TUBERCULOSIS CONTACT INVESTIGATION

LEARNING OBJECTIVES

Upon completion of this session, participants will be able to:

1. Describe the criteria used and method for determining an infectious period (IP) for TB
2. Describe the characteristics of the TB patient, contact, and exposure that should be assessed in order to prioritize contacts
3. Name and apply the essential steps and timelines in a contact investigation (CI)
4. List three criteria used to determine when to expand the scope of a CI

INDEX OF MATERIALS

1. Tuberculosis contact investigation – slide outline
   Presented by: Diana Fortune, RN, BSN and Virginia Dowell, RN, BSN

SUPPLEMENTAL MATERIAL

None

REFERENCES


ADDITIONAL RESOURCES

- Southeastern National Tuberculosis Center. Corrections Toolkit. Available at: http://sntc.medicine.ufl.edu/CorrectionsToolkit.aspx#_JCoRIU
Learning Objectives

Upon completion participants will be able to:

▪ Describe the criteria used and method for determining the infectious period (IP) for TB
▪ Describe the characteristics of:
  ○ the TB patient,
  ○ the contact,
  ○ & exposure that should be assessed in order to prioritize contacts
▪ Name and apply the essential steps and timelines in a contact investigation (CI)
▪ List 3 criteria used to determine when to expand the scope of a CI
Background

CDC National Guidelines for the Investigation of Contacts of Persons with Infectious TB (2005)

- Provide a standard framework
- Describe how to use findings to:
  - Assess for evidence of transmission
  - When/if to expand the investigation

Why do a TB contact investigations?
TB Program Priority Strategies

1. Prompt detection, reporting and treatment of persons with **active TB**

2. Identification and **evaluation of contacts** of persons with infectious TB

3. Targeted testing and treatment of persons with **TB infection** in collaboration with community health care providers.

4. Strengthening **infection control** measures in settings at high risk for TB transmission

Why TB Contact Investigation?

Find persons with **active TB disease**: treat and prevent ongoing transmission

Find persons with **TB infection**: treat and prevent future cases
Contact Investigation (CI) Performance Targets and Average 5-Year Outcomes
United States, 2009-2013

<table>
<thead>
<tr>
<th>National Performance Targets for 2020</th>
<th>Performance Outcomes (range 2009-2013)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contacts are identified for 100% of sputum AFB smear-positive TB patients</td>
<td>United States</td>
</tr>
<tr>
<td>93% of contacts are evaluated</td>
<td>94% (94-95%)</td>
</tr>
<tr>
<td>91% of contacts to sputum AFB smear(+) patients with newly diagnosed LTBI will start treatment</td>
<td>81% (78-83%)</td>
</tr>
<tr>
<td>81% of contacts who start LTBI treatment will complete treatment</td>
<td>70% (68-72%)</td>
</tr>
<tr>
<td>71% (66-71%)</td>
<td></td>
</tr>
</tbody>
</table>

Definitions

▪ **Case** - a particular instance of disease (e.g., TB). A case is detected, documented, and reported

▪ **Index case** - the first case or patient that comes to attention as an indicator of a potential public health problem

▪ **Source case** - the case or person who was the original source of infection for secondary cases or contacts
  o (may not be the index case)

▪ **Infectious** - refers either to TB disease of the lung or throat which has the potential to cause transmission to other persons, **OR** to the patient who has TB disease

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Definitions (2)

▪ **Contact** - person exposed to *M. tuberculosis* by sharing air space with a person with infectious TB

▪ **Converter** - a change in the result of a test for *M. tuberculosis* infection that is interpreted to indicate a change from uninfected to infected
Definitions (3)

- **Infectious period** - the time during which a person with TB disease might have transmitted *M. tb* organisms to others
- **Exposure period** - the period when a contact shared the same air space as a person with TB during the infectious period
- **Window period** - the interval between infection and detectable reactivity

TB Contact Investigation Steps

1. Confirm the diagnosis - collect information
   - Decide whether to initiate a CI (Contact Investigation)
2. Interview the Index Case
3. Determine the Infectious Period
4. Examine sites of transmission i.e. site visits
5. **Prioritize** Contacts
   - High and low priority contacts
6. Locate and Evaluate Contacts
7. Treat and follow up contacts
8. Evaluate Contact Investigation activities
Step 1

Confirm the Diagnosis:

Collect and Evaluate Index Case Information:
Decide Whether to Initiate a CI

What information is collected?

