



Massachusetts Department of Public Health

Division of Global Populations Annual LBOH webinar

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Division of Global Population and Infectious Disease Prevention

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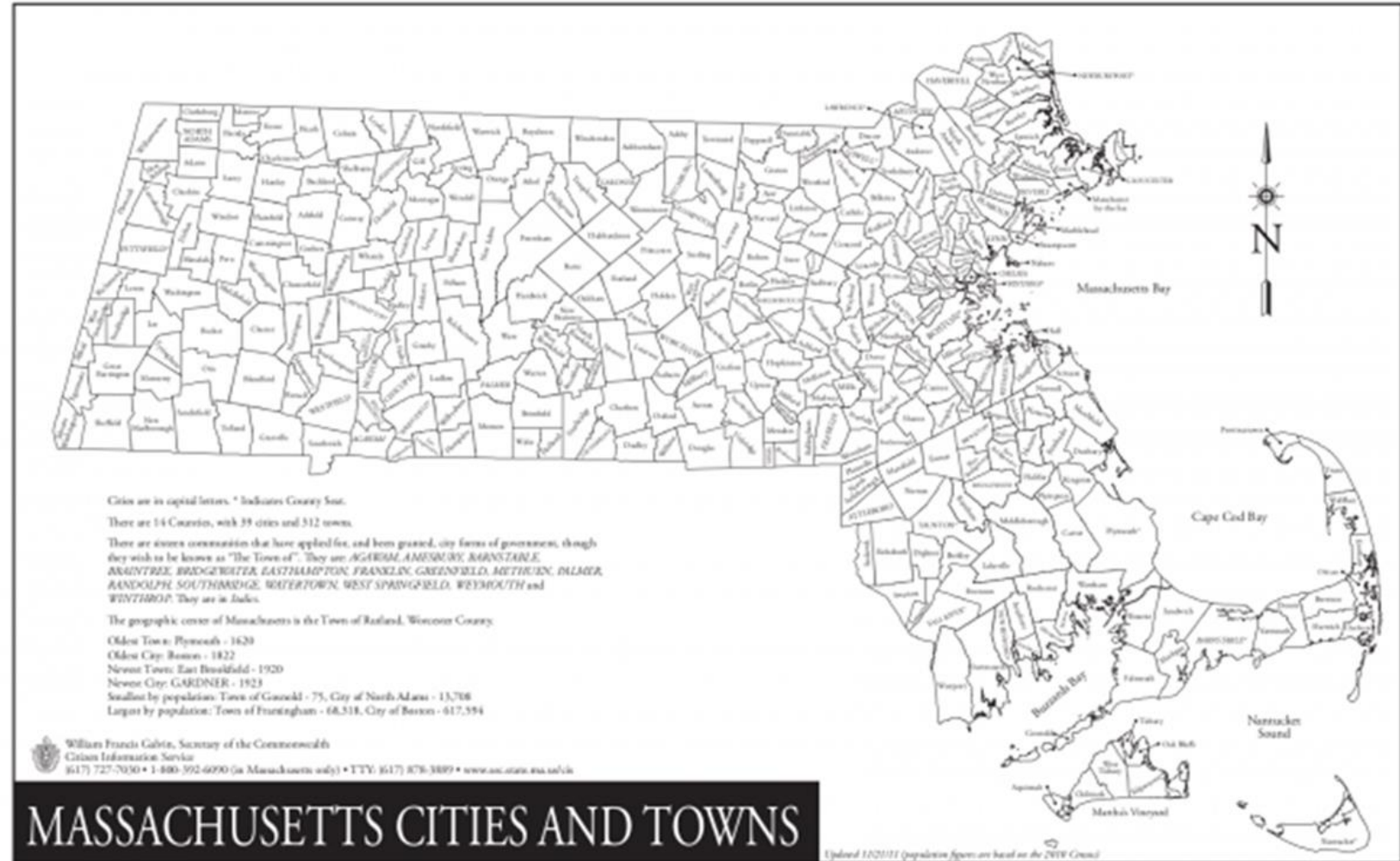
Michael Boyer

2023 Year in Review

- In 2023, together we cared for 224 people affected by TB disease in Massachusetts and their families. This included:
 - 169 people with pulmonary or mixed pulmonary and extrapulmonary TB
 - 15 children from birth to 19 years of age
 - 5 individuals with multi-drug resistant (MDR) TB
- This doesn't capture the number of TB contacts screened, newly arrived individuals with Class B designations linked to care, or vulnerable individuals with latent TB infection supported.
- Wish to acknowledge the hard work and partnership over the past year by so many on this call. TB is truly a team sport.

