



Indiana
Department
of
Health

What a LHD Administrator Should Know About Tuberculosis

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OUR MISSION:

To promote, protect, and improve the health and safety of all Hoosiers.

OUR VISION:

Every Hoosier reaches optimal health regardless of where they live, learn, work, or play.



Overview

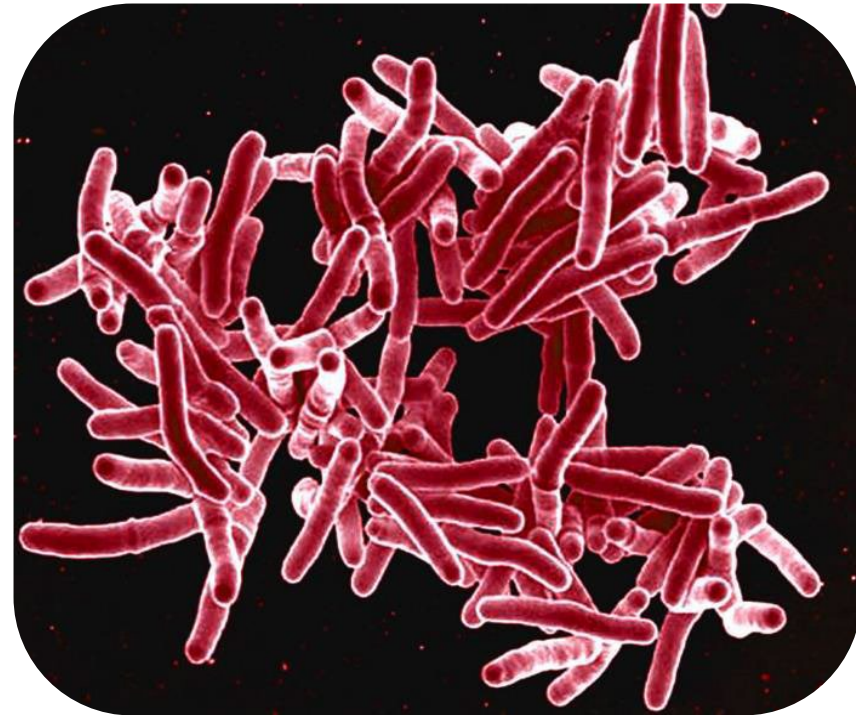
- Basics of Tuberculosis (TB)
- TB Core Services & LHD Responsibility
- Considerations for LHD Administrators
- IDOH TB Program Resources

Basics of Tuberculosis (TB)



Tuberculosis

- Tuberculosis (TB) is caused by the bacterium *Mycobacterium tuberculosis*
- Usually affects the lungs, but can attack any part of the body
- Divides at a slow rate
- Can persist as **latent** infection (LTBI)
- Requires a complex and extended treatment course



TB Disease Basics

Think TB...Test for TB

- How does it spread?
 - Person-to-person through the air
 - The bacteria is expelled via coughing, speaking, or singing
- Signs and symptoms of TB?
 - Cough greater than three weeks
 - Illustration to the right shows other symptoms