- Background information regarding the patient and circumstances of the illness
  - Demographics, identifiers, locating information
  - Site of disease, TB regimen, and start date(s)
  - History of previous TB exposure
  - History of previous TB disease and treatment
  - TB symptoms and the onset date(s)
  - Results of diagnostic tests
  - Concurrent medical conditions, diagnoses, or important social factors
### Assessing Transmission Risk

<table>
<thead>
<tr>
<th>TB CASE FACTORS</th>
<th>LIKELIHOOD OF DISEASE TRANSMISSION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MORE LIKELY</strong></td>
<td><strong>LOWER LIKELIHOOD</strong></td>
</tr>
<tr>
<td>Site of TB Disease</td>
<td>Laryngeal / pulmonary or pleural</td>
</tr>
<tr>
<td>Smear status</td>
<td>Positive</td>
</tr>
<tr>
<td>Chest X-ray</td>
<td>Cavitation</td>
</tr>
<tr>
<td>Symptoms/behaviors</td>
<td>Coughing, singing, sneezing</td>
</tr>
<tr>
<td>Age</td>
<td>Adult or adolescent</td>
</tr>
<tr>
<td>Started treatment ie TB meds</td>
<td>No ineffective Regimen</td>
</tr>
</tbody>
</table>

**TB Record ..... NM Style**
Tuberculosis Contact Investigation
Virginia Dowell, RN, BSN and Diana Fortune, RN, BSN
New Mexico Department of Health

Decision Tree: Initiating a TB Contact Investigation

Exercise #1:
Deciding Whether to Initiate a CI
Contact Investigation Case Scenario

October 4, 2017: Analyn, a 24-year-old woman from the Philippines, presented to the county hospital outpatient department

**Symptoms:** fatigue, productive cough, weight loss, & fever

**Chest x-ray:** right upper lobe fibronodular densities and a left upper lobe infiltrate; Red Flags of CXR

**Sputum:** Collect sputum specimens; PCR/NAAT & culture

**Plan:** Do IGRA/TST; place in Airborne Isolation......admit to hospital and/or other options for isolation;

October 5, 2017: lab reports +AFB smear; Health Department notified

October 6, 2017: started on isoniazid, rifampin, ethambutol and pyrazinamide; **TST = 16mm**

Q2. Criteria used to make decision to initiate a CI:

- Sputum AFB smear
- TB symptoms (persistent cough, fever, weight loss)
- Abnormal CXR – consistent with active tuberculosis
- Other risk factors – from the Philippines, a country where TB is prevalent
Step 2

Interview the Index Case

Index Case TB Interview Goals

1. Patient understands transmission and treatment of TB
2. Problems/concerns identified and addressed
3. Infectious period (IP) determined
4. Areas of potential transmission identified
5. Contacts identified, prioritized, and locating information obtained
6. Contact investigation priorities established
Interview Timeframes

Conduct a minimum of 2 interviews

- 1st interview
  - \( \leq 1 \) business day of reporting for infectious patients
  - \( \leq 3 \) business days for others
- 2nd interview
  - 1-2 weeks later
- May need additional interviews

Use a trained interpreter when indicated

Step 3

Determine the Infectious Period
What is the Infectious Period?

Time during which a TB case is likely to transmit *M. tuberculosis*

Importance of Estimating the Infectious Period (IP)

- Focuses the investigation on contacts most likely to be at risk of infection
  - Who are these individuals?
- Sets the timeframe for testing contacts
  - (e.g., when repeat TST or IGRA is due)
- **NOTE:**
  - Current methods only estimate the Infectious Period
  - Certain circumstances might warrant extending the onset or end of the IP beyond the recommended guidelines
### Estimating Onset of Infectious Period

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>TB symptoms</th>
<th>AFB sputum smear positive</th>
<th>Cavitary chest radiograph</th>
<th>Recommended minimum beginning of likely period of infectiousness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, No, No</td>
<td>Yes, No, No</td>
<td>Yes, Yes, Yes</td>
<td>Yes, No, No</td>
<td>3 months before symptom onset or 1st positive findings consistent with TB disease, whichever is longer</td>
</tr>
<tr>
<td>No, Yes, Yes</td>
<td>No, Yes, Yes</td>
<td>Yes, Yes, Yes</td>
<td>Yes, No, No</td>
<td>3 months before 1st positive finding consistent with TB disease</td>
</tr>
<tr>
<td>No, No, No</td>
<td>No, No, No</td>
<td>No, No, No</td>
<td>No, No, No</td>
<td>4 weeks before date of suspected diagnosis</td>
</tr>
</tbody>
</table>

