TB Case Registry Activities:
Counting Cases

An Overview by: Maria G. Rodriguez
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What Will be Covered:

- What is TB; Other names for TB
- Some Significant Dates
- Pre-Requisites
- Five components to Quality Assurance
- What is an RVCT
- What is Surveillance; Case Registry Activities
- Life cycle of a TB Surveillance Record
- Time Lines
- Suspect Case Criteria
- Symptoms of TB
- Published Case Definition
- Clinical Case by Provider Diagnosis
- Count status
- Everyone has a role
What is TB?

• “TB” is short for a disease called tuberculosis

• It is spread through the air from one person to another

• TB germs are passed through the air when someone who is sick with TB disease of the lungs or throat coughs, speaks, laughs, sings, or sneezes

• Anyone near the sick person with TB disease can breathe TB germs into their lungs

• TB is an infectious reportable disease condition.
Other Names for TB

- Consumption
- Wasting Disease
- White Plague
- Phthisis
- Scrofula
- King’s Evil

- Pott’s Disease
- Miliary TB
- Tabes Mesenterica
- Lupus Vulgaris
- Prosector’s Wart
- Koch’s Disease
In 1865, a French surgeon, Jean-Antoine Villemin, proved that TB was contagious.

On March 24, 1882, Dr. Robert Koch, who was a German scientist, discovered the bacteria that causes TB.

In 1943, an American scientist, Selman Waksman, discovered a drug that could kill TB bacteria.

In 1953, Nation-wide reporting first began.

March 24, 1982, was the first World TB Day.
In 1983, Texas started reporting via the TB-Management Information System (TB-MIS).

In 1993, TB-MIS was replaced by the TB Information Management System (TIMS).

In 2009, TIMS was replaced by the web-based application TB-Program Area Module (TB-PAM).
# Pre-Requisites

## Training

- Core Curriculum on Tuberculosis, Sixth Edition 2013
- Diagnostic Standards/Classification of TB in Adults and Children; AM J Respir Crit Care Med 2000; 161
- Guidelines for the Investigation of Contacts of Persons with Infectious Disease; MMWR 2005, 54 (No RR-15, 1-37)
- RVCT Instructions Manual and A Guide and Toolkit for QA for TB Surveillance Data
- Orientation, Annual Workshop and Monthly Conference Calls, TBNN Workgroup, Brown Bag Learning Series, What is TB Webinar and How it Relates to the RVCT (in development)

## System Access

- Security Training
- PHIN – Public Health Information Network
- TB PAM – TB Program Area Module
- PHLIMS/Labware – Public Health Laboratory Information Management System
- NTIP – National TB Indicators Project System
- NTSS – National Telecommunications Surveillance System
- TB GIMS – TB Genotyping Information Management System
- EDN - Electronic Disease Notification System
Five Components to Quality Assurance

- Case Detection
- Data Accuracy
- Data Completion
- Data Timelines
- Data Security and Confidentiality
What is an RVCT

- “Report of Verified Case of TB”
- National TB surveillance form, required to be used by all 52 reporting jurisdictions in the U.S. for reporting purposes to the CDC and to share information with other states
- Used to Monitor trends and priorities
- Data is used to match with TB GIMS (genotyping reporting system)
- Can also be used for reporting suspects and LTBI’s
- Used for publication in the Morbidity and Mortality Weekly Report (MMWR) and World Health Organization (WHO)
Case Registry Activities:
- Process and manage data for Cases, Suspects, contacts, other LTBI’s and referrals, including address verification
- Ensure case criteria is met
- Collect missing information
- Interpret data and complete RVCT
- Investigate unreported lab confirmed cases
- Keep track of CI’s for sputum smear positive suspects and cases
- Interact with other programs
- Provide training on case registry activities and reporting
- Maintain Records Inventory

What is Surveillance
- Passive
- Active
- Sentinel
Surveillance is essential to TB control.
<table>
<thead>
<tr>
<th>CDC Timeline</th>
<th>Surveillance Data</th>
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<tbody>
<tr>
<td>February 6, 2015</td>
<td>All counted cases for 2014 that includes minimum information required</td>
</tr>
<tr>
<td></td>
<td>At least three contacts identified for sputum smear positive cases</td>
</tr>
<tr>
<td>March 13, 2015</td>
<td>All RVCT and F/U 1 missing info for 2014 cases</td>
</tr>
<tr>
<td></td>
<td>All F/U 2 missing info for 2013 cases</td>
</tr>
<tr>
<td>March 31, 2015</td>
<td>All Suspects reported in 2014 started on meds and closed “Not TB”</td>
</tr>
<tr>
<td>April 1, 2015</td>
<td>Genotype Accession Numbers</td>
</tr>
<tr>
<td>August 15, 2015</td>
<td>All identified contacts that were evaluated for 2014 Cases</td>
</tr>
<tr>
<td></td>
<td>All Dispositions for contacts to 2013 Cases</td>
</tr>
<tr>
<td>February 2016</td>
<td>Repeat Cycle by adding another year</td>
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### Life Cycle of a TB Surveillance Record (2 years)

