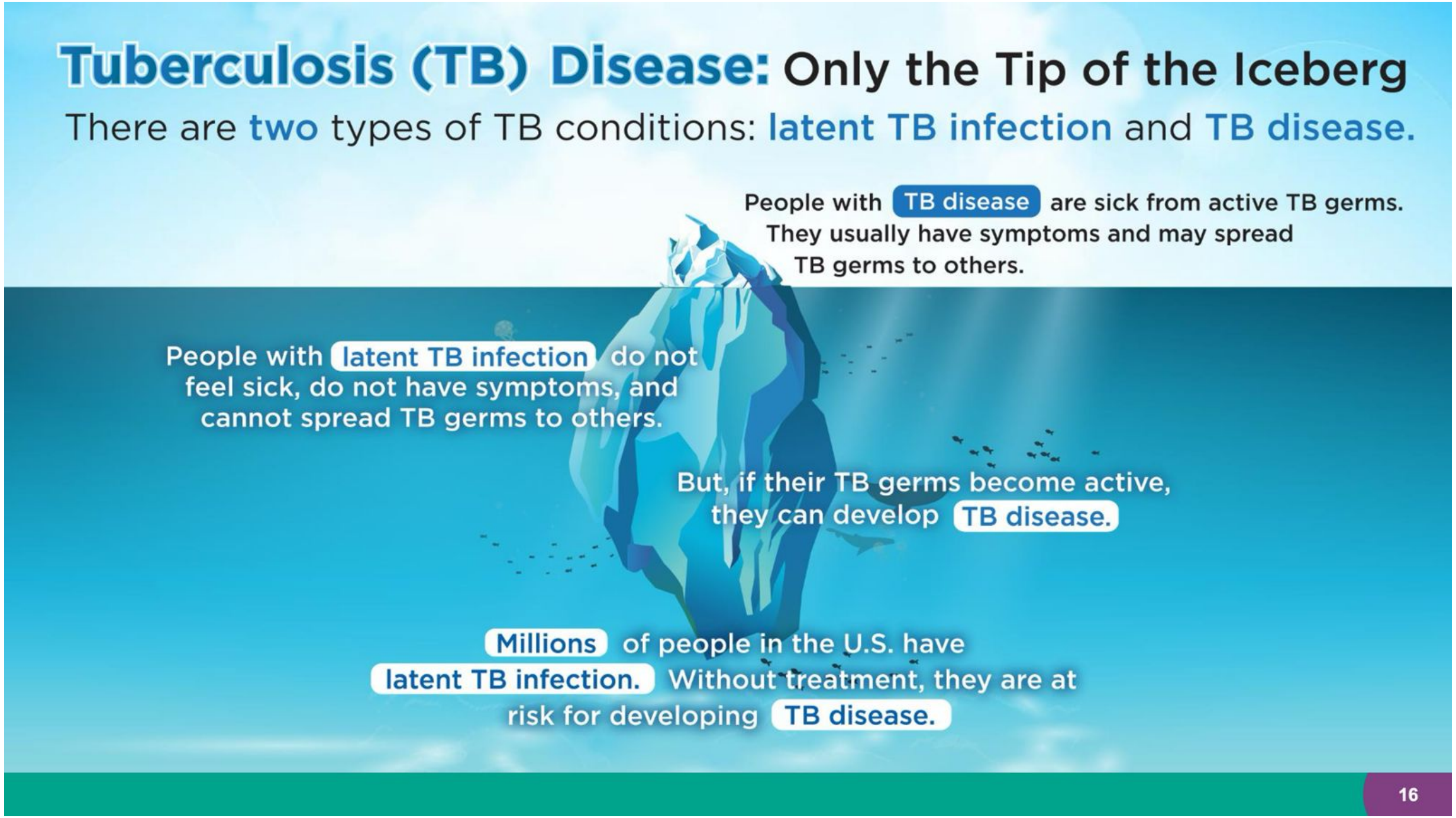
- If TB germs become active and multiply, inactive TB can turn into TB disease

Untreated Inactive TB Can Lead to TB Disease

- If the immune system can't stop TB germs from growing, they become active (multiplying in your body); this is called TB disease
- Most people diagnosed with TB disease in the United States become sick after living with inactive TB for years
- It is estimated that up to **13 million people** in the United States have inactive TB
- Inactive TB treatment is **90% effective** in preventing the development of TB disease

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

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



Health Disparities - Who is Impacted by Hepatitis B in the U.S.?