LONG-TERM
COUGH



FEVER



FATIGUE



CHILLS



WEIGHT LOSS



NIGHT SWEATS



COUGHING UP
BLOOD



NO APPETITE



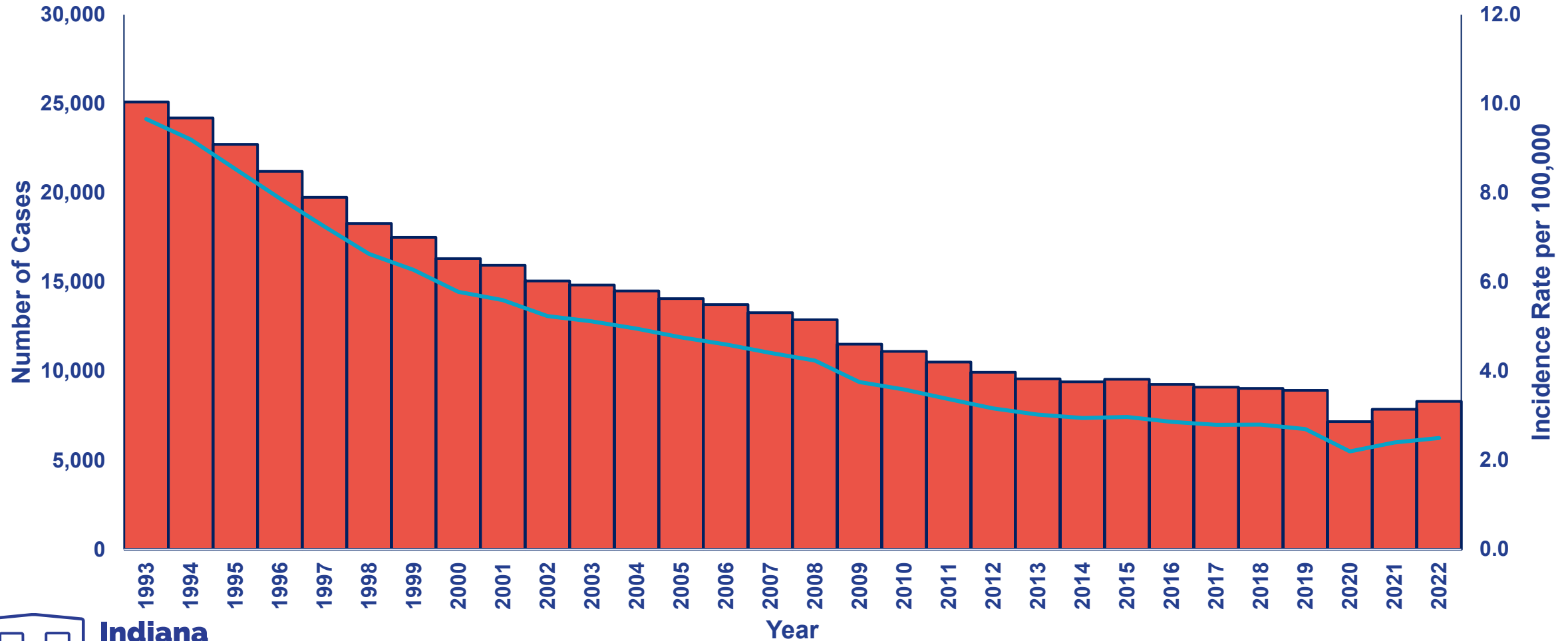
CHEST PAIN



LTBI Compared to TB Disease

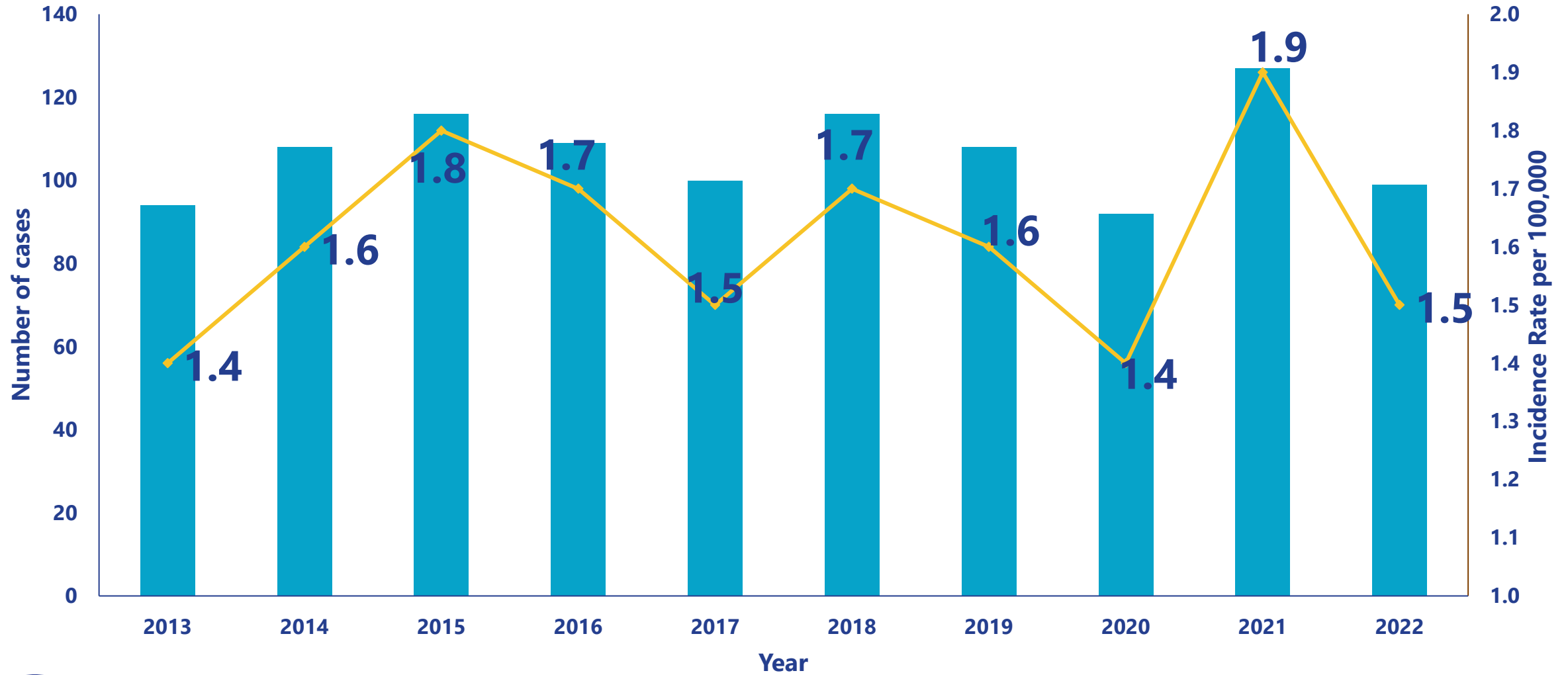
Person with LTBI	Person with TB Disease
Has a small amount of TB bacteria in their body that are alive but inactive	Has TB bacteria that are active in their body
Cannot spread TB bacteria to others	May spread TB bacteria to others
Does not feel sick	May feel sick and may have symptoms such as a cough, fever, and/or weight loss
Usually has a positive TB skin test or TB blood test result indicating TB infection	Usually has a positive TB skin test or TB blood test result indicating TB infection
Chest radiograph is typically normal	Chest radiograph may be abnormal
Sputum smears and cultures are negative	Sputum smears and cultures may be positive
Should consider treatment for LTBI to prevent TB disease	Needs treatment for TB disease
Does not require respiratory isolation	May require respiratory isolation