**Handout 1.2**

**TABLE 2.** Guidelines for estimating the beginning of the period of infectiousness of persons with tuberculosis (TB), by index case characteristic. Guidelines for the Investigation of Contacts of Persons with Infectious Tuberculosis. Recommendations from the National Tuberculosis Controllers Association and CDC. 2005.
### Closing the Infectious Period

- The infectious period (IP) is **closed** when further transmission of tuberculosis is unlikely

- **General criteria** for closing IP include:
  - Effective treatment for \( \geq 2 \) weeks
  - Diminished symptoms
  - Mycobacteriologic response
  - **Congregate settings:** Should have three consecutive negative sputum smears collected at least 8 hours apart to release from isolation/close infectious period

### Who is considered a “contact”?

- Must have **shared same airspace** as the index case during the infectious period

- Important to determine for each contact (or group of contacts):
  - When did exposure occur (in relation to index case diagnosis)?
  - How frequent and what duration was the exposure?
  - What was the date of last exposure?
Exercise #2:

Determining the Infectious Period

CI Case Scenario (continued)

- You arrange to interview Analyn at the hospital the following day but were unable to secure an interpreter to accompany you.
- During the initial interview, Analyn verifies that she had been having symptoms consistent with TB for about a month prior to her admission to the hospital.
- She has stayed in three different houses in the area with various relatives since she arrived from the Philippines in August 2016.
- She had trouble finding work initially due to her limited English skills, so she has been helping out with childcare for the young children in two of these households, as well as for another neighbor.
CI Case Scenario (continued)

- In addition, the week prior to her diagnosis, Analyn had just started a job-training program to learn cosmetology.
- Analyn is very emotional during the CI interview
  - She is shocked that she has TB and expresses feelings of guilt and shame.
  - She is afraid that once her relatives learn about her TB situation they will disown her and ask her to leave.
  - She is worried she will have no place to live and that she will die soon.
- Analyn is also very worried about her financial situation.
- The interview is cut short with the arrival of Analyn’s physician.

Determining Analyn’s Infectious Period

Q3: What information in this case scenario can you use to help you estimate the onset of Analyn’s infectious period?

Q4: Using the table (and calendar) in handout 1.2, calculate the onset date of Analyn’s infectious period.
**Determining Onset of Analyn’s Infectious Period**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>TB symptoms</th>
<th>AFB sputum smear positive</th>
<th>Cavitary chest radiograph</th>
<th>Recommended minimum beginning of likely period of infectiousness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Infectious period start = June 4, 2017.

- Admitted to hospital October 4
- Symptoms began 1 month prior September 4
- Infectious Period began = June 4 (3 months prior to symptom onset)

**Determining End of Analyn’s Infectious Period**

Q5: What information will you use to help you determine the end of Analyn’s infectious period?
Determining End of Analyn’s Infectious Period (2)

- Consider:
  1. TB treatment start date - at least 14 daily doses of effective treatment (by DOT)
  2. Bacteriology results - smear conversion
  3. Evidence of clinical improvement - diminished symptoms (e.g., decreased frequency of cough, resolution of fever, etc.)

Step 4

Examine Sites of Transmission (Field Investigation)
Examine Sites of Transmission (Field Investigation)

- Visit the sites where the patient spent time during infectious period

- Components include:
  - Assess physical conditions of the setting
  - Interview, arrange for evaluation and provide TB information to contacts
  - Identify additional contacts

Assessing the Environment

<table>
<thead>
<tr>
<th>ENVIRONMENTAL FACTOR</th>
<th>LIKELIHOOD OF DISEASE TRANSMISSION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HIGH</td>
</tr>
<tr>
<td>Volume of shared air space</td>
<td>Low (small)</td>
</tr>
<tr>
<td>Adequacy of ventilation</td>
<td>Poor</td>
</tr>
<tr>
<td>Re-circularized air</td>
<td>Yes</td>
</tr>
<tr>
<td>Upper room ultraviolet light</td>
<td>Not present</td>
</tr>
</tbody>
</table>
Step 5

Prioritize Contacts

Assign Priority Level to each Contact

- High Priority
  - 3-5 business days (from listing to initial encounter)