- Asian Americans, Native Hawaiians, and Pacific Islanders
  - Comprise less than 6% of the U.S. population, but account for over 60% of all chronic hepatitis B cases in the country
- African Immigrants
  - Communities can have infection rates as high as 18%
  - People who inject drugs
- People with HIV and hepatitis C
- People with kidney disease/diabetes
- However, anyone can be at some degree of risk for hepatitis B in their lifetime.

2023 Stats

- The rate of newly reported chronic hepatitis B cases among non-Hispanic Asian/Pacific Islander (A/PI) persons (18.9 cases per 100,000 population) was **9.9 times** as high as the rate among non-Hispanic White persons (1.9 cases per 100,000 population).
- The rate of newly reported chronic hepatitis B cases was highest among persons aged **30–39** and **40–49**; these two age groups combined accounted for **46%** of all newly reported chronic hepatitis B cases.

Who Is at Higher Risk for Becoming Infected with TB Germs?

Anyone can get TB

Some people have a higher risk of getting infected with TB:

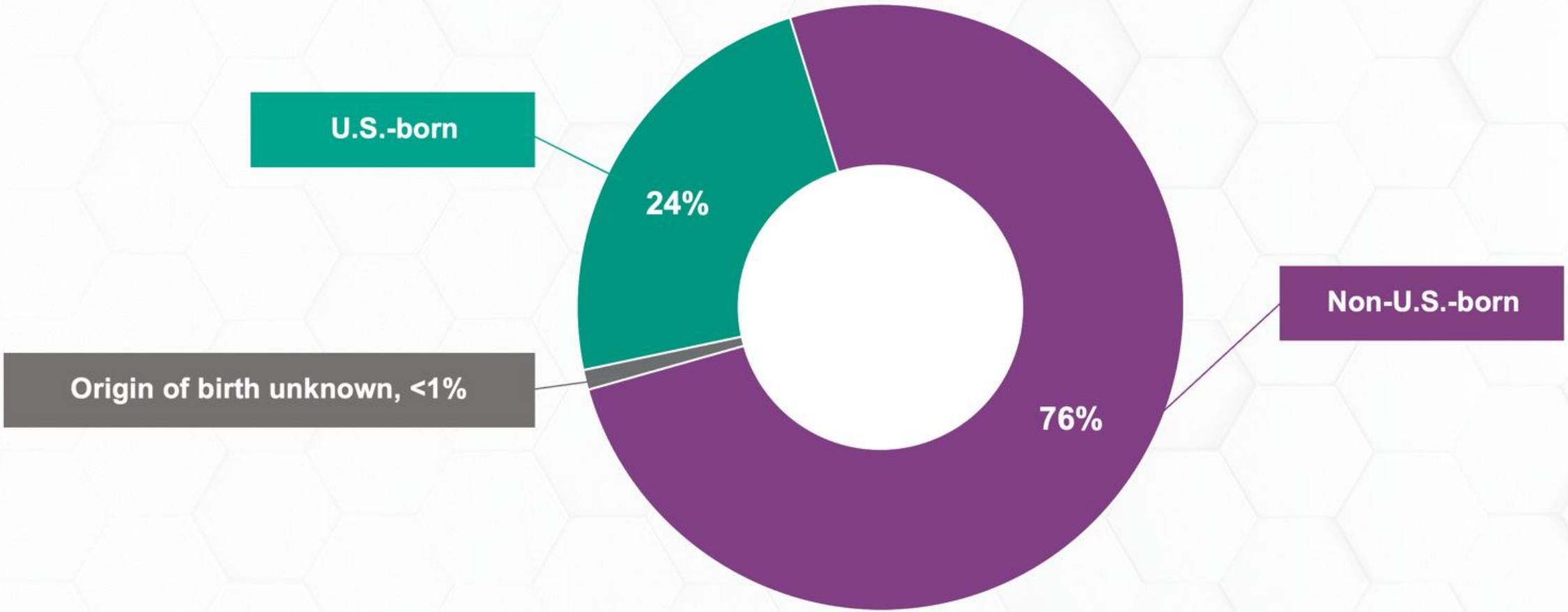
- People who have contact with someone who has infectious TB disease
- People who were born in or who frequently travel to countries where TB disease is common, including some countries in Asia, Africa, or Latin America
- Health care workers and others who work or live in places at high risk for TB transmission, such as homeless shelters, jails, and nursing homes

