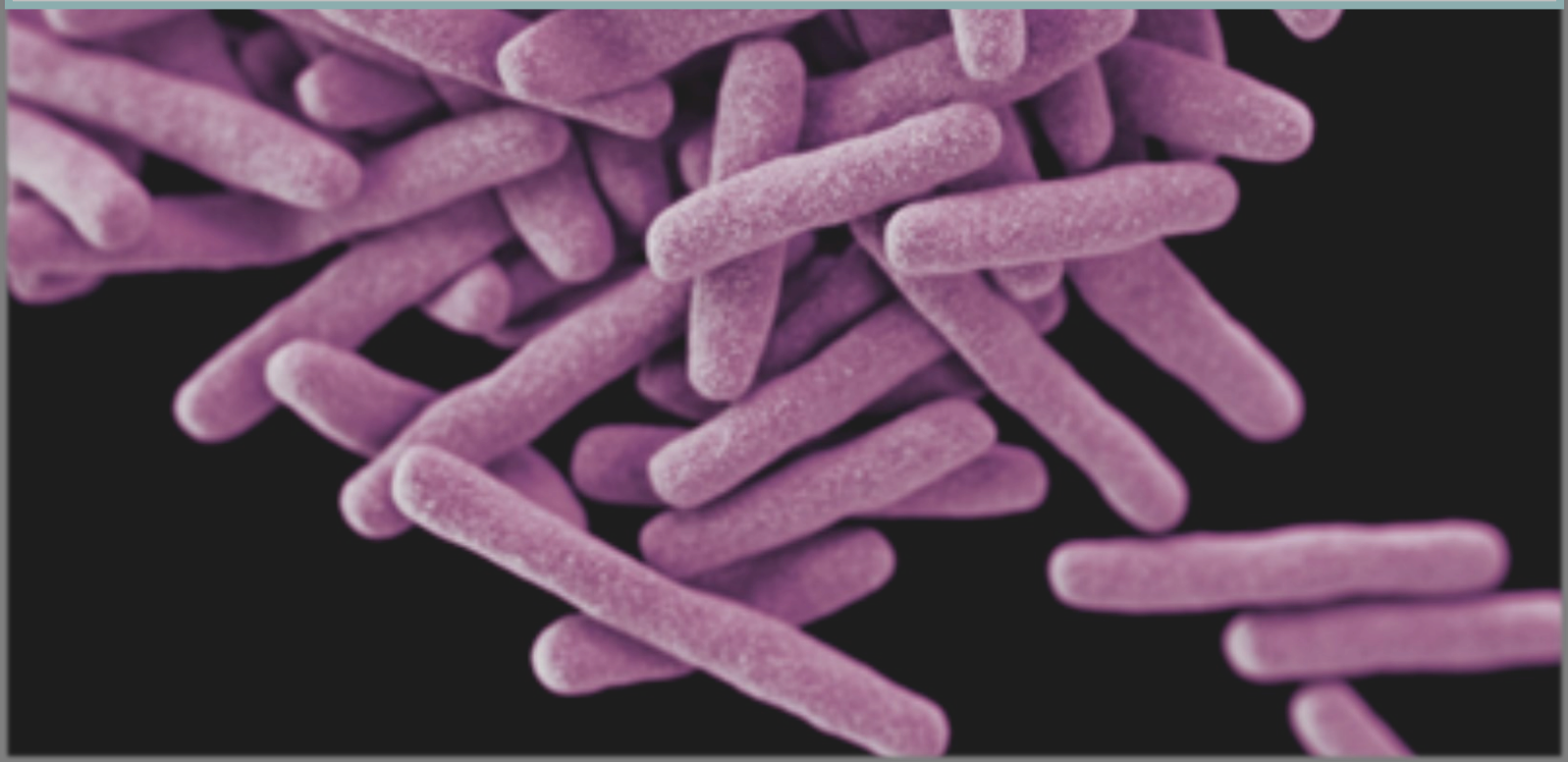
2016 WORLD TB DAY

MIGRATION & TUBERCULOSIS

Conference Resource Packet



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Tuberculosis Infection

Quick Facts

1. TB bacteria are spread through the air when a person who is sick with TB disease coughs, laughs, sings, or sneezes. They cannot spread through shaking hands or sharing food.
2. If someone breathes in air that has TB bacteria, they can get TB infection.
3. The only way for a person to know if they have TB infection is to have a TB skin test or blood test.
4. If someone has TB infection that means their immune system has contained the bacteria, so the bacteria are not making the infected person sick.
5. Since a person with TB infection has the TB bacteria contained, they cannot spread TB to others.
6. If a person with TB infection does not take medicine to kill the TB bacteria, they can eventually get sick with TB disease. Someone with TB disease can spread the TB germs to others.

What is Tuberculosis (TB)?

TB is a disease caused by bacteria called *Mycobacterium tuberculosis*. The bacteria usually attack the lungs, but can attack any part of the body such as the kidney, spine, and brain. If not treated properly, TB disease can be fatal. TB is spread through the air when a person with TB disease of the lungs or throat coughs, sneezes, speaks, or sings. Other people who spend a lot of time near the person with disease may breathe in these bacteria and become infected. The bacteria are not spread through shaking hands or sharing food.

What is TB Infection?

Not everyone infected with TB bacteria becomes sick. People who are infected but not sick have what is called TB infection. People who have TB infection do not feel sick, do not have any symptoms, and cannot spread TB to others because their immune system is healthy enough to keep the bacteria from growing. Without treatment for TB infection, some people go on to get TB disease, especially those who already have weak immune systems.

What is TB Disease?

If an infected person's immune system cannot stop the TB bacteria from growing, the bacteria will begin to multiply in the body and cause TB disease. The bacteria attack the body and damage organs. Some people develop TB disease soon after becoming infected, before their immune system can fight the bacteria. Other people my get sick years later, at a time when their immune system weakens. In fact, 1 in 10 people infected with TB infection eventually develop TB disease if not treated. People with TB disease of the lungs or throat can spread TB to others when they cough or laugh. People with TB disease typically have a cough lasting 3 weeks or longer, pain in their chest, blood in their cough, weakness or tiredness, weight loss, no appetite, fever, and/or sweating at night.

How Can I Find Out if I Have TB?

People typically discover they have TB infection through a TB skin or blood test. A positive test only means a person has TB bacteria in their body, not that they have TB disease or that they can spread TB to others. Someone with a positive TB test will need to have other tests to find out if they have TB disease. A person with TB infection should take treatment to prevent them from developing TB disease in the future. A person with TB disease should receive further tests and treatment. The health department will also work with a person with TB disease to prevent the spread of TB to others and test other people who may already have been exposed by spending time with the sick person.

Public Health Fact Sheet

HOME ISOLATION FOR TB

To contain the spread of an infectious illness, public health authorities rely on many strategies. One of these strategies is **home isolation**. This is a common practice in public health that aims to control exposure to an infectious (able to spread germs to others) or potentially infectious person. This may be undertaken voluntarily or mandated by public health authorities under law by the State of Michigan. This information will help you understand more about TB and what home isolation involves.

What is tuberculosis?

Tuberculosis (TB) is spread from person to person through the air. TB germs are put into the air when you have TB germs in your lungs or throat and you cough, sneeze, laugh or sing. People who are near you can breathe in the TB germs and become infected. TB is **not** spread on clothing, linen, furniture, toilets or by shaking hands. You cannot spread TB on eating utensils, plates, or cups.

What is home isolation?

Your doctor is sending you home on "home isolation". This means you are not sick enough to need hospital care, but you are still infectious. Home isolation helps prevent the spread of TB because you stay home and away from other people while you are infectious.