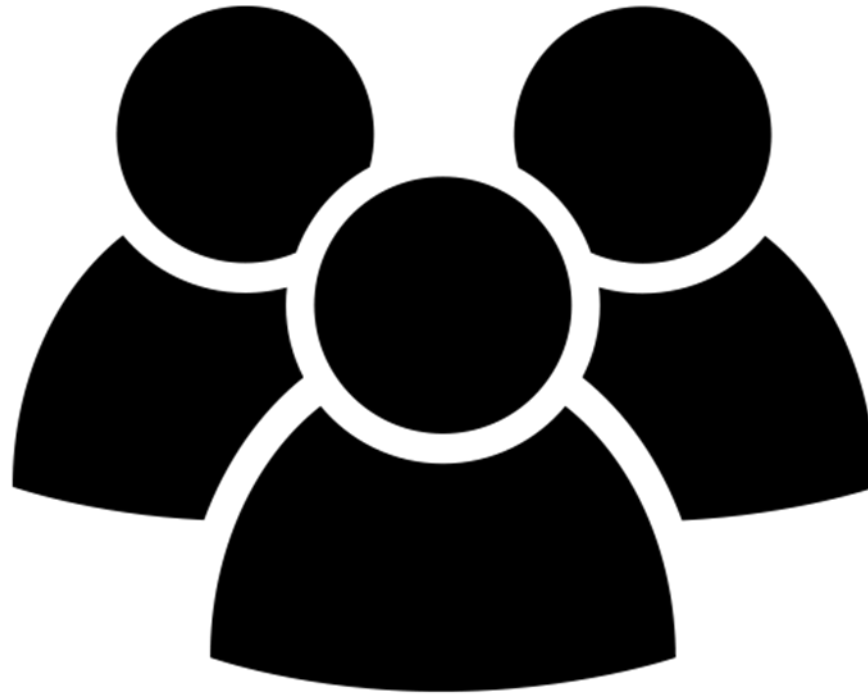
Partnerships with local boards of health

- Shared responsibility for TB nurse case management with DPH teams and local boards of health
- Local public health nurse is the direct case manager
- State TB nurse is the indirect case manager



The Team Approach

State Tuberculosis
Response
Epidemiologist



State and Local Public
Health Nurses

Direct Services Coordinators/
Direct Services Community Health Workers

MDPH Division of Global Populations: Tuberculosis

- Questions related to **Tuberculosis** casework can go directly to the TB Program:
 - TB Email: BIDLS-TBGeneral@mass.gov
 - TB Program Phone: **(617) 983-6970**
 - **Check Your Town's Communication Event in MAVEN.** Listed under **DGP Contacts** (Division of Global Populations) in MAVEN.
 - State Direct Services Coordinator
 - State TB Epidemiologist
 - State TB Nurse

Town Communication Event Example

DGP Contacts				
First Name	Last Name	Title	Email	Phone
Arnaud	Barbosa	State Direct Services Coordinator	MDPHEmail	(123) 123-1234
Steven	Shelley	State TB epi	MDPHEmail	(123) 123-1234
Anna	Hippchen	State TB Nurse	MDPHEmail	(123) 123-1234

Summary of Massachusetts TB Regulations and Laws

- 105 CMR 300: TB infection and disease are reportable
 - Laboratories: Report positive NAAT or culture. Electronic Laboratory Reporting (ELR) facilitates timely reporting to DPH (but not all labs are on ELR)
 - Healthcare providers: Report suspected active TB and confirmed active TB cases directly to DPH (including extra-pulmonary TB)
- 105 CMR 365: Standards of management of TB outside hospitals
 - 365.200: Case management
 - 365.600: Discharge planning from hospital into the outpatient setting
- MGL Chapter 111 Section 94A-C: Compulsory hospitalization of person with infectious TB

Role of Local Public Health Nurses (TB Case managers)