Reported Tuberculosis (TB) Cases and Rates United States, 1993-2022



Source: CDC Provisional TB Data in the United States, 2022

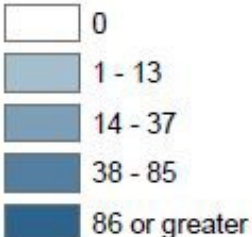
Indiana TB 10-Year Trend, 2013-2022



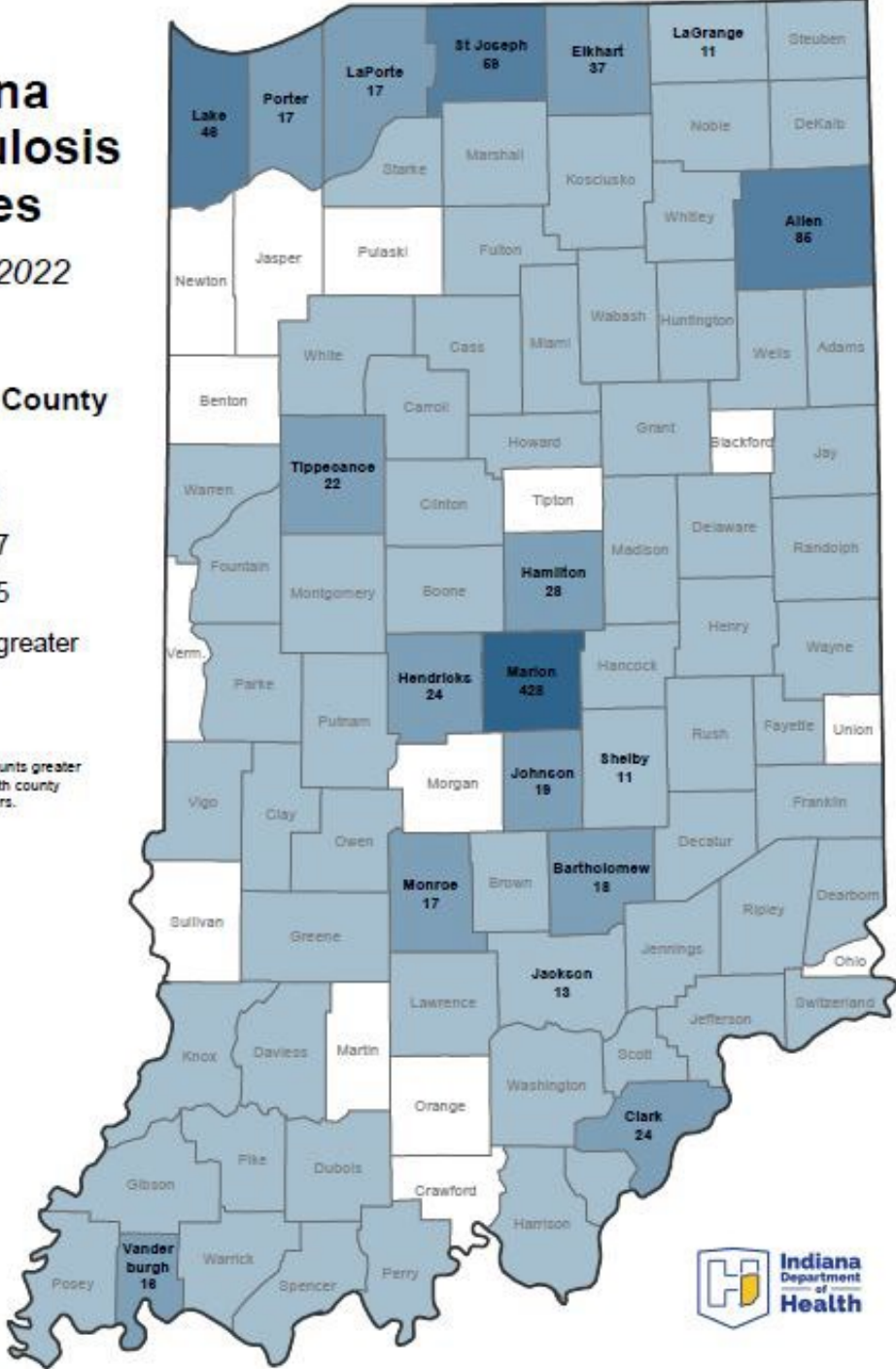
Indiana Tuberculosis Cases

2013 — 2022

Cases per County



*Counties with case counts greater than ten are labeled with county name and case numbers.



Overview of TB in Indiana, 2022

- Total TB Cases: 99
 - Top Jurisdictions:
 1. Marion (38)
 2. Allen (12)
 3. Hendrick and St. Joseph (5)
 - Incidence Rate: 1.5 cases of TB per 100,000 population
(compare to 2.5 for U.S.)
- Total Reported LTBI Cases: 1458
(preliminary report)
 - Top Jurisdictions:
 1. Marion (417)
 2. Tippecanoe (139)
 3. Hendricks (117)
 4. Hamilton (104)
 5. St. Joseph (96)

TB Core Services & LHD Responsibility



TB Prevention & Case Management Core Services

- LHDs should **provide or ensure case management for those with suspected or confirmed TB disease**, including investigation and specimen collection, enforcing isolation, providing directly observed therapy, and coordinating clinical and social needs.
- LHDs should **conduct contact investigations** for those diagnosed with infectious TB disease, including contact identification, education, testing, and treatment (as needed).

