State Of Tuberculosis Elimination in the United States, 2017

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National TB Conference
April 19, 2017
Outline

- DTBE Budget
- State of TB Elimination in the United States
  - 2016 Preliminary Surveillance Data
- Importance of Addressing Latent Tuberculosis Infection (LTBI) for TB Elimination
- Introduction of Massachusetts Project
DTBE Budget

- Continuing resolution (CR) through April 28
  - Maintains funding at current level for duration of CR
- Awaiting remainder of FY2017 budget
- FY2018 administration budget proposal includes a 17.9% reduction in overall Department of Health and Human Services funding
  - Did not provide specific information on domestic TB appropriation
State of TB Elimination in the United States: 2016 Provisional Surveillance Data
Reported Tuberculosis (TB) Cases
United States, 1982–2016*

*Provisional data, as of February 17, 2017.

26,673 TB cases in 1992

9,287 TB cases in 2016

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

*Provisional data, as of February 17, 2017.

<table>
<thead>
<tr>
<th>Year</th>
<th>No.</th>
<th>Rate*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>10,510</td>
<td>3.4</td>
</tr>
<tr>
<td>2012</td>
<td>9,941</td>
<td>3.2</td>
</tr>
<tr>
<td>2013</td>
<td>9,549</td>
<td>3.0</td>
</tr>
<tr>
<td>2014</td>
<td>9,403</td>
<td>3.0</td>
</tr>
<tr>
<td>2015</td>
<td>9,546</td>
<td>3.0</td>
</tr>
<tr>
<td>2016</td>
<td>9,287</td>
<td>2.9</td>
</tr>
</tbody>
</table>

* Cases per 100,000 population; provisional data as of February 17, 2017.
TB Cases Among Foreign-Born Persons, United States, 1993–2016*

*Provisional data, as of February 17, 2017.
Challenges to TB Elimination

- Loss of expertise and experience
  - Clinical, laboratory, program

- *Drug and biologic shortages because of lack of market*
  - Regulatory requirements limit access to Global Drug Facility or other mechanisms that can access larger global market

- Concentration of remaining cases and outbreaks in more difficult-to-reach populations
  - Foreign-born, homeless, etc.

- *How to address the large pool of persons with LTBI*
  - <10 thousand TB cases; millions of persons with LTBI
Drug Shortages Threaten Treatment

- Drug shortages in the United States have affected the availability of second-line drugs for treatment of TB
- CDC has developed a small stockpile of TB drugs to mitigate shortages
  - Not a panacea

81% of TB programs experienced drug shortages
Importance of LTBI
TB Case Counts Among Foreign-born Persons by Time Since Arrival, 1993–2016

*Provisional data, as of February 17, 2017.*
Updated Estimate of Recent TB Transmission


- Used a field-validated plausible source-case method to estimate cases likely resulting from recent transmission during January 2011–September 2014

- Of 26,586 genotyped cases, 14% were attributable to recent transmission

- Remaining 86% likely result from reactivation of LTBI
Harvard Projections to 2050 by Intervention

Intervention scenarios 2015-2050

- Base-case
- TLTBI for new immigrants

- Improved TLTBI in US
- Better case detection

- Better TB treatment
- All improvements
Up to 13 Million People in the United States Have Latent TB Infection

ELIMINATING TB REQUIRES A COMPREHENSIVE APPROACH.

CDC is committed to fighting TB whenever & wherever it occurs through:

- Vigilant Surveillance
- Better Diagnostics & Treatments
- Testing & Treatment of High-Risk Populations
- Education of Health Care Providers
Opportunities to Better Address LTBI

- Blood tests that have advantages in key populations (e.g., BCG vaccinated)
- Short-course treatment regimens with higher completion rates
- Recommendation by US Preventive Services Task Force (USPSTF)
# Recommendation by USPSTF

<table>
<thead>
<tr>
<th>Population</th>
<th>Recommendation</th>
<th>Grade (What's This?)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults who are at increased risk for tuberculosis</td>
<td>The USPSTF recommends screening for latent tuberculosis infection (LTBI) in populations that are at increased risk.</td>
<td>B</td>
</tr>
</tbody>
</table>

**B**

The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.

Offer or provide this service.
Pilot Project for Expanding LTBI Testing and Treatment

- Demonstrate a feasible, scalable program to expand LTBI testing and treatment within a defined high-risk community
- Intensified efforts to locate and treat high-risk persons with LTBI, independent of contact investigation or exposure to infectious TB
- Prevent future TB cases through targeted testing and treatment
- Comprehensive evaluation of activities with focus on sustainability and program improvement
- One site (based on available funding) – Massachusetts – received funding for 2017
Caveats

- LTBI testing and treatment expansion cannot come at the expense of maintaining high-quality diagnosis and management of patients with TB disease and infection control
  - Major limitation in context of level or potentially decreasing resources
  - Look for efficiencies
    - eDOT
  - Leverage other resources
    - More primary care provider engagement
    - Incremental rather than transformational progress
- Cannot ignore 14% of cases resulting from recent transmission
  - Need effective contact investigations and outbreak response
Thank You

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.