- **Direct Nurse Case Management**
 - Initial and ongoing assessment
 - Home visit / assessment to support safe discharge
 - Identification of household contacts
 - Monitor for adverse reactions and adherence
 - Monitor for improvement
 - Coordinating and Providing DOT
 - Provide appropriate education and information
 - Verify completion of therapy
 - Document activities

Role of DGP clinical expertise (TB nurse advisors, MD)

- **Indirect Case Management**
 - Consultation and support for LPH
 - Consultation to clinical providers and inpatient facilities
 - Consultation to Corrections
 - Review nursing assessments, tracking care of patients & contacts
 - Discuss changes to care plan
 - Assure access to treatment
 - Collect and verify data that is reported to the CDC



Role of DGP Epidemiologist

- **Contact investigations with LBOH**
 - Determine infectious periods
 - Identify exposure sites, exposed individuals, and follow contacts through testing and treatment completion
 - Facilitate IGRA testing through Quest
 - Work with LBOH to organize large testing events as needed
- **Surveillance**
 - Requesting medical records from clinics and hospitals for each case and contact
 - Make sure that all information is up to date in surveillance system to assist case management team (including LBOH)
 - Data entry for RVCT (TB disease reporting form for CDC) and identified contacts

Potential Role of Non-Clinical LBOH staff

- **Interviewing Patients**
 - Interviewing for contact investigations, patient demographics and risk factors, illness history for surveillance purposes.
 - Making notes in MAVEN after each interview
- **Contact investigations**
 - Collaboration with Local TB nurse case manager and DGP epidemiologist to determine contacts, exposures sites, and logistics for testing.
- **Data management along side DPH staff**
 - Requesting and attaching records, providers/clinics, treatment completion dates, etc. for TB disease cases and/or high priority LTBI
- **May assist with DOT under the guidance and instruction of the Local TB nurse case manager (after appropriate training)**

Role of DGP Direct Services Team

- DST role is providing CHW outreach and follow-up support
- The team approach engages Direct Services Regional Coordinators early in case management to:
 - Determine type of Direct Services (CHW outreach and follow-up) support needed
 - Assess available CHW resources to respond to outreach request
 - Coordinate CHW activities related to TB case management

Direct Services Outreach Requests

- LBOH nurse requests outreach:
 - Through “Care Plan Follow-up” Question Package in MAVEN
 - Direct email contact with DST Regional Coordinator
- All outreach requests are reviewed on a case-by-case basis based on available CHW resources. CHWs also serve
 - Newly arrived refugee families going through refugee health assessment
 - Newly arrived refugees with B1 diagnosis, in partnership with LBOH nurse
 - Priority LTBI, including refugees diagnosed with TB infection
 - Pregnant moms with positive Hepatitis B surface antigens
- Patient's geographic location determines type and level of CHW support

Type of Direct Services CHW Support for active TB

- Basic TB education
- **Adherence to meds**
- Monitor meds side effects
- **Cultural brokering**
- **Sputum collection**
- **Arrange transportation**
- Active listening
- **Interpretation (language support)**
- **Assess food security of a patient**
- Technical assistance

Direct Services in **Bold** are further outlined in the next slides.

CHWs Treatment Adherence Support for Active TB Patients

Directly Observed Therapy (DOT) support

- CHW coverage is negotiated based on availability of CHW resources
- Appropriate strategies for DOT may also change over the course of a person's treatment
 - In-person DOT
 - Preferred in the initial weeks of treatment to establish rapport, support home assessments, contact investigations, cultural brokering, and provide counseling and education
 - CHWs may be available for a joint home visit with the LPHN and then for 1-3 in-person visits over the next 2 weeks

CHWs Treatment Adherence Support for Active TB patients

- mDOT (mobile observed therapy)
 - Available through MDPH-approved platform (Teams)
 - CHWs may be available for 1-3 days of mDOT
 - For individuals on mDOT, LBOH nurses take the responsibility of in-person visits to provide services that are clinical in nature (for example, weekly filling of pill boxes)
- Weekly/bi-weekly/monthly phone check-in support may be available as needed
 - Patients with active TB diagnosis without CHW assignment for in-person or mDOT support