While you are on home isolation, please remember to:

- Stay at home unless you need medical care. You should put off all non-emergency appointments (dentist, hairdresser, etc.) until you are no longer infectious.
- If you must go to the doctor, **wear a mask and tell the office staff you are being treated for TB**.
- If you have to be picked up by ambulance, **tell the paramedics you have TB**.
- Do not have visitors. Stay away from people who do not live with you. Infants, young children, and people with weak immune systems (cancer patients, people with HIV, people who have had an organ transplant, and those taking steroids) can catch TB very easily.
- **If you must be around other people while inside, wear a mask at all times.**
- You may be outside in the open air without a mas. It is harder for TB germs to infection others outside.
- You may not ride in taxis, buses, trains, or airplanes.
- You may not go to school, work, church, the store or any other public place.
- Cover your mouth with a tissue when you cough, sneeze, or laugh. Throw the tissue in the trash.
- Sleep alone in a separate room.
- Air out the room you are staying in by opening the window when the weather allows. You can also put a fan in the open window backwards so the air is blown outside.

How long will I need to be on home isolation?

Home isolation is different for each person. Home isolation may last days, weeks, or months. The contagious period of your TB depends on how well your body responds to treatment. This will be based on the results of your sputum tests, x-rays and decreasing symptoms. Taking every dose of your TB medicine kills the TB germs and will help home isolation end sooner. The health department will tell you when you are no longer infectious and may resume activities such as work, school, or shopping.

Public Health Resource Sheet

TB PATIENT RESOURCES

TOPIC	LOCATION	CREATED BY	RESOURCE TYPE	DESCRIPTION
GENERAL INFORMATION				
LTBI	http://www.michigan.gov/documents/mdhhs/MDHHS_LTBI_Factsheet_517303_7.pdf	MDHHS TB Control Unit	Fact sheet	Explains the difference between TB disease and LTBI, in simple, non-medical terms.
Tuberculosis	http://www.cdc.gov/tb/publications/factsheets/general/tb.pdf	CDC	Fact sheet	Written in simple, non-medical terms to give patients information about TB disease and infection, the BCG vaccine, and how to get tested and treated for TB.
TESTING				
Blood Test (IGRA)	http://www.cdc.gov/tb/publications/factsheets/testing/igra.pdf	CDC	Fact sheet	Describes TB blood tests (IGRAs) for patients in simple, non-medical terms.
	https://public.health.oregon.gov/DiseasesConditions/CommunicableDisease/Tuberculosis/Documents/patiented/qft/QuantiferonENG.pdf	Oregon Health Authority		Describes the QuantiFERON™-TB Gold In-Tube test for TB in simple, non-medical terms for patients.
Diagnosis of TB	http://www.cdc.gov/tb/publications/factsheets/testing/diagnosis.pdf	CDC	Fact sheet	Describes the process and steps involved in diagnosing TB disease and LTBI.
Skin Test	http://www.cdc.gov/tb/publications/factsheets/testing/skintesting.pdf	CDC	Fact sheet	Describes the TST (Mantoux tuberculin skin test) for patients in simple, non-medical terms.
	http://www.health.state.mn.us/divs/idepc/diseases/tb/factsheets/tsteng.pdf	Minnesota DOH	Fact sheet	
Sputum Collection Instructions	http://www.health.state.mn.us/divs/idepc/diseases/tb/factsheets/sputeng.pdf	Minnesota DOH	Fact sheet	Describes how and why sputum is to be collected for a TB test.
	http://www.publichealthmdc.com/media.cfm	Public Health of Madison & Dane County	Video	Explains how to properly collect sputum at home for TB testing.
Testing for TB	http://www.cdc.gov/tb/publications/factsheets/testing/tb_factsheet.pdf	CDC	Fact sheet	Designed to give patients information about TB testing by describing the difference between LTBI and TB disease, TST and IGRAs, and how the BCG vaccine can interfere with tests.
TREATMENT				
Treatment for TB Disease	http://www.cdc.gov/tb/publications/factsheets/treatment/treatmenthivnegative.pdf	CDC	Fact sheet	Describes basic treatment regimens for drug-susceptible TB disease in persons not infected with HIV.
Treatment for LTBI	http://www.health.state.mn.us/divs/idepc/diseases/tb/factsheets/ltbieng.pdf	Minnesota DOH	Fact sheet	Gives information in simple, non-medical terms for patients. They include warning signs for drug interactions and tips for remembering to take medications.

TOPIC	LOCATION	CREATED BY	RESOURCE TYPE	DESCRIPTION
	http://www.cdc.gov/tb/publications/pamphlets/12doseltbitreatmentbrochure8.5x11.pdf	CDC	Pamphlet	Describes the 12-dose regimen for treating LTBI for patients in simple, non-medical terms.
	https://apps.state.or.us/cf1/DHSforms/Forms/Served/le8364.pdf	Oregon Health Authority	Fact sheet	Describes daily treatments of Isoniazid (9 months), Rifampin (4 months), and Isoniazid and Rifapentine weekly for 12 weeks for treatment of LTBI in simple, non-medical terms for patients. They include warning signs for drug interactions and medicine schedules for reminders.
	https://apps.state.or.us/cf1/DHSforms/Forms/Served/le8365.pdf			
	https://apps.state.or.us/cf1/DHSforms/Forms/Served/le8363.pdf			
PREVENTION				
BCG Vaccine	http://www.cdc.gov/tb/publications/factsheets/prevention/bcg.pdf	CDC	Fact sheet	Describes the BCG vaccine (not given the in the U.S.) and options for TB testing those vaccinated with BCG.
TB Home Isolation Factsheet	http://www.michigan.gov/documents/mdhhs/MDHHS_Home_Isolation_Factsheet_517302_7.pdf	MDHHS TB Control Unit	Fact sheet	Explains the importance of home isolation for TB patients who are infectious in simple, non-medical terms.
TB Contact Investigations	http://www.health.state.mn.us/divs/idepc/diseases/tb/factsheets/cieng.pdf	Minnesota DOH	Fact sheet	Describes the purpose of contact investigations for TB cases and their contacts.
	http://www.cdc.gov/tb/publications/pamphlets/tb_contact_investigation.pdf	CDC	Pamphlet	Describes the purpose of contact investigations for TB patients and their contacts.
SPECIAL GROUPS				
Foreign Language Resource Sheet	http://www.michigan.gov/documents/mdhhs/19._Foreign_Language_Patient_Information_Resource_List_518825_7.pdf	MDHHS TB Control Unit	Resource sheet	Contains links to several organizations which offer TB patient educational materials in a variety of foreign languages as well as English.
International Travelers	http://www.cdc.gov/tb/publications/factsheets/general/travelinfo.pdf	CDC	Fact sheet	Gives an overview of TB, drug resistant TB, and how to be aware of TB when traveling to high-risk areas.
TB and HIV/AIDS	http://www.cdc.gov/tb/publications/pamphlets/tb-hiveng.pdf	CDC	Pamphlet	Describes basic treatment regimens for drug-susceptible TB disease in persons infected with HIV in simple, non-medical terms.
	http://www.cdc.gov/tb/topic/tbhivcoinfection/tbhiv_video.htm		Video	
	http://www.cdc.gov/tb/publications/factsheets/treatment/treatmenthivpositive.pdf	CDC	Fact sheet	
TB and Pregnancy	http://www.cdc.gov/tb/publications/factsheets/specpop/pregnancy.pdf	CDC	Fact sheet	Gives an overview of TB and pregnancy, including treatment, testing, and breastfeeding.