TB Impacts People from All Over the United States

TB Personal Stories

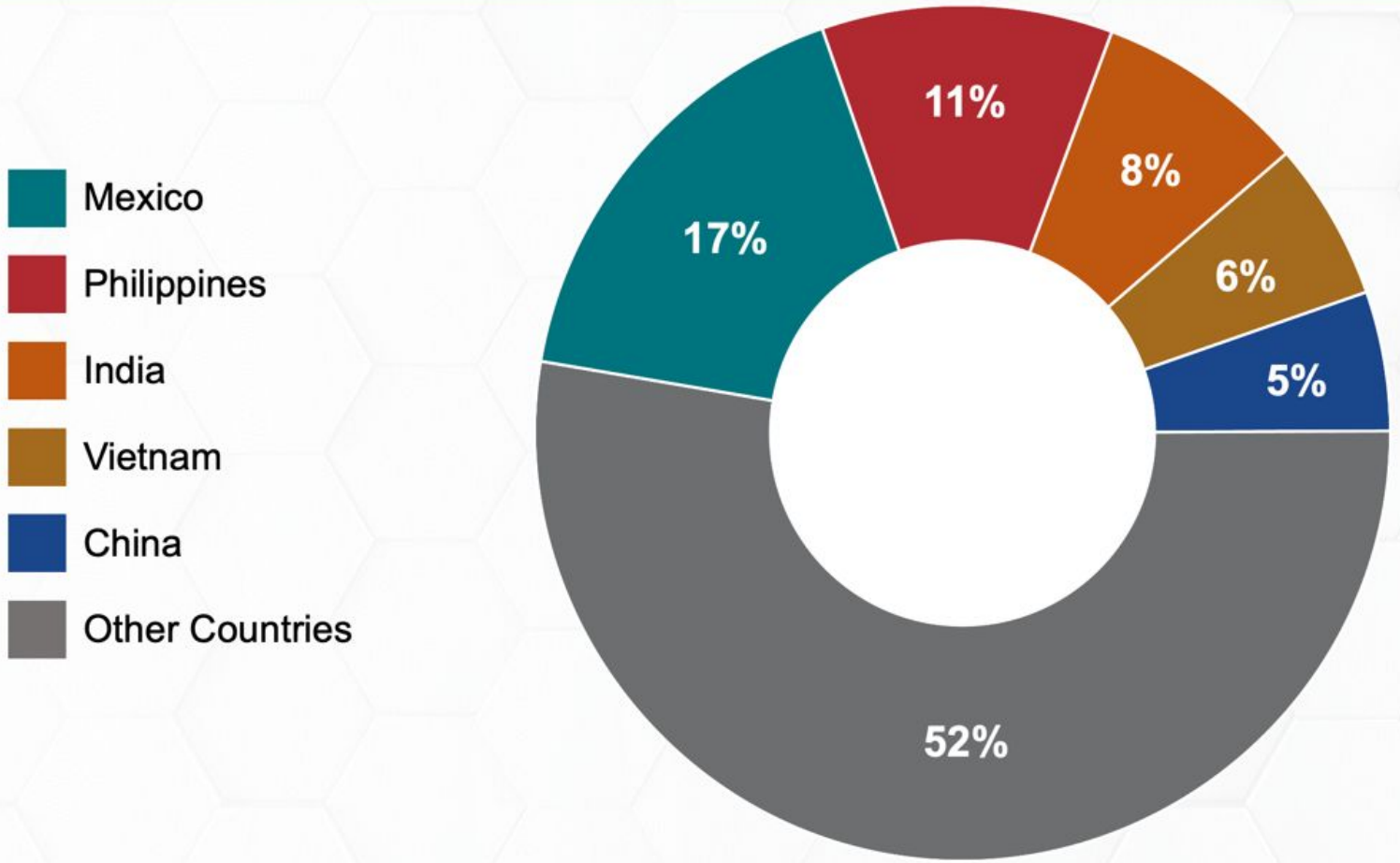
https://www.cdc.gov/tb/stories/

TB Incidence Rates and Percentages by Origin of Birth,* United States, 2023 (N=9,633)



*Percentages are rounded; data from 2023

TB Cases by Countries of Birth Among Non-U.S.-Born* Persons, United States, 2023 (N=7,299)



*Percentages are rounded

Who Is at Risk for Developing TB Disease?