- Medium Priority
  - 14 business days

- Low Priority

- Non-contact
How to Prioritize Contacts

- Consider both:
  - Factors associated with transmission
  - Factors associated with increased risk for progression to TB disease (vulnerability)

High Priority Contacts

**High Priority Contacts** are:

1. Most likely to be infected (exposure)
2. Most likely to progress to disease if infected
3. Most likely to suffer increased morbidity or mortality from TB disease
When assigning priority, consider:

- Infectiousness of the TB case
- Circumstances of the exposure
  - Environment where transmission likely occurred
  - Frequency & duration of exposure
- Susceptibility/vulnerability factors of the contact
  - Age, immune suppressed, other medical risk factors
- Any contact with TB symptoms = High priority

Assessing Exposure Circumstances

- Determine when exposure occurred
  - TB case’s infectious period including date of last contact (contact break date)
    - Close to date of diagnosis?
    - Toward beginning of infectious period?

- Evaluate:
  - how often (frequency)
    - the TB case and contact shared air space and
  - how long (duration)
    - each exposure lasted (e.g., number of hours)
Vulnerable Contacts

Is the contact at high risk for rapid progression to active TB?
- Under five years of age?
- HIV infected?
- Other immune suppressed?

Children
- TB disease is more likely to occur once infected
- Incubation or latency period is briefer
- If <5 years of age, assign “high priority”
Risk of Progression from TB Infection to Disease by Age (Immunocompetent Children)

<table>
<thead>
<tr>
<th>Age at infection (y)</th>
<th>No disease (%)</th>
<th>Pulmonary TB (%)</th>
<th>CNS TB (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1</td>
<td>50</td>
<td>30-40</td>
<td>10-20</td>
</tr>
<tr>
<td>1-2</td>
<td>75-80</td>
<td>10-20</td>
<td>2.5</td>
</tr>
<tr>
<td>2-5</td>
<td>95</td>
<td>5</td>
<td>0.5</td>
</tr>
<tr>
<td>5-10</td>
<td>98</td>
<td>2</td>
<td>&lt;0.5</td>
</tr>
<tr>
<td>&gt;10</td>
<td>80-90</td>
<td>10-20</td>
<td>&lt;0.5</td>
</tr>
</tbody>
</table>

*Peds in Review 2010;31:13

Childhood TB Disease Sites

<table>
<thead>
<tr>
<th>Site*</th>
<th>% of cases</th>
<th>Median Age (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulmonary</td>
<td>77.5</td>
<td>6</td>
</tr>
<tr>
<td>Lymphatic</td>
<td>13.3</td>
<td>5</td>
</tr>
<tr>
<td>Pleural</td>
<td>3.1</td>
<td>16</td>
</tr>
<tr>
<td><strong>Meningeal</strong></td>
<td><strong>1.9</strong></td>
<td><strong>2</strong></td>
</tr>
<tr>
<td>Bone/joint</td>
<td>1.2</td>
<td>8</td>
</tr>
<tr>
<td><strong>Miliary</strong></td>
<td>0.9</td>
<td>1</td>
</tr>
<tr>
<td>GU</td>
<td>0.8</td>
<td>16</td>
</tr>
<tr>
<td>Peritoneal</td>
<td>0.3</td>
<td>13</td>
</tr>
</tbody>
</table>

*: United States (almost all are normal hosts)

Over 90% of children with TB meningitis will have an abnormal CXR!
Vulnerable Contacts

Immune Status - HIV Infection

“...results in the progression of *M. tuberculosis* infection to TB disease more frequently and more rapidly than any other known factor”


Vulnerable Contacts

Immune Status - Other

Immunosuppressive treatment that increases the likelihood of progression to TB disease after infection:

- Corticosteroids:
  - >15 mg daily for >4 weeks
- Cancer chemotherapy agents
- Organ transplant recipients
- Tumor necrosis factor alpha antagonists
Vulnerable Contacts

Medical conditions increased for progression to active TB

- Silicosis
- Diabetes mellitus
- End stage renal disease
- Status post gastrectomy or jejunoileal bypass surgery
- Low body weight

Prioritizing Contacts

- **Medium Priority**
  - Shorter exposure time
  - Less close contact
  - Lower risk
  - **Examples**: students in same classroom, co-worker in same suite, extended family that visit weekly

- **Low Priority**
  - Brief exposure
  - No real face-to-face contact
  - No vulnerability risk factors
Prioritizing Contacts - Guidelines

- CDC CI guidelines propose various algorithms to guide the priority classification process (handout 1.3)

Prioritizing Contacts

CDC CI guidelines propose various algorithms to guide the priority classification process (handout 1.3).