AIDS, Acquired Immune Deficiency Syndrome; **BCG**, Bacillus Calmette–Guérin vaccine; **CDC**, Centers for Disease Control and Prevention; **DOH**, Department of Health; **HIV**, Human Immunodeficiency Virus; **IGRA**, Interferon-Gamma Release Assay; **LTBI**, latent tuberculosis infection; **MDHHS**, Michigan Department of Health and Human Services; **TB**, tuberculosis; **TST**, tuberculin skin test

Occupational Questionnaire

ANNUAL TB SYMPTOM REVIEW

This form is to be used with employees who have had a previous positive TB test and have already completed a medical evaluation where TB disease was ruled out. This questionnaire and review should be conducted annually. This is for employer use only, and not should not be returned to MDHHS.

First Name: _____ Last Name: _____ DOB: _____

Employee ID/SSN: _____ Department/Supervisor: _____

Previous Positive Test Date: _____ Type of Test: _____

1. Have you ever taken medications as a follow-up to your positive TB test? Y N
   If **YES**, did you complete the entire course of medications? Y N
   Date treatment was completed: _____

2. Date of last chest X-ray: _____ X-ray results: _____

3. In the past year, have you entered a TB isolation room or had occupational exposure to a known case of TB? Y N
   Specify location: _____ Time/date of exposure: _____

4. In the past year, have you lived with or had close contact with someone outside of work who has TB disease? Y N

5. In the past year, have you traveled and/or lived overseas? Y N
   Where: _____ Date(s): _____

6. In the past year, have you worked in or been a resident of a prison or a homeless shelter? Y N

7. In the past year, has a health practitioner told you that your immune system is suppressed or compromised? Y N

Sign and Symptom Review

Unexplained coughing for more than two weeks (unrelated to smoking)	Y	N
Productive cough lasting longer than two weeks	Y	N
Blood in sputum	Y	N
Unexplained weight loss	Y	N
Unexplained fatigue	Y	N
Night sweats	Y	N
Fever not associated with an acute disease	Y	N
Loss of appetite	Y	N
Chest pains	Y	N
Shortness of breath	Y	N

*For any **YES** answers, please give details on back (amount, time periods, etc.)*

Medical Eval Recommended: Y N
Chest X-Ray Recommended: Y N
Nurse's Initials: _____ Date: _____

Notes

Public Health Tools

LATENT TB INFECTION RISK ASSESSMENT

*Use this tool to prioritize asymptomatic **adults** for latent TB infection (LTBI) testing. Re-test persons who previously tested negative, and have **new** risk factors since the last assessment. Treatment of LTBI should begin once **TB disease is ruled out****

RISK FACTOR		Test/Treatment Priority
☐ Past history of chest x-ray with fibrotic changes and no history of TB disease treatment, or other findings suggestive of inactive or old TB	In addition to TB testing, evaluation for active TB disease*	HIGH
☐ HIV infection		
☐ Current or planned immunosuppression	Organ transplant, treatment with TNF-α antagonist, steroids, other immunosuppressive medications	
☐ End-stage renal disease		
☐ History of close contact to someone with infectious TB disease and has medical risk†		
☐ Foreign-born person from a high TB prevalence county‡ and has medical risk†		
☐ Has stayed or worked in an urban homeless shelter and has medical risk†		
☐ History of close contact to someone with infectious TB disease and has NO medical risk†		MEDIUM
☐ Foreign-born person from high TB prevalence county‡ and has NO medical risk†		
☐ Has stayed or worked in an urban homeless shelter and has NO medical risk†		
☐ Traveled to or lived in high TB prevalence country‡ for > 1 month and has medical risk†		
☐ Traveled to or lived in high TB prevalence country‡ for > 1 month and has NO medical risk†		
☐ Healthcare worker or resident/employee of congregate setting	Correctional institution, long-term care facility, drug treatment facility	LOW
☐ No risk factors identified		NONE

†**Medical risks:** Diabetes mellitus, smoker within past one year, leukemia, lymphoma, silicosis, cancer of head or neck, intestinal bypass/gastrectomy, chronic malabsorption, body mass index ≤20.

‡**High TB prevalence country:** Africa, Asia/Pacific, Eastern Europe incl. Russia, Latin America incl. Mexico. Interferon Gamma Release Assay is preferred over Tuberculin Skin Test for foreign-born persons.

*Evaluate for active TB disease with a chest x-ray, symptom screen, and if indicated, sputum AFB smears, cultures and nucleic acid amplification testing. A negative TST or IGRA does not rule out active TB disease.

TB Test Ordered?

☐ **No**

☐ **Yes**, Tuberculin Skin Test Ordered **Date:** _____

☐ **Yes**, Blood test Ordered **Date:** _____

☐ QuantiFERON ☐ T-SPOT

☐ Medical Eval Recommended

☐ Chest X-ray Recommended

Nurse Initials: _____

Date: _____

Public Health Resource Sheet

INFORMATION FOR PHYSICIANS REGARDING DOT FOR ACTIVE TB

DOT is recommended public health practice[1, 2]

Directly Observed Therapy (DOT) involves a trained public health nurse or designate delivering each dose of anti-tuberculosis (TB) medication to the patient, and observing the patient consume each dose. Using DOT ensures timely completion of treatment, prevents further TB transmission, and prevents development of drug resistance. National guidelines recommend DOT as part of the standard of care for TB disease.

DOT ensures adherence and treatment completion

When combined with case management, DOT improves completion of TB treatment, especially for patients who have risk factors associated with poor adherence. Each patient is paired with a DOT worker who visits the patient at their home or other prearranged site. The DOT worker watches the patient consume each dose of the prescribed TB medication. The DOT schedule is followed to ensure the patient receives the entire course and correct dose of medication. Electronic DOT (eDOT) can be an alternative to in-person DOT. In eDOT, the patient and their DOT worker use mobile phones or devices to document the consumption of each dose at the appropriate date and time. Skype is becoming a common method of performing eDOT.

DOT helps your TB patients

Poor adherence to TB treatment is the main reason patients are not cured. Public health departments understand that private sector physicians generally do not have the resources to monitor whether their patients take their medications as prescribed. DOT is available to help ensure patient adherence and makes taking TB medication simpler for patients. DOT may help identify adverse medication reactions early, since a DOT worker sees the patient frequently.

DOT protects public health

Public health professionals are responsible for safeguarding public health and preventing TB transmission. Working with all providers to help ensure that TB patients get the treatment they need and achieve cure is a state and national public health priority.

Considerations for DOT

Always use DOT	Strongly Recommend DOT	
• Intermittent TB treatment regimen • Failing TB therapy • TB drug resistance	Risk Factors for Poor Adherence: • Substance abuse • Homelessness or unstable housing • History of poor adherence with medications and medical management • Poor or non-acceptance of TB diagnosis • Major psychiatric disorder or cognitive problems • Children 0-18 years of age • Frail elderly	Likely to transmit TB to others: • Pulmonary TB with sputum AFB (+) smears at diagnosis • Cavitary pulmonary disease Patients at high risk for severe outcomes: • HIV/AIDS • Immunosuppression • Too ill to self-manage • Previous TB treatment • Slow sputum conversion • Adverse reaction to TB medications

To find out more about DOT for your patients, contact your local public health department using the LHD listing on the back of the Michigan Local Health Jurisdiction Map.