CHWs as cultural brokers

- **Cultural brokering**
 - A health care intervention through cultural and health science knowledge and skills to negotiate with the client and the health care system for an effective, beneficial health care plan (Wenger, 1995)
- **CHWs serve as cultural brokers**
 - To bridge, link, or mediate between persons of different cultural background for the purpose of increasing understanding/ reducing conflict

Direct Services Team Role in Sputum Collection

- CHWs provides/reinforces education on sputum collection to patients
 - CHWs cannot pick-up or drop-off sputum specimen/TB Test Kits
- Regional coordinators:
 - Mail sputum cans to LBOH, on a case-by-case basis
 - LBOH nurse should order TB Test Kit from the State Lab for their use
Email: masph.specimenkitorders@mass.gov
Phone number: **617-983-6640**
 - **Test Kit requests should include:**
 - LBOH name and contact information (address and phone number)
 - Type and number of Testing Kits needed
 - If Testing Kits will be picked up or mailed
 - Mail UPS Biohazard Envelope Mailers to ship sputum samples to the State Lab
 - Request UPS envelopes at least one week before they are needed

MDPH Transportation Support

- LBOH nurse:
 - Assess transportation need of a patient and emails transportation support request **48 work hours** before a transportation service is needed
- Regional Coordinators:
 - Confirm transportation need
 - If transportation support is approved, Regional Coordinator will:
 - Coordinate transportation support with a contracted company
 - Confirm transportation service, by email, within **24 work hours** after request is made
 - Trouble shoot with a transportation company/patient if issues arise during pick-up or drop off
- MDPH transportation support is a resource of last resort

CHWs Role as an Interpreter or Language Support

- CHWs provide interpretation to LBOH nurses during a joint visit with a patient
 - CHWs provide interpretation/language support, on rare occasions, for other TB case management activities
 - E.g., when the issue at hand is determined urgent by State TB nurse/Regional Coordinator (e.g., medication side effect)
- LBOH should use interpreter line for routine TB case management follow up

Language Line Solutions

Dial: 866-874-3972

Code: 684959

Food Security for Individuals with Active TB

- DGP partners with Community Servings to provide meals during the initial phase of TB treatment (short term support)
- LBOH could submit meal support request to the State TB nurse
 - State TB nurse passes request to a Regional Coordinator
 - A Regional Coordinator/Community health worker will assess need using an assessment tool. If approved for meal support:
 - Community Servings will deliver meals to the individual diagnosed with active TB and eligible dependents
 - Regional Coordinator/community health worker will assess food security, every four weeks, to determine continued support

We Are TB



Anyone can get tuberculosis.

We Are TB is here for **YOU**. Talk to someone who understands.

We Are TB volunteers have been where you are right now. We understand. We're here to support you during diagnosis and treatment, through your struggles, triumphs, and fears.

During and beyond treatment, members of **We Are TB** can serve as advocates, raising awareness about TB, and sharing their personal story to educate and reduce the stigma of TB.

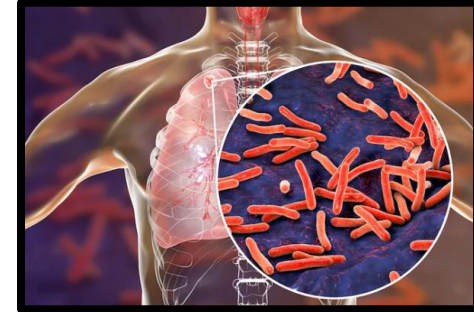
Weekly PEER Support
groups, available in
English & Spanish

<https://www.wearetb.com/>

Maven Workflows and Reports

Tuberculosis (TB) in MAVEN

- TB is an infection or disease caused by a germ that you breathe into your lungs. **There are two forms of TB: TB infection and TB disease.**
 - **TB Infection (or Latent TB Infection (LTBI))**
 - People have a small amount of TB germs in their bodies that are alive but inactive
 - Do not feel sick, do not have symptoms, and cannot spread TB germs to others
 - Can have latent TB infection for years
 - **TB Disease**
 - If TB germs become active and multiply, latent TB infection can turn into TB disease
 - Treatment of latent TB infection can prevent TB disease
- MAVEN workflows assist in identifying which TB Disease and LTBI events require follow-up.



Notifications

Disease State **1**

Disease State: TB Disease

Event/Status/Date/Type Notifier **3**

Event Status: Suspect

01. Administrative - Sue Maiden - Tuberculosis

Disease state *

TB Disease

Differentiated by
'Disease State'
variable.

