The Role of State Public Health: Tuberculosis

Stop TB Partnership, stoptb.org

Carla Chee, MHS
ADHS
October 17, 2012
Reporting

Active TB (regardless of site of disease)

LTBI in children (<6 years of age)

TB 101 for Health Care Workers, CDC, WebCourse.
Surveillance

• Report of Verified Case of Tuberculosis (RVCT)
  – Revised 2009
  – Monitor trends, identify priority needs
  – Essential to efficient and effective TB program management
# Impact of RVCT Data

<table>
<thead>
<tr>
<th>Benefits of RVCT Data</th>
<th>Consequences of Inaccurate, Incomplete, or Unknown RVCT Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased ability to assess program performance, completeness of reporting, and accuracy of reporting</td>
<td>Inaccurate follow-up of services to patients</td>
</tr>
<tr>
<td>Improved data for program planning and policy development</td>
<td>Inadequate resource allocation</td>
</tr>
<tr>
<td>Facilitation of patient services</td>
<td>Inaccurate evaluation and policy development</td>
</tr>
<tr>
<td></td>
<td>Misrepresentation of public health burden of TB</td>
</tr>
<tr>
<td></td>
<td>Inability to measure TB program indicators</td>
</tr>
</tbody>
</table>
### Risk Factors for TB Cases, Arizona, 2011

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>#Cases</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correctional Facility Cases</td>
<td>64</td>
<td>26.4</td>
</tr>
<tr>
<td>Excess Alcohol</td>
<td>33</td>
<td>13.6</td>
</tr>
<tr>
<td>Diabetes Mellitus</td>
<td>31</td>
<td>12.1</td>
</tr>
<tr>
<td>Non-injecting Drug Use</td>
<td>25</td>
<td>10.3</td>
</tr>
<tr>
<td>Homeless</td>
<td>15</td>
<td>5.9</td>
</tr>
<tr>
<td>Contact of Infectious TB Case (&lt;2 years)</td>
<td>15</td>
<td>5.9</td>
</tr>
<tr>
<td>HIV Positive</td>
<td>11</td>
<td>4.7</td>
</tr>
<tr>
<td>Health Care Workers</td>
<td>10</td>
<td>3.9</td>
</tr>
<tr>
<td>Injecting Drug Use</td>
<td>8</td>
<td>3.3</td>
</tr>
<tr>
<td>Long-term Care Facility</td>
<td>8</td>
<td>3.3</td>
</tr>
</tbody>
</table>
CDC Slide Sets

Role of Local Health Department: TB Contact Investigations (CIs)

• Health department conducts all local CIs

OR

• Ensure CIs conducted by other organizations/facility are done according to CDC guidelines
Contact Investigations

• On average, 10 contacts are identified for each person with infectious TB in the U.S

• 20%–30% of all contacts have LTBI

• 1% of contacts have TB disease

• Of contacts who will ultimately have TB disease, approximately one-half develop disease in the first year after exposure
Goals for Contact Investigations

- Interrupt further transmission
  - Identify additional cases
  - Identify LTBI

- Identify settings with high risk and apply effective infection control measures
When to Begin a CI

• NOT ALL ACTIVE TB CASES REQUIRE A CI
• Must decide which cases to investigate
• Decision depends on several factors which indicate likelihood of transmission
• Once begun, assign CIs a high priority
Decision to Initiate Investigation

*Acid-fast bacilli
†Nucleic acid assay
§Approved indication for NAA
¶Chest radiograph
Factors for Assigning Contact Priorities

- Characteristics of the index patient

- Characteristics of contacts
  - Age
  - Immune status
  - Other medical conditions

- Exposure or likelihood of infection
Which Contacts Should be Given High Priority for TB Assessment?

• Are exhibiting TB symptoms

• Are at risk for developing TB disease if infected with \textit{M. tuberculosis}
  – Less than 5 years of age
  – Weakened immune system (e.g., HIV)

• Had the \textit{most exposure} (as defined by that investigation)
When Should We Expand an Investigation?

• Unexpected large positivity rate
  – >10% community rate

• Evidence of secondary transmission

• Program objectives achieved

Expand to low priority contacts
8-10 weeks after last exposure.
About the MMWR for Contact Investigation

- MMWR on December 16, 2005
- QuantiFERON® -TB Gold Test guidelines in same issue
CDC TB Website

- www.cdc.gov/tb/
Welcome to the TB 101

This course is designed to educate health care workers about basic TB concepts related to TB prevention and control in the United States.

To view a brief overview of the course, including course objectives and continuing education information, please see additional course information.

To begin a lesson, click on one of the lesson topics on the right or click the "NEXT" button. It is recommended that you complete lessons in numerical order.

Acknowledgments
This course was developed in partnership with:

- Curry International Tuberculosis Center
  www.currycenter.ucsf.edu
- Heartland National Tuberculosis Center
  www.heartlandtbc.org
- New Jersey Medical School Global Tuberculosis Institute
  www.umdnj.edu/globally/home.htm
- Southeastern National Tuberculosis Center
  http://info.medicine.ufl.edu

Lessons 1-3

Lesson 1: Introduction

Lesson 2: TB Transmission and the Development of TB Disease

Lesson 3: Testing for TB Infection

Lessons 4-6

Lesson 4: Diagnosis of TB Disease

Lesson 5: Treatment of Latent TB Infection

Lesson 6: Treatment of TB Disease
ADHS TB Control Program
602-364-4750
602-364-3267 fax