1. Centers for Disease Control and Prevention, Controlling Tuberculosis in the United States: Recommendations from the American Thoracic Society, CDC, and the Infectious Diseases Society of America MMWR 2005: 54(No. RR-12) http://www.cdc.gov/tb/publications/guidelines/Treatment.htm
2. MIACET Guidelines revised 2012 http://www.michigan.gov/tb

Public Health Resource Sheet

TB PROVIDER RESOURCES

TITLE	LOCATION	CREATED BY	RESOURCE TYPE	DESCRIPTION
MICHIGAN-SPECIFIC				
Enforcement Policy and Procedures for Evaluating Occupational Exposure to Tuberculosis, 2013	https://www.michigan.gov/documents/mdch/gishd_com_05_2_193924_7.pdf	MIOSHA	Guidelines	Last updated in November, 2013, this document establishes policies and procedures to ensure uniform enforcement of occupational health regulations when conducting an inspection related to occupational exposures to TB.
Laboratory Testing for Tuberculosis Toolkit	http://www.michigan.gov/documents/mdch/2011_TB_Tool_Kit_358942_7.pdf?20150319172203	MDHHS TB Control Unit	Toolkit	Provides specific guidelines for submission and reporting requirements for TB laboratory diagnostic testing.
Michigan Advisory Committee for the Elimination of Tuberculosis Recommendations and Guidelines, 2012	https://www.michigan.gov/documents/mdch/2012_MIACET_Guidelines_final_399351_7.pdf	MIACET	Guidelines	Provides the latest TB prevention and control strategies and contains a revised set of recommendations and strategies for a statewide coordinated approach to TB prevention, control, and elimination. It is targeted towards private and public health care professionals, and has been prepared by representatives from those groups.
Reporting and Surveillance Requirements, Rule 3	http://www.michigan.gov/mdch/0,4612,7-132-2945_5104_5281_46528_59092-269829--,00.html	MDHHS TB Control Unit	Guidelines	R 325.173, from the Michigan Communicable Disease Rules, provides reporting and surveillance requirements for the state of Michigan.
Submission of TB laboratory Specimens and Lab Results, Rule 9	http://www.michigan.gov/mdch/0,4612,7-132-2945_5104_5281_46528_59092-268589--,00.html	MDHHS TB Control Unit, MDHHS BOL	Guidelines	R 325.179, from the Michigan Communicable Disease Rules, provides requirements for submitting TB lab specimens and test results in the state of Michigan.
Translation and Interpreter Services Resource Sheet	http://www.michigan.gov/documents/mdhhs/18._Translation_Services_Resource_Sheet_518760_7.pdf	MDHHS TB Control Unit	Resource sheet	Adapted from the Michigan Department of State, this is a current list of translators and interpreters available for hire in Michigan.
PREVENTION				
Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Health-Care Settings, 2005	http://www.cdc.gov/mmwr/pdf/rr/rr5417.pdf	CDC	MMWR Guidelines	Provides TB control recommendations based on recent shifts in the epidemiology of TB, advances in scientific understanding, and changes in health-care practice that have occurred in the United States. This document provides guidance to health care professionals regarding TB risk assessment, infection control and respiratory protection.
Tuberculosis Infection Control, A Practical Manual for Preventing TB, 2011	http://www.currytbcenter.ucsf.edu/sites/default/files/ic_book_2011.pdf	Curry International TB Center	Manual	Discusses current infection control standards and practices for clinics, emergency departments and homeless shelters.

TITLE	LOCATION	CREATED BY	RESOURCE TYPE	DESCRIPTION
TESTING & SCREENING				
Annual Occupational TB Questionnaire	http://www.michigan.gov/documents/mdhhs/Annual_Occupational_Screening_Questionnaire_517295_7.pdf	MDHHS TB Control Unit	Form	To be used annually with employees who have had a previous positive TB test and have already completed a medical evaluation where TB disease was ruled out.
Guidelines for the Investigation of Contacts of Persons with Infectious Tuberculosis, 2005	http://www.cdc.gov/mmwr/pdf/rr/rr5415.pdf	CDC	MMWR Guidelines	Information about investigation of TB exposure, transmission, and prevention of future cases of TB through contact investigations. These guidelines are intended for use by public health officials but also are relevant to others who contribute to TB control efforts.
LTBI Risk Assessment Tool	http://www.michigan.gov/documents/mdhhs/7._LTBI_Risk_Assessment_Tool_518846_7.pdf	MDHHS TB Control Unit	Tool	Use this form to identify asymptomatic adults for LTBI testing. Adapted from the California TB Controllers Association.
Updated Guidelines for Using Interferon Gamma Release Assays to Detect *Mycobacterium tuberculosis* Infection, 2010	http://www.cdc.gov/mmwr/pdf/rr/rr5905.pdf	CDC	MMWR Guidelines	Provides guidance to U.S. public health officials, health-care providers, and laboratory workers for use of FDA-approved IGRAs in the diagnosis of *M. tuberculosis* infection in adults and children.
TREATMENT				
Information for Physicians Regarding DOT for Active TB	http://www.michigan.gov/documents/mdch/Information_for_Physicians_Regarding_Directly_Observed_Therapy_394840_7.pdf	MDHHS TB Control Unit	Fact sheet	Describes the importance of DOT, especially for the treatment of active TB. This document is recommended to physicians and public health nurses who use DOT.
Managing Drug Interactions in the Treatment of HIV-Related Tuberculosis, 2013	http://www.cdc.gov/tb/publications/guidelines/tb_hiv_drugs/pdf/tbhiv.pdf	CDC	Publication	Describes the challenges and solutions for co-managing HIV-related TB with respect to adherence, side-effects of anti-tuberculosis and anti-retroviral drugs, immune reconstitution inflammatory syndrome, and drug-drug interactions.
Recommendations for use of an Isoniazid-Rifapentine Regimen with Direct Observation to Treat Latent *Mycobacterium tuberculosis* Infection, 2011	http://www.michigan.gov/documents/mdhhs/CDC_MMWR_Recommendations_for_3HP_LTBI_517298_7.pdf	CDC	Recommendations	Provides recommendations for using a combination INH-RPT regimen for 12 weeks to replace 9 months of INH therapy for the treatment of LTBI.
Recommendations & Weekly Monitoring Worksheet for	http://www.michigan.gov/documents/mdhhs/11._Recommendations__Weekly_Monitoring_Worksheet_518782_7.pdf	MDHHS TB Control Unit	Recommendations	This worksheet provides guidance for local health departments new to the 3HP treatment regimen for LTBI to track dosing and adverse effects monitoring. Providers are

TITLE	LOCATION	CREATED BY	RESOURCE TYPE	DESCRIPTION
Treatment of LTBI with 3HP & DOT		New Mexico Department of Health		encouraged to edit the form for their individual patients; the word document is available upon request at mcguirkh@michigan.gov.
Targeted Tuberculin Testing and Treatment of Latent TB Infection, 2000	http://www.cdc.gov/mmwr/pdf/rr/rr4906.pdf	ATS , CDC	MMWR Guidelines	Provides recommendations for targeted tuberculin testing and treatment regimens for persons with LTBI and updates previously published guidelines with respect to treatment of LTBI with short-course rifampin-based regimens.
Treatment of Tuberculosis, 2003	http://www.cdc.gov/mmwr/pdf/rr/rr5211.pdf	ATS, CDC, IDSA	MMWR Guidelines	Provides recommendations for the treatment of tuberculosis in settings where mycobacterial cultures, drug susceptibility testing, radiographic facilities, and second-line drugs are routinely available.
Tuberculosis Drug Information Guide, 2nd Edition	http://www.currytbcenter.ucsf.edu/products/view/tuberculosis-drug-information-guide-2nd-edition-printed-book?productID=WPT-17A	Curry International TB Center	Book	Updated in December 2012 and features information on 21 medications currently used to treat TB, both in the US and internationally. Guide includes: dosing instructions, preparation and storage, pharmacokinetics, adverse reactions, contraindications, monitoring, wholesales cost and patient instructions.
TRAINING				
Forging Partnerships to Eliminate Tuberculosis, 2007	http://www.cdc.gov/tb/publications/guidestoolkits/forge/default.htm	CDC	Toolkit	Guides users to strengthen TB elimination strategies through partnership.
Self-Study Modules on Tuberculosis	http://www.cdc.gov/tb/education/ssmodules/	CDC, DTBE	Self-study modules	Set of interactive educational modules targeting healthcare professionals, administrators, and students. Topics covered include transmission and pathogenesis, epidemiology, diagnosis, and treatment of TB. Continuing education credits are available for those who successfully complete the modules.
TB Prevention in the HIV-Infected Patient: Screening, Testing, and Treatment of LTBI	http://www.currytbcenter.ucsf.edu/products/tb-prevention-hiv-infected-patient-screening-testing-and-treatment-latent-tb-infection	Curry International TB Center	Online course	Includes slides, audio narration, and interactive questions, provides information on how to screen, test, and treat HIV-infected patients for LTBI. The lessons can be taken separately or in any order. Each lesson is 20 minutes or less in length.
TST Workshop	https://mphi-web.ungerboeck.com/wri/wri_p1_display.aspx?oc=55&cc=TSTPG	MDHHS TB Control Unit, MPHI	Website	This online portal allows you to search and register for local workshops to be certified in administering and reading the tuberculin skin test, by CDC standards.