People at higher risk for developing TB disease generally fall into two categories:

- Those who have been recently infected with TB germs
- Those with medical conditions that weaken the immune system, such as:

HIV infection

Diabetes

Specialized treatment for rheumatoid arthritis or Crohn's disease

Organ transplants

Severe kidney disease

Head or neck cancer

Substance use

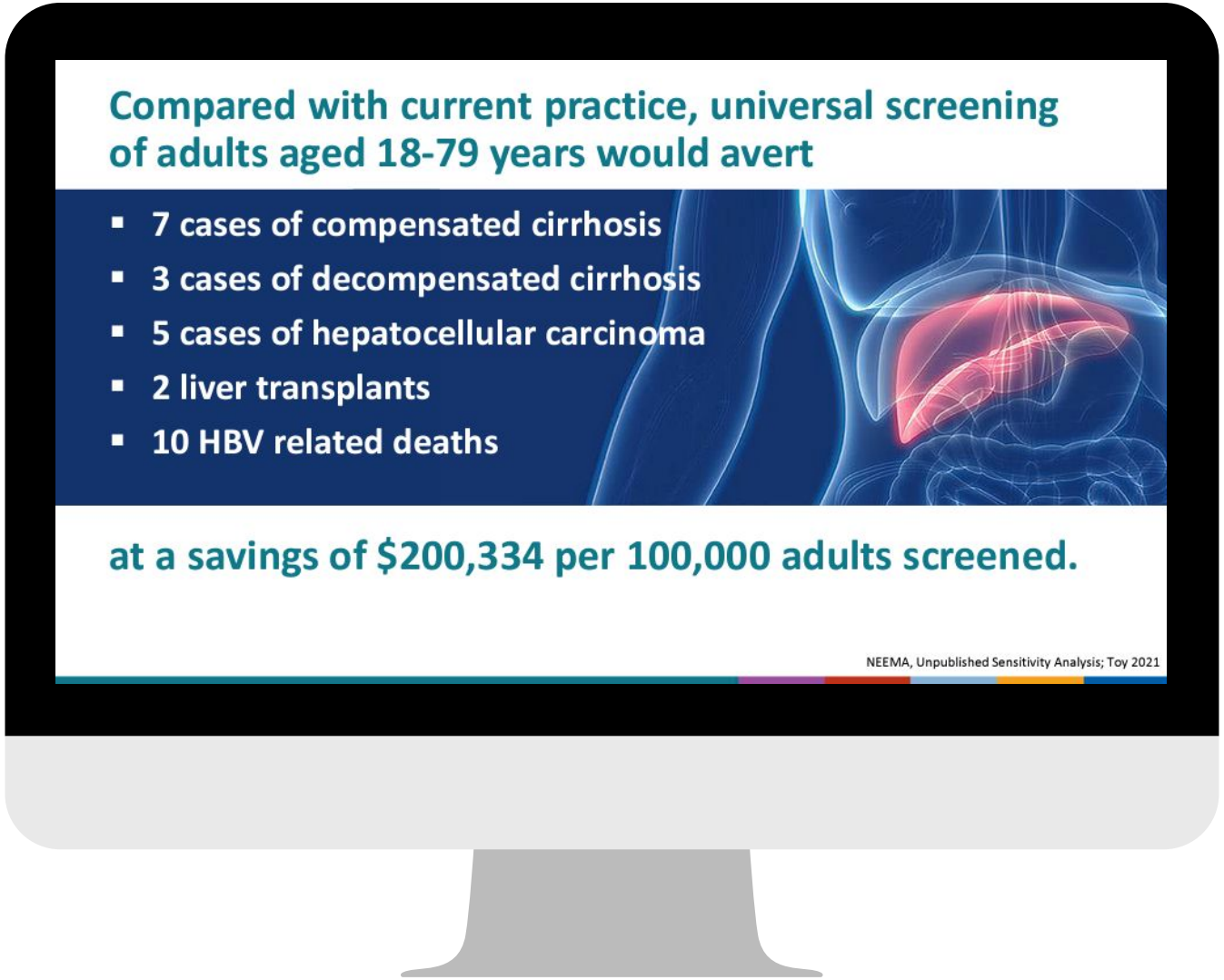
Medical treatments such as corticosteroids