TB Prevention & Case Management Core Services

- LHDs should **coordinate clinical follow-up** for those designated with a Class B immigration status and provide or ensure case management and directly observed therapy for TB if needed.
- LHDs should work with IDOH to **identify and treat latent TB infection (LTBI)** according to the IDOH TB Elimination Plan.
- LHDs should be aware of the socioeconomic, environmental, and behavioral factors that place individuals in their communities at risk, such as housing/crowding, sexual behaviors, and underrepresented/underserved individuals

TB Case Manager

- Generally, the public health nurse (PHN) will serve as the TB Case Manager
- Case manager serves as the liaison linking all involved in patient's care together
- Case manager provides a variety of duties depending on the patient
- May need support for additional activities and back-up for time off

TB Case Manager Duties

- Conducts initial investigation, including patient interview & medical record review
- Ensures/coordinates clinical evaluation
- Enforces isolation
- Obtains TB medication through Purdue Pharmacy
- Provides treatment via Directly Observed Therapy (DOT)
- Collects laboratory specimens
- Monitors clinical progress & provides reports to provider/IDOH
- Documents all case management and treatment within state's surveillance system, NBS
- Provide education to patient & families
- Conducts a contact investigation, including notification, testing, documentation, and treatment
- Supports/coordinates social needs, including housing, food, health insurance, etc.

Considerations for LHD Administrators



Staffing

- Managing a TB case can be a **full-time job**, especially in the first few weeks of treatment/investigation
- DOT is a **daily activity**, recommended 7 days/week and over holidays for early treatment/certain patients
- Requires nursing/clinical staff for some duties
 - Can use community health worker/non-clinical staff to provide services like DOT, data entry, etc.
- Need to ensure there is coverage for case management duties, especially DOT, for time off/staff resignations

Funding

- Consider the funding implications a patient with TB disease would have on your health department
- Patients are generally assumed to cover the cost of their own care
 - IDOH lab testing & TB medications are provided free of charge
- LHD may incur costs when providing testing for exposed contacts during a contact investigation
 - Best practice to offer free testing to remove barrier to testing
 - IDOH laboratory provides IGRA testing at \$20/test

Community Partnerships

- Important to have established partnerships for TB-related services including clinical & social needs
- Clinical care
 - Provider comfortable prescribing TB disease medication
 - Radiology to provide low-cost chest x-rays
 - Laboratory for IGRA testing (if not in-house)
- Housing that will meet isolation requirements (ie motels vs hotels)
- Food pantries/food resources
- Mental health & substance use resources

Interpretation

- Providing services to a person in their language of choice is the ethical & legal thing to do
- Likely to encounter individuals who prefer to converse in another language while providing TB services
- Certified interpreters should be used/available for all interactions
 - It is not appropriate to utilize family members/friends to provide interpretation
 - Google Translate is not an acceptable tool
- Several vendors available for in-person or telephonic interpretation
 - Partner with local hospitals/community groups

Phlebotomy

- Considering having on-site staff trained in phlebotomy to perform IGRA testing for TB
 - Preferred test among many populations, including immigrants
 - Preferred among many clinicians
 - Acceptable in most settings (Health care, LTC, etc.)
- IDOH Laboratory can provide IGRA testing (Quantiferon)
- IDOH TB Program to provide phlebotomy training

Preparation Ahead of Patient with TB Disease

- Written plan for coverage of case management duties
 - DOT coverage & backup
- Obtain sputum containers from the IDOH Lab via Limsnet
- Ensure staff are FIT tested for N-95s & order supply of properly sized masks
- Have DOT & isolation agreements, other documents prepared
- Have a list of community partnerships/resources established

IDOH TB Program Resources



TB Resources Available

- Clinical consultation
 - TB Regional Nurse Consultants
 - TB Medical Consultant – Dr. Brad Allen
 - TB Center of Excellence (Rutgers)
- Case management & technical support/consultation
- Contact investigation consultation & site visit support
- Training & education for new LHD staff
- Training & education resources for providers, patients, etc.
- Assistance with data entry for large investigations

TB Resources Available

- Laboratory TB testing via IDOH Laboratory
 - IGRA, AFB smear, PCR, culture, drug sensitivity testing, pyrosequencing, genotyping
 - Testing of hospital-collected samples by request
- TB medications via Purdue Pharmacy
 - TB disease
 - LTBI
- Reimbursement for enablers & incentives via Hoosier Uplands
 - Groceries, phone minutes, transportation, housing, etc.

Contact Information

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