TITLE	LOCATION	CREATED BY	RESOURCE TYPE	DESCRIPTION
SPECIAL POPULATIONS				
Foreign Language Patient Information Resource Sheet	http://www.michigan.gov/documents/mdhhs/19._Foreign_Language_Patient_Information_Resource_List_518825_7.pdf	MDHHS TB Control Unit	Resource sheet	A list of available resources in 47 different languages designed specifically for populations in which English is not their first language. Resource types include: videos, pamphlets, fact sheets, radio broadcasts, coloring book, and more.
The Health Care of Homeless Persons	http://www.bhchp.org/health-care-homeless-persons	Boston Health Care for the Homeless Program	Manual	Designed for clinicians and shelter staff. Sections cover communicable diseases (including a chapter on TB), major medications, heat-related conditions and cold-related injuries, emerging challenges, management of chronic illnesses, immunizations, food management in shelters and soup kitchens, and fact sheets in English and Spanish for clients.
Preventing & Addressing TB Among People Experiencing Homelessness	http://www.nhchc.org/wp-content/uploads/2014/04/tb_fact_sheet_final.pdf	US Interagency Council on Homelessness	Fact sheet	Provides information for providers about TB in the homeless population.
The Growing Threat of the Double Burden of Diabetes and TB	http://www.worlddiabetesfoundation.org/files/fact-sheet-tb-diabetes	IUATLD WDF	Fact sheet	This fact sheet describes the connection between TB and diabetes with simple TB and diabetes facts and how the two diseases are more often seen together.
The Looming Co-Epidemic of TB-Diabetes: A Call to Action	http://www.theunion.org/what-we-do/publications/technical/english/EMBARGOED-DMTB-REPORT-Oct-22.pdf	IUATLD WDF	Publication	"Diabetes is quietly fueling the spread of tuberculosis (TB)." This joint publication describes the challenges with the co-epidemic and why it is quickly becoming a larger threat to public health. The report also mentions what is lacking in research and evaluation programs.
Unlikely Marriage of Diseases: TB and Diabetes Form a 'Co-Epidemic'	http://www.npr.org/sections/goatsandsoda/2014/10/30/360125323/unlikely-marriage-of-diseases-tb-and-diabetes-form-a-co-epidemic	National Public Radio	Publication	NPR reports on the urgency of the TB-Diabetes co-epidemic; published in October 2014.
ORGANIZATIONS & ONLINE RESOURCES				
American Lung Association	www.lungusa.org	ALA	Website, Organization	Gives answers to commonly asked questions about testing, treatment, and causes of TB infection and TB disease.
American Thoracic Society	www.thoracic.org	ATS	Website, Organization	Has PDF documents on TB issues, including treatment of adults and children, and control and classification of TB in the U.S.
CDC, Division of Tuberculosis Elimination	www.cdc.gov/nchstp/tb/	CDC, DTBE	Website, Organization	Major TB guidelines, TB-related MMWRs, and Surveillance Reports. Online ordering of educational materials, links to

TITLE	LOCATION	CREATED BY	RESOURCE TYPE	DESCRIPTION
				other TB related sites, and answers to frequently asked questions are also available. The website's "What's New" section highlights recent publications, products, reports, and events.
Find TB Resources	www.FindTBResources.org	CDC	Website	Find TB Resources connects you to a worldwide library of online resources, training, and educational materials.
Mayo Clinic Center for Tuberculosis	http://centerfortuberculosis.mayo.edu/	Mayo Clinic Center for TB, CDC	RTMCC	This is one of five national RTMCCs which includes Michigan. The website provides comprehensive resources to prevent, control and treat TB.
National Prevention Information Network, Tuberculosis	https://npin.cdc.gov/disease/tuberculosis	NPIN, CDC	Website	This is an inventory of domestic and international TB education and training materials. It is available as an online searchable database or as a printed document.
Regional Training and Medical Consultation Centers	http://www.cdc.gov/tb/education/rtmc/default.htm	CDC	RTMCC	In 2005 the CDC acknowledged and funded four RTMCCs to cover various geographic regions within the United States. RTMCCs are responsible for developing TB education materials, providing training and technical assistance to increase human resource development for TB Programs, and providing medical consultation.
The International Union Against Tuberculosis and Lung Disease	http://www.iuatld.org/full_picture/en/frameset/frameset.phtml	IUATLD	Website, Organization	This organization is a nonprofit, nongovernmental agency focused on prevention and control of TB and lung disease. Its website provides information about international scientific studies, conferences on lung health, and publications on TB and lung disease.
World Health Organization, Tuberculosis	www.who.int/tb/en/	WHO	Website, Organization	This website features information on the DOT program and contains special news alerts and TB publications.

ATS, American Thoracic Society; **BOL**, Bureau of Laboratories; **CDC**, Centers for Disease Control and Prevention; **DOT**, directly observed therapy; **DTBE**, Division of Tuberculosis Elimination; **FDA**, Federal Drug Administration; **HIV**, Human Immunodeficiency Virus; **IDSA**, Infectious Diseases Society of America; **IGRA**, Interferon-Gamma Release Assay; **INH**, Isoniazid; **IUATLD**, The International Union Against Tuberculosis and Lung Disease; **LTBI**, latent tuberculosis infection; **MIACET**, Michigan Advisory Committee for the Elimination of Tuberculosis; **MDHHS**, Michigan Department of Health and Human Services; **MDR-TB**, multi-drug resistant tuberculosis; **MIOSHA**, Michigan Occupational Safety and Health Administration; **MMWR**, Morbidity and Mortality Weekly Report; **MPHI**, Michigan Public Health Institute; **NPIN**, National Prevention Information Network; **RPT**, Rifapentine; **SNTC**, Southeastern National Tuberculosis Center; **TB**, tuberculosis; **TST**, tuberculin skin test; **WDF**, World Diabetes Foundation; **WHO**, World Health Organization.