New Mexico Department of Health

TB Case Management and Contact Investigation Intensive
March 19-22, 2019

Prioritizing Contacts

CDC CI guidelines propose various algorithms to guide the priority classification process (handout 1.3).

New Mexico Department of Health

TB Case Management and Contact Investigation Intensive
March 19-22, 2019
Exercise #3:

Examine Site(s) of Transmission and Prioritize Contacts

Contact Investigation Case Scenario (continued)

- On follow-up interview with the interpreter, Analyn clarifies that she has been living with her 42 y/o Aunt Riza, her husband, and their 3 children (son age 16, and two daughters ages 9 and 6) since the end of June, 2017.

- Prior to Aunt Riza’s, she stayed with her cousin Areva. Areva has a daughter that just turned 2 and Analyn babysits for Areva as needed.

- When Analyn first came to the US, she lived at another aunt and uncle’s home in the neighboring health jurisdiction until March, 2017 when she moved to the city to help her cousin Areva who returned to work.
Contact Investigation
Case Scenario (continued)

▪ Analyn also babysat for her Aunt Riza’s neighbor who has two children (daughter age 4 and a 3-year-old son), but the last time she babysat was over a month ago.
▪ Analyn was hoping to become a certified beautician and began classes at the Cosmetology College one week before she was hospitalized.
▪ She attended classes M, W, and F from 3:00 - 4:30pm. She states she has not yet gotten to know her classmates and did not socialize with them.
▪ Analyn named 4 friends that she hangs out with some evenings and weekends but states she has not been out with them for several weeks now.

Identifying Potential Sites of Transmission and Prioritizing Contacts

Q6: List the sites of possible transmission.

Q7: Designate a priority level (high, medium, low, or no contact) for each individual or group listed.
Prioritizing Analyn’s Contacts
Q7: How would you prioritize Analyn’s contacts at this stage?

Who are the high-priority contacts?
Who are the medium and/or low-priority contacts?

Step 6

Locate and Evaluate Contacts
Locating Contacts

Consider:
- Social networks
  - Facebook
- Re-interviews
- Jail
- Shelters

Evaluation of Contacts

1. Medical and TB history
2. TB symptom evaluation
3. TST or IGRA; if initial test is negative, then repeat 8 - 10 weeks post contact

If symptomatic or positive TB test:
- Obtain chest X-ray and medical evaluation
- Consider sputum for AFB smear and culture if indicated
**Important information for Evaluating the TB Contact**

- Prior TB test history
  - Test if no documentation of testing

- Country of birth, year of arrival in US, and travel history

- Other medical conditions

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**Evaluation: Special Contact Groups**

- **Child < 5 y/o or immunocompromised:**
  - Medical history
  - Physical exam
  - Chest X-ray (PA & lateral views)
  - Tuberculin skin test

- **Documented prior positive TST or IGRA:**
  - Obtain medical and exposure history
  - Obtain prior treatment history
  - If treatment for TBI is indicated, obtain CXR prior to treatment initiation
Step 7

Treat and Follow Up Contacts

Treatment and Follow-up

- Prioritize contacts
  - most in need of treatment
- “Window-period” prophylaxis
  - IGRA/TST-negative high-risk contacts
  - during the period following last contact until the follow-up TST/IGRA
    - (8-10 weeks after last contact)
- MDR-TB exposure- seek expert consultation; follow-up 2 years post exposure
Exercise #4:

Locate, Evaluate, Treat, and Follow Up Contacts

Case Scenario Update

- Analyn’s culture is reported positive for *M. tuberculosis* complex on October 29th.
- The first round of skin testing among high- and medium-priority contacts is completed three weeks after Analyn’s initial interview.
- A few additional contacts were identified through the field investigation and initial testing process. It was difficult to locate a few of the Cosmetology College contacts.
- Initial contact evaluation results are as follows: *Refer to CI Worksheet*
Evaluation and Treatment of Analyn’s Contacts

Q8: What further evaluation is required for contacts in House #1?

Q9: Which contacts are your priorities for treating and why?