Silicosis

Low body weight

Universal One-time Hepatitis B Screening for Adults 18 and older

MARCH 2023



via CDC_Updated_HBV_Giuidelines_Presentation

HEPATITIS B FOUNDATION

Interpreting Hepatitis B Blood Test Results

Interpretation & Action Needed	HBsAg Hepatitis B Surface Antigen	HBsAb (anti-HBs) Hepatitis B Surface Antibody	HBcAb (anti-HBc) Hepatitis B Core Antibody
Not Immune - Not Protected Has not been infected, but still at risk for possible hep B infection. Vaccine is needed.	–	–	–
***Immune Controlled - Protected** Surface antibodies present due to natural infection. Has recovered from a prior hep B infection. Cannot infect others. No vaccine is needed.	–	+	+
Immune - Protected Has been vaccinated. Does not have the virus and has never been infected. No vaccine is needed.	–	+	–
Infected Positive HBsAg indicates hep B virus is present. Virus can spread to others. Find a doctor who is knowledgeable about hep B for further evaluation. More Testing Needed.	+	–	+
***Could be Infected** Result unclear - possible past or current hep B infection. Find a doctor who is knowledgeable about hep B for further evaluation. More Testing Needed.	–	–	+

*Inform all doctors about a prior or current hepatitis B infection and include this information as part of your health history.
Talk to doctors before taking immune system suppressing medications to understand the risk for possible hep B reactivation.

Two Types of Tests Can Be Used to Diagnose TB Infection

TB BLOOD TEST

OR

TB SKIN TEST

If either test is **positive**, further tests are done to confirm a diagnosis of TB disease:

- Medical examination
- Chest x-ray

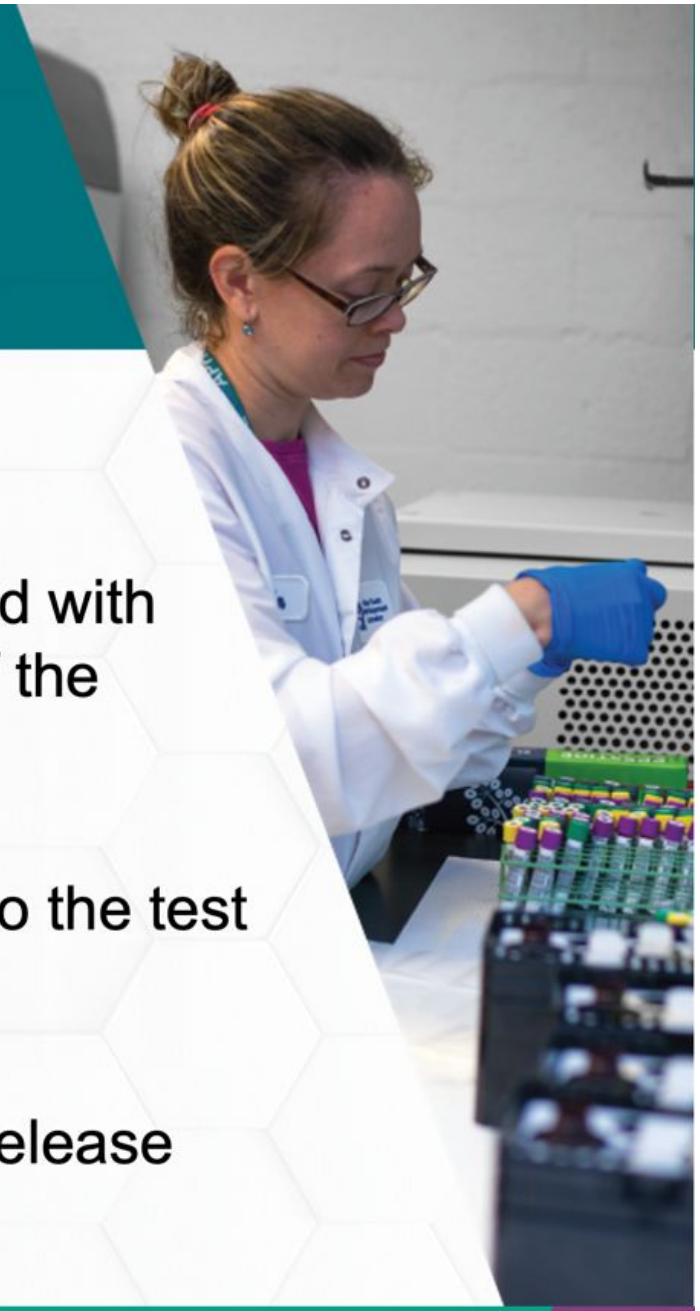
TB Blood Test

Blood is drawn and sent to a lab for analysis.

Positive blood test: A person *likely* has been infected with TB germs. Additional tests are needed to determine if the person has inactive TB or TB disease.

Negative blood test: A person's blood did not react to the test and inactive TB, or TB disease is not likely.

The TB blood test is also known as an Interferon-Gamma Release Assay (IGRA).



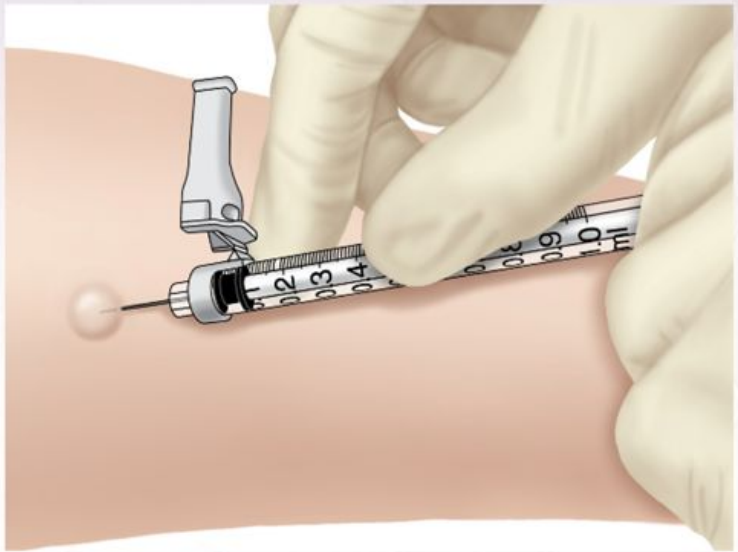
TB Blood Tests Are Preferred for People Who Have Received the TB Vaccine (BCG)

- The TB vaccine (BCG) may cause a positive TB skin test
- The TB vaccine does not affect TB blood tests results
- TB blood tests give more accurate results in people who have received the TB vaccine
- Anyone who has received the TB vaccine should receive a TB blood test instead of a TB skin test

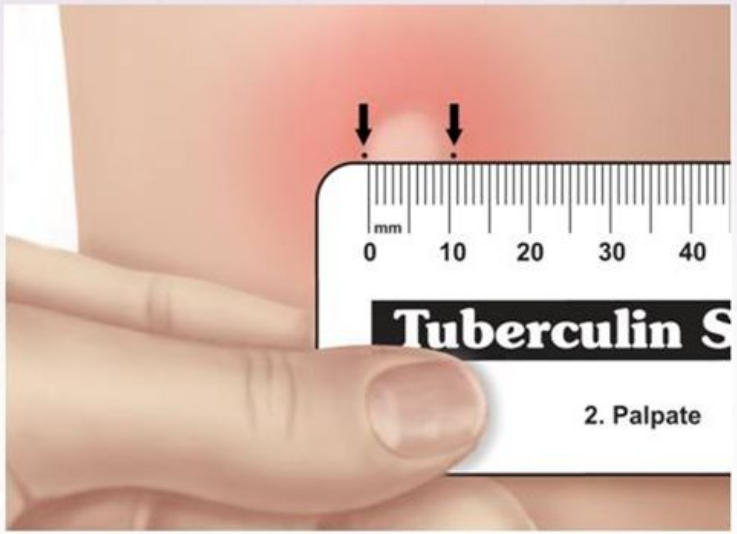
TB Skin Test

The TB skin test, also called the Mantoux tuberculin skin test (TST), requires two visits with a health care provider

On the **first visit,** a test is **placed**



On the **second visit,** the test is **read**



How is Hepatitis B Treated?