Recommendations for Use of an Isoniazid-Rifapentine Regimen with Direct Observation to Treat Latent *Mycobacterium tuberculosis* Infection

Preventing tuberculosis (TB) by treating latent *Mycobacterium tuberculosis* infection (LTBI) is a cornerstone of the U.S. strategy for TB elimination (*1*,*2*). Three randomized controlled trials have shown that a new combination regimen of isoniazid (INH) and rifapentine (RPT) administered weekly for 12 weeks as directly observed therapy (DOT) is as effective for preventing TB as other regimens and is more likely to be completed than the U.S. standard regimen of 9 months of INH daily without DOT (*2*–*5*). This report provides CDC recommendations for using the INH-RPT regimen. The new regimen is recommended as an equal alternative to the 9-month INH regimen for otherwise healthy patients aged ≥12 years who have LTBI and factors that are predictive of TB developing (e.g., recent exposure to contagious TB). The new regimen also can be considered for other categories of patients when it offers practical advantages. Although the INH-RPT regimen was well tolerated in treatment trials, monitoring for adverse effects is recommended. Severe adverse effects should be reported to the Food and Drug Administration (FDA) and CDC.

Background

M. tuberculosis, a bacterium transmitted by airborne droplet nuclei from patients with respiratory forms of the disease, causes TB, a contagious and potentially fatal disease. TB develops in 5%–10% of persons who get infected with *M. tuberculosis*, typically after a latency of 6–18 months, but after decades in some persons. Conditions that impair cellular immunity, especially HIV infection, increase the likelihood of TB developing at any interval after infection. Treatment during latency prevents TB during treatment and afterward (*2*).

INH is the only medication approved by the FDA for TB preventive therapy (i.e., treating LTBI). Regimens of INH monotherapy have been shown to prevent TB in diverse categories of patients, and use of these regimens has been extended based on expert opinion (*2*). However, self-supervised daily INH regimens have completion rates of 60% or less in typical settings, attributable largely to the duration of ≥6 months. Rare but severe liver injuries and the concerns over this risk have reduced acceptance of these regimens (*2*,*6*,*7*). Daily rifampin (RIF) for 4 months for adults and 6 months for children is recommended when the *M. tuberculosis* is presumed to be INH-resistant and RIF-susceptible or when INH is contraindicated or is not tolerated by the patient (*2*).

RPT, like RIF, is a rifamycin-class antibiotic with an FDA-approved indication for TB disease. Its use for treating LTBI is off label. RPT is microbicidal for susceptible *M. tuberculosis*. Its long plasma half-life enables infrequent dosing, which can increase DOT convenience and thus adherence. Most RIF-resistant isolates also are resistant to RPT.

Methods

In April 2011, CDC convened a panel of 23 consultants, each of whom had demonstrated TB-specific expertise in at least one of the following: diagnosis, treatment, prevention, nursing case management, public health programs, surveillance, epidemiology, clinical research, pulmonology, infectious diseases, pediatrics, mycobacteriology, health communication and education, migrant worker health, patient advocacy, and health economics. The panel reviewed findings from all three INH-RPT clinical trials that had been completed (*3*–*5*), interviewed the investigators in charge of the largest trial (*5*), and summarized the discussions of all evidence and opinions.

Each recommendation for use of INH-RPT was listed according to the quality of the evidence. High quality evidence came from randomized clinical trials that included the patient categories for which the recommendation was made. The three clinical trials of the INH-RPT regimen were limited by open-label (i.e., unblinded) design, and one was limited by small numbers of participants (*3*). The other evidence was of lower quality (i.e., indirect or generalized from treatment trials and observational studies of other regimens). Lower quality evidence, CDC expert opinion, and the conclusions of the panel supported other recommendations in these guidelines. Recommendations against the use of INH-RPT (without a reference to quality of evidence) were made for patient categories in which 1) previous experience with treatment of TB or LTBI with any regimen has revealed an increased risk for adverse effects, drug interactions, or low efficacy or 2) studies have not provided adequate evidence of safety or efficacy. Recommendations for precautions and guidance for monitoring treatment were based on the conclusions of the panel, TB epidemiology, methods of the INH-RPT clinical trials, and experience with other regimens for treating LTBI.

Summary of Evidence from Clinical Trials of INH-RPT

A randomized clinical trial in Brazil compared 12 weekly doses of DOT INH-RPT with 2 months of daily, mostly self-supervised RIF and pyrazinamide (RIF-PZA) in tuberculin skin test–reactive household contacts aged ≥18 years (*3*). Enrollment was stopped at 399 participants because of hepatotoxicity in RIF-PZA recipients. Patients were followed ≥2 years after

treatment. TB was diagnosed in three INH-RPT recipients and one RIF-PZA recipient (incidence rate ratio: 2.8 for INH-RPT versus RIF-PZA, 95% confidence interval [CI] = 0.2–26.8).

A randomized clinical trial in South Africa assigned 1,148 human immunodeficiency virus (HIV)-infected tuberculin skin test–reactive participants aged ≥18 years who were not receiving antiretroviral treatment to one of four regimens: once-weekly INH-RPT or twice-weekly INH-RIF, both by DOT for 12 weeks; and daily self-supervised INH, for 6 months or indefinitely (*4*). For all four regimens, the median follow-up duration was approximately 4 years. The incidence rates of TB were 1.4–2.0 per 100 person-years, without significant differences between the four regimens. Treatment completion was greater for the two rifamycin-containing regimens, and grade 3 or 4 adverse effects* were more common for INH taken indefinitely.

A randomized clinical trial in Brazil, Canada, Spain, and the United States compared 12 doses of INH-RPT given as weekly DOT with 9 months of self-supervised daily INH (*5*). The modified intention-to-treat analysis included 7,731 participants aged ≥2 years who had LTBI: 5,466 close contacts, 1,925 patients with tuberculin skin test conversions, 179 participants with radiographic findings of healed pulmonary TB, and 161 HIV-infected participants not taking antiretroviral drugs. Participants were followed until 33 months after enrollment. Completion of INH-RPT was defined as 11 or 12 doses within 16 weeks; doses had to be separated by >72 hours to be counted. The completion rate was 82% (3,362 of 3,986) for INH-RPT and 69% (2,585 of 3,745) for INH (p<0.01). Of 22 TB cases, seven were in INH-RPT recipients, and 15 were in INH recipients (hazard ratio: 0.38 for INH-RPT, CI = 0.15–0.99, adjusted for TB risk factors). One case was caused by RIF-resistant *Mycobacterium bovis*† in an HIV-infected participant who had finished INH-RPT late; two cases were caused by INH-resistant *M. tuberculosis* in INH recipients. Permanent drug discontinuations were more common with INH than INH-RPT (31% versus 18%), as were grade 3 and 4 adverse events§ (3.0% versus 1.6%) (p<0.01 for both). However, permanent drug discontinuations ascribed to adverse effects were more common for INH-RPT (4.9% versus 3.7%, p<0.01), as was discontinuation attributed to possible hypersensitivity (2.9% versus 0.4%, p<0.01); six of 152 possible INH-RPT hypersensitivity reactions included hypotension. Discontinuation because of hepatotoxicity was more common for INH (2.0% versus 0.3%, p<0.01). No deaths were attributed to study medications.

Recommendations

Patients for whom INH-RPT is recommended. The combination regimen of INH and RPT given as 12 weekly DOT doses (Box 1) is recommended as an equal alternative to 9 months of daily self-supervised INH for treating LTBI in otherwise healthy patients aged ≥12 years who have a predictive factor for greater likelihood of TB developing, which includes recent exposure to contagious TB, conversion¶ from negative to positive on an indirect test for infection (i.e., interferon-γ release assay or tuberculin skin test), and radiographic findings of healed pulmonary TB (see Precautions). HIV-infected patients who are otherwise healthy and are not taking antiretroviral medications also are included in this category (see Precautions). (Recommendation based on high quality evidence, as defined in Methods).

Recommendations for using the previous regimens for treating LTBI are unchanged (*2*), and the RIF-PZA regimen is not recommended (*8*). The choice between INH and INH-RPT depends on feasibility of DOT, resources for drug procurement, program operations including patient monitoring, expectance of treatment completion as foreseen from medical and social circumstances of the patient, and preferences of the patient and the prescribing physician.