Contacts: evaluation completed

<table>
<thead>
<tr>
<th>Contacts</th>
<th>Additional evaluation required</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aunt Riza:</strong> Prior + TST; asymptomatic</td>
<td></td>
</tr>
<tr>
<td><strong>Husband:</strong> Prior + TST; asymptomatic</td>
<td></td>
</tr>
<tr>
<td><strong>16 y/o son:</strong> TST +; asymptomatic</td>
<td></td>
</tr>
<tr>
<td><strong>9 y/o daughter:</strong> TB5, symptom +, abnormal CXR</td>
<td></td>
</tr>
<tr>
<td><strong>6 y/o daughter:</strong> TST -, asymptomatic</td>
<td></td>
</tr>
<tr>
<td><strong>Aunt’s brother:</strong> TST +, asymptomatic</td>
<td></td>
</tr>
</tbody>
</table>
Evaluation and Treatment of Analyn’s Contacts (2)

- Analyn’s susceptibility results are now back, and the report shows the isolate to be sensitive to all first-line anti-TB drugs

Evaluation and Treatment of Analyn’s Contacts

Q10: What treatment regimen would be recommended for contacts in House #4?
Q10: Treatment Regimen for the Contacts in House #4

<table>
<thead>
<tr>
<th>Identity</th>
<th>Treatment Regimen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neighbor</td>
<td></td>
</tr>
<tr>
<td>Husband</td>
<td>INH x 9 months</td>
</tr>
<tr>
<td>4 year old daughter</td>
<td>INH window prophylaxis</td>
</tr>
<tr>
<td>3 year old son</td>
<td>RIF x 4 months</td>
</tr>
</tbody>
</table>

Step 8

Evaluate Contact Investigation Activities
When to Evaluate?

- When should you evaluate the contact investigation?

**Answer:**
- Results of CI reviewed weekly

Why Evaluate?

- Will help in the management, care, and follow-up of the TB case and contacts
- Analysis of the investigation in progress will allow prioritization of program activities and resources
- Will allow you to report on how well your objectives are being met for program monitoring and planning
- Will help you determine whether or not the investigation should be expanded
Deciding Whether to Expand Testing

Evidence of Recent Transmission:
- High infection rate in high-priority contacts
- Infection in a child (< 5 y/o)
- TST converters
- Secondary case
- TB disease in any contact assigned a low priority

Exercise #5:

Decide Whether to Expand the Contact Investigation
Summary of Initial Test Results

37 high-, medium-, and low-risk contacts:

- 7 did not have TSTs placed/read:
  - One 9 y/o with symptoms and abnormal CXR (presumptive TB)
  - 1 boyfriend of Named Friend #3
  - 3 classmates from Cosmetology College
  - 2 with prior positive TST (House #1)

- 30 of 35 who required TST had TSTs placed and read:
  - 12 TST+, all had normal CXRs
  - 18 TST- (one 2 y/o with abnormal CXR is presumptive TB; all other high-risk contacts had normal CXRs)

Q11: Would you expand the contact investigation at this point? (2)

- If yes, explain which group/setting you will include in the investigation or what additional steps you would take to inform you on whom to test

- If not, explain what your rationale is for not expanding the testing at this point and what information would lead you to reconsider your decision
When to Call It Quits

Before closing a contact to follow-up:

▪ Try different methods of contacting
▪ Visit or call at different times of the day
▪ Explore obstacles, offer incentives/enablers
▪ Consult your supervisor and other health team members

When to Call It Quits (2)

▪ Inform the contact of the risks of not completing their evaluation or treatment
▪ Document your efforts and strategies used and the contact’s response to each
▪ For certain high-risk contacts, more effort may be required
Special Settings...

- TB contact investigation steps also apply to CIs in special settings (schools, correctional facilities, healthcare facilities, etc.)
  - School CI toolkit - http://www.cdph.ca.gov/programs/tb/Pages/ResourcesLHDsTBCB.aspx
  - Corrections toolkit - http://sntc.medicine.ufl.edu/CorrectionsToolkit.aspx#.WA__JC0rLIU

- Identify stakeholders early and keep them informed
- Be prepared for possible media attention

Summary

- Contact investigations are an essential component to TB control and prevention
- Determining the infectious period helps to maintain focus on those most likely to have been infected
- Evaluating CI activities in real time will help maintain a focus on priorities
- Seek consultation for special situations (drug resistance, outbreak, large CI, etc.)