There are also approved drugs for both adults and children that control the hepatitis B virus, which helps reduce the risk of developing more serious liver disease, but there is still no complete cure.

Current treatments for hepatitis B fall into two general categories:

- **Immune modulator Drugs** – These are interferon-type drugs that boost the immune system to help get rid of the hepatitis B virus. They are given as a shot (similar to how insulin is given to people with diabetes) over 6 months to 1 year.
- **Antiviral Drugs** – These are drugs that stop or slow down the hepatitis B virus from reproducing, which reduces the inflammation and damage of your liver. These are taken as a pill once a day for at least 1 year and usually longer.

It is important to know that not everyone with chronic hepatitis B infection needs to be treated. This can be difficult to accept when first diagnosed because taking a drug to get rid of the virus seems like the first step to getting better. Current treatments, however, are generally found to be most effective in those who show signs of active liver disease (e.g. through a physical exam, blood tests and imaging studies such as an ultrasound).

Treatment for Inactive TB

Compared to treatment for TB disease, inactive TB treatment

- Is shorter
- Is less costly
- Has fewer side effects

Treatment for Inactive TB Can Prevent the Development of TB Disease

- People with inactive TB will not feel sick
  - As long as TB germs remain in the body, they can become active, multiply, and make someone sick with TB disease
- People with inactive TB
  - Should take medicine to prevent the development of TB disease, even though they don't feel sick

Treating TB Disease Protects Your Health and the Health of Others

- People with TB disease can pass TB germs to their family, friends, and others around them if they don't take TB medicine the right way
- People with TB disease need to take several medicines when they start treatment
- After taking TB medicine for several weeks, a doctor will be able to tell TB patients when they are no longer able to spread TB germs to others
  - Most people take TB medicine for at least 4 months to be cured

People Vaccinated with BCG Can Still Get TB Disease

Bacille Calmette-Guérin (BCG)

- Is a vaccine for TB disease
- The TB vaccine is not widely used in the United States
- Is often given to infants and small children in countries where TB is more common
- Protects against severe forms of active TB in children
- Protection from TB goes away as people get older

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Directly Observed Therapy (DOT)

- Is the most effective strategy for ensuring that patients stay on track with their treatment
- A health care worker will meet with the patient to watch them swallow each dose of the prescribed drugs
- During DOT visits, the health care worker will check in with the patient to:
  - answer questions
  - make sure the treatment is working
  - watch for side effects

Together We Can Work Toward TB Elimination in the United States

1. Strengthen current TB programs to diagnose and treat TB disease.
2. Increase efforts to identify and treat inactive TB infection.

Health Care Providers and Communities Need to "Think TB!"

Protect the health and well-being of community members at higher risk for TB:

- Know who is most at risk for TB
- Recognize the signs and symptoms of TB
- Test and treat patients who are at high risk for TB
- Be aware of latest TB research and shortest treatment options
- Encourage conversations about TB and how it affects the community to reduce stigma

Key Partners in TB Elimination

- Health care workers in doctors' offices and hospitals, community health centers, and academic institutions
- State and local health departments
- Community organizations
- Communities at higher risk for TB
- TB survivors

NTCA
National Tuberculosis Coalition of America

Stop TB USA

TB ELIMINATION ALLIANCE

we are TB

Think. Test. Treat TB

- CDC's **Think. Test. Treat TB** campaign aims to reach those most at risk for inactive TB infection and their health care providers to encourage TB testing and get closer to the elimination of TB
- **Think. Test. Treat TB** is the first national multilingual communications campaign to increase testing for inactive TB infection, a major health disparity among Asian Americans

Resources

CDC TB website:
www.cdc.gov/tb/

State & Local TB Control Offices:
https://www.cdc.gov/tb/php/tb-programs/index.html

Find TB Resources:
https://findtbresources.cdc.gov

TB Centers of Excellence:
https://www.cdc.gov/tb-programs/php/about/tb-coe.html

Facebook:
www.facebook.com/CDCTB/

X (formerly Twitter):
www.twitter.com/cdc_tb

Questions?


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