The broad use of INH monotherapy has relied on extending the findings from randomized clinical trials and long-term observations (*2*). Analogously, weekly INH-RPT can be considered for treating LTBI in patient categories that were not included in treatment trials if the individual patients are unlikely to complete 9 months of daily INH or they are in situations where INH-RPT offers practical advantages, such as correctional settings, clinics for recent immigrants, and homeless shelters. Patients who have underlying illnesses that are associated with TB (e.g., diabetes mellitus) or that might decrease the tolerability of INH-RPT should be considered on a case-by-case basis. (Recommendation based on expert opinion and lower quality evidence, as defined in Methods).

The preferred regimen for children aged 2–11 years is 9 months of daily INH (*2*). The number of children in this age range who have received INH-RPT is insufficient for assessing tolerability and efficacy. However, INH-RPT can be considered on a case-by-case basis when both 1) the circumstances make the completion of 9 months of daily INH unlikely and 2) the likelihood or the hazard of TB is great (e.g., recent *M. tuberculosis* infection in a preschool-aged child).

* Additional information available at http://www.hptn.org/web%20documents/hptn046/ssp/appendices/appendixe-toxicitytables_daids_ae_gradingtable_finaldec2004.pdf.

† *M. bovis* is part of the *M. tuberculosis*-complex and a cause of human TB.

§ Additional information available at http://www.eortc.be/services/doc/ctc/ctcv20_4-30-992.pdf.

¶ Tuberculin skin test conversion is defined by a change from a negative to a positive result and a ≥10 mm increase in induration, within a 2-year interval (*2*). Conversion of interferon-γ release assays is defined by a change from a negative to a positive result.

BOX 1. Dosage for a combination regimen of isoniazid and rifapentine in 12 once-weekly doses under direct observation for treating latent *Mycobacterium tuberculosis* infection.

Isoniazid

15 mg/kg rounded up to the nearest 50 or 100 mg; 900 mg maximum

Rifapentine

10.0–14.0 kg	300 mg
14.1–25.0 kg	450 mg
25.1–32.0 kg	600 mg
32.1–49.9 kg	750 mg
≥50.0 kg	900 mg maximum

Isoniazid (INH) is formulated as 100 mg and 300 mg tablets. Rifapentine (RPT)is formulated as 150 mg tablets packed in blister packs that should be kept sealed until usage. New formulations with larger dosage per tablet and fixed-dose INH-RPT combinations are in development.

Source: Three months of weekly rifapentine and isoniazid for *Mycobacterium tuberculosis* infection (PREVENT TB). Information available at http://clinicaltrials.gov/ct2/show/nct00023452?term=rifapentine&rank=9.

Patients for whom INH-RPT is not recommended. INH-RPT is not recommended for the following patients: children aged <2 years, because the safety and pharmacokinetics of RPT have not been established for them; HIV-infected patients receiving antiretroviral treatment, because the drug interactions have not been studied; pregnant women or women expecting to become pregnant during treatment, because safety in pregnancy is unknown; and patients who have LTBI with presumed INH or RIF resistance.

Precautions

Treating for LTBI when TB is active could result in partial treatment and drug resistance. Some patients who have radiographic findings of presumed old "healed" TB might have active TB, and they should be examined for it before treating LTBI. A 4-drug regimen may be started while mycobacterial culture results are pending (*2*). A similar concern applies for HIV-infected patients, who are more likely than patients who are not HIV infected to have extrapulmonary TB or pulmonary TB with normal findings on the chest radiograph.

RPT reddens secretions, including urine and tears, and can stain contact lenses. Neutropenia and increased serum concentrations of liver enzymes are uncommon adverse effects. For other rifamycins, rare hypersensitivity reactions have been reported, with symptoms such as fever, headache, dizziness, musculoskeletal pain, petechiae, purpura, and pruritus (*9*). One participant in a treatment trial for active TB had thrombocytopenia associated with first RIF and then RPT (10). RPT induces increased metabolism of many medications, particularly those metabolized by cytochrome P450 isoenzyme 3A. RPT should not be used with affected medications having narrow therapeutic ranges (e.g., methadone or warfarin), except with careful monitoring. Women who use any form of hormonal birth control should be advised to add, or switch to, a barrier method.

Because missed doses or altered dosing intervals or amounts could jeopardize efficacy or safety, DOT is recommended. DOT workers should be trained to use a symptom checklist for adverse effects and to report problems to a clinician. At each encounter, patients should be instructed in their preferred language to seek medical attention immediately if they have fever, yellow eyes, dizziness, rash, or aches or >1 day of nausea, vomiting, weakness, abdominal pain, or loss of appetite. INH-RPT should be withheld while the cause of symptoms is being determined. Patients should undergo at least monthly clinical assessment, including inquiries about side effects and a physical examination. Although blood tests are not recommended for everyone, baseline and subsequent tests should be performed for certain patients (Box 2) (*2*,*6*).

Testing and treatment for LTBI should be planned for an optimal risk-benefit ratio (*2*). INH-RPT was well tolerated in treatment trials (*3*–*5*). However, with both INH and RIF-PZA, fatal liver injuries came to attention only after the regimens were widely adopted (*6*–*8*). To monitor adverse effects, CDC has established an LTBI treatment adverse effects surveillance system (*7*). Adverse effects leading to hospital admission or death should be reported to local or state health departments for inclusion in this system (e-mail: ltbidrugevents@cdc.gov). Adverse events or medication errors also should be reported to FDA MedWatch at http://www.fda.gov/medwatch, by submitting a MedWatch Form 3500 (available at http://www.fda.gov/medwatch/safety/FDA-3500_fillable.pdf) or by calling 1-800-FDA-1088.

The American Thoracic Society, Infectious Diseases Society of America, and CDC are revising their joint guidelines for finding and treating LTBI (*2*). Those guidelines are expected to augment these recommendations.

BOX 2. Guidance for early detection and management of adverse effects during treatment of latent *Mycobacterium tuberculosis* infection with a combination regimen of isoniazid (INH) and rifapentine (RPT) in 12 once-weekly doses under direct observation

- Education of patients to seek medical attention upon the first symptom of a possible adverse event.
- Clinical assessment upon the first sign or symptom of a possible adverse event.
- Monthly interview and brief physical examination for the findings of treatment-associated adverse events (e.g., icterus, tenderness of the liver, or rash).
- Baseline hepatic chemistry blood tests (at least aspartate aminotransferase [AST]) for patients with specific conditions:
  - Human immunodeficiency virus infection
  - Liver disorders
  - In the immediate postpartum period (≤3 months after delivery)
  - Regular alcohol usage
- Consideration of a baseline hepatic chemistry blood test for older patients on an individual basis, especially for those taking medications for chronic medical conditions.
- Blood tests at subsequent clinical encounters for patients whose baseline testing is abnormal and for others at risk for liver disease.
- Discontinuance of INH-RPT if a serum aminotransferase concentration is ≥5 times the upper limit of normal even in the absence of symptoms or ≥3 times the upper limit of normal in the presence of symptoms.
- Vigilance for drug hypersensitivity reactions, particularly hypotension or thrombocytopenia.
  - Severe condition (e.g., hypotension requiring intravenous fluid support): discontinuance of INH-RPT; supportive medical care
  - Mild to moderate condition (e.g., dizziness treated with rest or oral fluids): conservative management of constitutional symptoms, clinical and laboratory monitoring, the option for continuing treatment under observation

Reported by

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Public Health Recommendations LTBI TREATMENT: 3HP & DOT

Active tuberculosis (TB) develops in 5-10% of persons who become infected with TB. Conditions that impair immunity, such as HIV infection or diabetes, increase the likelihood of latent TB infection (LTBI) progressing to active TB disease. Preventing active TB with treatment is a cornerstone of the U.S. strategy for TB elimination. The combination regimen of Isoniazid (INH) and Rifapentine (RPT), referred to as 3HP and given as 12 weekly DOT doses, is recommended as an equal alternative to 9 months of daily INH for treating TB infection.