- Suspected Case
- DX Class 3
- Contacts placed on preventive therapy
- COT for Case
- COT for Contacts
- Rx extended > 1 year
- Follow up by CXR
Suspect Case Criteria

One of these:

- +AFB smear from any anatomic site
- Rapid Lab test
- Biopsy, pathology or autopsy findings consistent with active TB

Or at least two of these:

- + TST or IGRA
- Radiographic findings consistent with active TB
- Productive cough > 3 weeks
- Other signs or symptoms of TB disease
- Initiation of treatment for TB
Symptoms of TB

Pulmonary
- Productive, prolonged cough
- Chest Pain
- Hemoptysis
- Shortness of breath (dyspnea)

Systemic
- Fever
- Chills
- Night Sweats
- Easy Fatigability
- Malaise
- Loss of appetite
- Weight loss
- Anorexia
- Weakness

Extra Pulmonary
- Laryngeal – hoarseness, pleural effusion
- Spine – back pain
- Eye – eye pain, blurry vision
- Kidney – blood in the urine
- Stomach – stomach tenderness, pain
- Meningeal – headache, stiff neck
- Lymph Node – swelling, enlargement of lymph nodes
- Pleural – pleural effusion
- Genitourinary – blood in urine, frequent urination, flank pain
- Bone or Joint – pain in bones or joints, pain in muscles
# Case Criteria for Published Case Definition

## Lab Confirmed
- Positive (+) smear when culture not done
- Positive (+) culture
- Positive (+) NAAT

## Clinical
- Positive (+) skin test or IGRA (T-Spot or QFT)
- Abnormal chest x-ray consistent with TB disease
Case Criteria for Clinical Case by Provider Diagnosis

- Negative TST or not done; considerable worsening or improvement on chest x-ray
- Considerable clinical improvement based on symptoms from onset after started on at least 2 anti-TB meds
- Child recent contact to an active case
- Autopsy report
- TB expert consult
# Count Status

<table>
<thead>
<tr>
<th>Countable</th>
<th>Not Countable</th>
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</thead>
<tbody>
<tr>
<td>• Patient is a resident of Texas or is employed in Texas at time of diagnosis</td>
<td>• Recent arrival not in Texas for 90 days</td>
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<tr>
<td>• If recent arrival to the U.S., must be in the states at least 90 days</td>
<td>• Transferred from another jurisdiction in the U.S.</td>
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<tr>
<td>• Has been residing in Texas for years but routinely goes to Mexico to see a doctor and gets diagnosed with TB</td>
<td>• Is an undocumented resident already suspected or diagnosed in another country</td>
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</table>
Recap:

- Verify case; ensure case criteria is met
- Verify address; a case is counted in their county of residence when they were suspected or diagnosed with active TB disease, regardless of where the patient was diagnosed
- Collect Missing Data
- Interpret data and complete RVCT
- Keep record active until all data is complete and record status is closed; window period of 1 year, for difficult cases, 2 years.
Audience Participation

Group Activity
Counting Cases
TEAM

Together

Each

Achieves

More!

Everyone has a role!

Case Registry Team

Laboratories, Hospitals, Correctional and Long Term care facilities, other jurisdictions, PMD’s

Nurses, Clinicians, DOT Workers, Intake, CI’s, Epi’s, clerks, etc.
Thank you, on behalf of Rebecca Filipowicz, Branch Manager for TB/HIV/STD Epi & Surveillance and our TB Surveillance Team!

Maria G. Rodriguez, TB Surveillance Team Supervisor
Team Members:
- Shawna Tilley, Senior Case Consultant
- Lauren Rosenbluth, Case Consultant
- Jennifer Luna, suspects and Binationalists
- Sima Vafaee (Contacts)
- Barbara Scaife (QA)
- Justin Irving, Data and Reporting Manager and Miranda Leathers Fanning, Group Manager for TB/HIV/STD Epi and Surveillance