Immediate Event Notification Sent Date/Time

TB suspect/case notification

New Suspect Tuberculosis case in MAVEN.



MavenHelp (DPH) <mavenhelp@r

To ● Hippchen, Anna C (DPH)



Fri 3/31

Event 129220468 - suspected Tuberculosis for TB_DISEASE. Access event at <https://sso.hhs.state.ma.us/vgportal/login> Please coordinate follow-up with MDPH. If this link does not work copy and paste to your Browser!

Immediate Notifications

Workflow Queue



TB suspect/case notification not acknowledged

Follow-up First Steps

Local Health and Investigation Steps (1 - 5)

Step 1 - LBOH acknowledged:

Yes

LBOH acknowledged date

04/22/2022



Step 2 - Investigation started:



Step 3 - LBOH/Agency Investigator: **Assign To Me**

Step 4 - Case Report Form Completed: ¹

Yes

Case Report Form complete date:

04/22/2022



Notifications

Disease State ¹

Disease State: TB Disease

Event/Status/Date/Type Notifier ³

Event Status: Confirmed

Event Date: 04/22/2022

Event Type: Report Date

Workflow Status ¹

Event ID is in workflows [View List]

Person Summary ¹

Patient Summary

Case Classification ¹

MDPH Team: 5

Complete steps 1-3 in the
Administrative Question Package!

Attachments: 25 (Add) (View)

In many cases the Case Reporting Form and other information will be attached. If the case reporting form came through electronically, you can get the same information by viewing the TB Case Report Form Wizard

Communicate with your DPH case management team. If you don't know who your team is look in your town's communication event!

LBOH LTBI (Latent TB Infection) Priority Follow-Up workflow

- **Persons who are close contacts to someone with active TB disease**
 - Testing, referrals may be needed, in collaboration with DPH
- **Persons arriving with a TB Class A/B notification**
 - LBOH provides case management including making contact, recommending next steps, referral, monthly phone calls for treatment adherence support
 - For Refugees who arrive with a Class A/B TB notification
 - First steps are taken by DPH Direct Services Team and refugee health assessment provider
 - LTBI treatment adherence support by LBOH is very helpful
- **Children**
 - Prioritize < age 5, call provider to ensure there is a referral for X-ray and appropriate medical evaluation, DOPT support may be needed
 - Age 5-17: if you have time call provider to confirm there is a referral for X-ray and care

Who arrives with a Class A/B notification?

- **The U.S. Department of Health and Human Services has authority to regulate the medical examination of immigrants and refugees before admission**
 - Overseas panel physicians screen for communicable disease of public health significance
- **CDC refers individual to us for TB evaluation if:**
 - Chest X-ray is abnormal (with negative smears)
 - TST or IGRA is positive
 - History of active TB in the past
 - Known recent contact to active TB
 - Known HIV infection

Class A/B Roles & Responsibilities

- **LBOH nurse, as case manager, reaches out to the arrival, coordinates testing, refers to a TB clinic & submits final EDN Worksheet**
- **DPH/DGP Program**
 - Data team manages notifications from federal partners, attaches files & creates Quest orders
 - Direct Services team sends welcome letter to patient and coordinates outreach with LBOH and community health workers
 - DPH Nurses are generally ***not*** involved with Class B follow-up unless reported as Active TB

LBOH TB Class A/B Worksheet Complete Workflow



LBOH TB Class A/B Worksheet Complete

- **Who is in the Workflow:** Residents of your town whose Class A/B evaluation or treatment documentation is not yet completed
- **To Remove an Event from the Workflow:** Fax the completed TB Worksheet to 617-887-8791 (including ATS classification and treatment completion date, if applicable) or task the State-TB Class AB group

Prioritization of people with Class A/B TB notifications

- Within the **LBOH LTBI Priority Follow-Up workflow**, there is a process recently added to support LBOH in prioritizing their efforts/time
- Goal of completion of TB evaluation < 90 days from arrival
 - These targets are ambitious in a good year
 - Recognize limitations of clinic capacity, and increased number of arrivals after early pandemic back-logs
 - Not all TB Class B arrivals have the same level of urgency to their eval
 - MA DPH review is an effort to prioritize those arrivals who should be seen earlier, and those for whom an appointment booked further out would be acceptable

Tips & Tricks for MAVEN and TB

- Team Epis are responsible for MAVEN variables that go to CDC for TB Disease cases
- When requesting IGRA for contact testing, epis need: First Name, Last name, Gender, Date of Birth, Phone number, and Address
 - LBOH can create and link contacts, put notes in the index case or get contacts' info to epi in a different way
- If contact, TB case, or LTBI is moving to another state/city/country, Epis need new address and contact info before we can make transfer

TB reports TB Sheet for LBOH

- Help you pull your town's TB data down correctly.
 - Remember: TB Infection and TB Disease are different!
- Refer to webinar/office hours from Feb 27th how to run reports.
 - [Slides](#) & [Recording](#)
- DSAI is happy to assist with reports




Tuberculosis Reports Tip Sheet for LBOH Users

Desired Data	Report Name	How to Run Report	Notes / Considerations
TB Disease case total with ability to extract complete question packages	DGP Event Information Extract by Disease	From the MAVEN splash screen, click on "Reports." For category value, select "Custom Reports." Select "DGP Event Information Extract by Disease." Select / input desired values for report parameters. Note that you should select "Tuberculosis" for the disease value. For disease state, select "TB Disease."	Allows for selection of entire question packages (please restrict question packages to only those that you need). Users should run this report instead of the LBOH Event Information Extract by Disease report.
TB Infection case total with ability to extract complete question packages	DGP Event Information Extract by Disease	Follow the steps above but select "TB Infection" instead of "TB Disease" for the disease state value.	Allows for selection of entire question packages (please restrict question packages to only those that you need). Users should run this report instead of the LBOH Event Information Extract by Disease report.
TB Disease and TB Infection aggregate case total by classification and jurisdiction(s) for up to a 30-day period	LBOH Count – Events Per Disease and Classification in Jurisdiction	From the MAVEN splash screen, click on "Reports." For category value, select "Custom Reports." Select "LBOH Count – Events Per Disease and Classification in Jurisdiction." Select / input desired values for report parameters.	Do not run this report for a period greater than 30 days. LBOH can select multiple jurisdictions if they have access to those jurisdictions. MAVEN superusers cannot run this report unless they have specific access to the selected jurisdictions.
TB Disease and TB Infection aggregate case total by classification and jurisdiction(s) for greater than a 30-day period	LBOH Basic Line List	From the MAVEN splash screen, click on "Reports." For category value, select "Custom Reports." Select "LBOH Basic Line List." Select / input desired values for report parameters.	LBOH can select multiple jurisdictions if they have access to those jurisdictions. MAVEN superusers cannot run this report unless they have specific access to the selected jurisdictions.

[Tuberculosis Reports Tip Sheet for LBOH Users](#)

Division of Global Population's TB Program Resources

- Technical assistance and consultation
 - Available throughout course of treatment
 - From early diagnosis to completion of therapy
- Access to IGRA testing for contact investigations
- Community Health Worker support
- [MAVEN Help Section](#) 
- Health education materials for patients
 - <https://www.mass.gov/lists/tb-information-for-your-patients-in-english-and-other-languages>

TB Email: BIDLS-TBGeneral@mass.gov

TB Program Phone: **(617) 983-6970**

- ▢  [Global Populations and Refugee Resources \(Includes Tuberculosis\(TB\)\)](#)
 - ▢  [Class A/B](#)
 - ▢  [General Information](#)
 - ▢  [New arrivals](#)
 - ▢  [Overview of Tuberculosis for LBOHs](#)
 - ▢  [Presentations](#)
 - ▢  [TB DOT](#)
 - ▢  [Tip Sheets](#)

Additional, external resources

- TB Centers of Excellence for Training, Education, and Medical Consultation
 - Rutgers Global TB Center: <https://globaltb.njms.rutgers.edu/>
- CDC – Division of Tuberculosis Elimination
 - <https://www.cdc.gov/tb/default.htm>
 - Continuing education modules, including case management
- CDC's Health education materials for patients
 - https://www.cdc.gov/tb/education/patient_edmaterials.htm
- Stop TB
 - <https://www.stoptb.org/>
 - Words, language matters: <https://www.stoptb.org/words-matter-language-guide>