Intended population include individuals diagnosed with LTBI who are:

- 12 years of age or older
- Not pregnant and do not intend to become pregnant in the next four months
- Available for weekly DOT
- Not receiving antiretroviral treatment for HIV infection

CDC Recommendations:[1]

- Educate your patient to seek medical attention upon the first symptom of a possible adverse event.
- Clinical assessment upon the first sign or symptom of a possible adverse event.
- Conduct monthly interview and brief physical examination to finding unnoticed adverse events.
- Baseline hepatic chemistry blood tests, such as alanine aminotransferase (ALT)[2] for patients with specific conditions:
    - HIV
    - Liver disorders
    - Postpartum ($\leq$ 3 months after delivery)
    - Regular alcohol usage
- Consider baseline hepatic chemistry blood test for older patients, especially for those taking medications for chronic conditions.
- Blood tests at subsequent clinical encounters for patients whose baseline testing is abnormal and for others at risk for liver disease.
- Discontinue INH-RPT if serum aminotransferase concentration is $\geq$ 5 times the upper limit of normal, in the absence of symptoms, or $\geq$ 3 times the upper limit of normal in the presence of symptoms.
- Be vigilant for drug hypersensitivity reactions, particularly hypotension or thrombocytopenia.
    - In severe conditions (e.g., hypotension requiring intravenous fluids) you should discontinue INH-RPT.
    - For mild to moderate conditions (e.g., dizziness treated with rest or oral fluids) use conservative management of constitutional symptoms, clinical and laboratory monitoring, and provide the option for continuing treatment under observation.

Other Considerations:

- Women on any form of hormonal contraceptive should be:
    - Advised regarding drug interactions with Rifapentine lowering the effectiveness of hormonal methods and the possibility of contraceptive failure.
    - Advised to add or switch to a barrier or other non-hormonal method during the 3HP treatment regimen.
- Provide client education about LTBI
    - Education should be provided in the client's primary language and at an educational level appropriate to the client.
    - Assure client has an opportunity to ask questions concerning treatment regimen.
    - The following resources can be used when providing education for the client with TB infection:
        i. http://www.michigan.gov/documents/mdhhs/MDHHS_LTBI_Factsheet_517303_7.pdf
        ii. http://www.cdc.gov/tb/publications/pamphlets/12doseltbitreatmentbrochure8.5x11.pdf
        iii. https://apps.state.or.us/cf1/DHSforms/Forms/Served/le8363.pdf
- Use a worksheet or system to help keep track of doses, symptom monitoring, patient education, and bloodwork. An example of a weekly monitoring worksheet is provided below and should be adapted for each individual patient. If you would like a copy of the editable Word document please email mcguirkh@michigan.gov.

ALT, alanine aminotransferase **CDC**, Centers for Disease Control and Prevention; **DOT**, directly observed therapy; **HIV**, human immunodeficiency virus; **INH**, Isoniazid; **LTBI**, latent tuberculosis infection; **RPT**, Rifapentine; **TB**, tuberculosis

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2. Centers for Disease Control and Prevention. Errata: Vol. 60, No. 48. MMWR 2012; 61(No. 04):80.

Name: _____ DOB: _____

Physician: _____

Medication Start Date: _____ Anticipated Stop Date: _____

Date:												
TB symptoms (persistent cough, weight loss, fever, night sweats, etc.):												
ADVERSE DRUG EVENTS												
Loss of appetite (INH/RPT)												
RUQ abdominal discomfort (INH/RPT)												
Unusual/Excessive fatigue (INH/RPT)												
Nausea/Vomiting (INH/RPT)												
Unexplained fever $\geq$ 3 days (INH/RPT)												
Urine color change (dark) (INH/RPT)												
Stool color change (light) (INH/RPT)												
Jaundice (yellow skin/eyes) (INH/RPT)												
Skin rashes/itching (INH/RPT)												
Numbness/tingling in arms/legs (INH)												
Flu-like symptoms (RPT)												
Unusual bleeding/bruising (RPT)												
Change in urine output (RPT)												
EDUCATION												
Stop medication and notify nurse if adverse drug events occur												
Signs/symptoms of TB disease												
Avoiding alcohol use and exposure to other hepatotoxins												
Orange discoloration of body fluids												
Date of LMP: Effect on hormonal contraceptives (RPT)												
Adherence; treatment completion												
MEDICATION DOT												
INH _____ mg												
RPT _____ mg												
DOT provider's initials												
Client's initials												

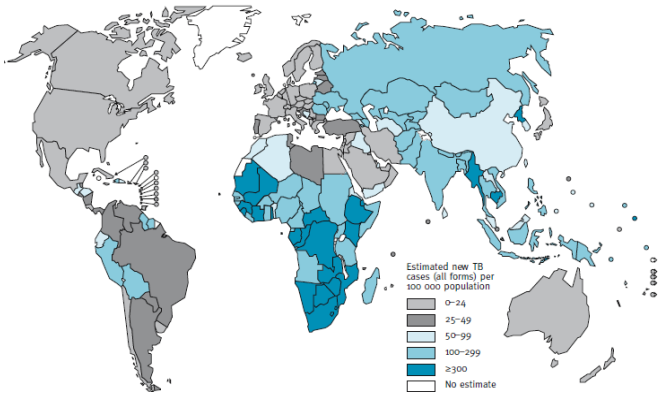
Complete When Closing Case

Total # doses ingested: _____ Total # weeks on therapy: _____ Completed therapy: Yes No

Note: Completion of treatment is defined as: eleven (11) or twelve (12) doses must be given within 16 weeks. Each dose must be separated by > 72 hours

International Union Against Tuberculosis and Lung Disease

WORLD DIABETES FOUNDATION



TUBERCULOSIS & DIABETES

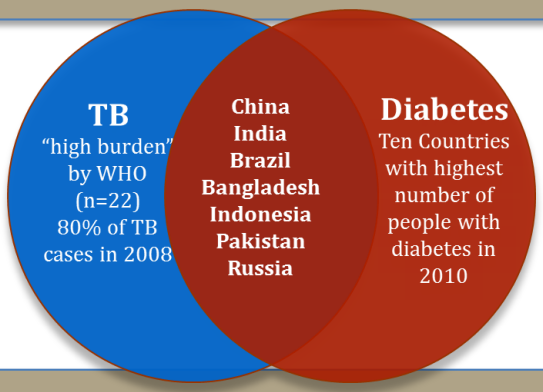
The growing threat of the double burden of diabetes and tuberculosis

The association between tuberculosis (TB) and diabetes mellitus (DM) and their synergetic role in causing human disease and suffering has been recognised for centuries. However, recent evidence has shown that there is a more significant link between diabetes and TB than previously thought:

TUBERCULOSIS FACTS

- In 2012, 8.6 million people fell ill with TB.
- 1.3 million died from TB in 2012.
- 1/3 of the world's population is infected with latent TB.
- Over 95% of TB deaths occur in low- and middle-income countries, and it is among the top three causes of death for women aged 15 to 44.
- People infected with latent TB have a lifelong risk of developing and falling sick with active TB.
- In 2012, an estimated 530 000 children became ill with TB and 74 000 HIV-negative children died of TB.
- An estimated 22 million lives were saved through use of DOTS and the Stop TB Strategy.

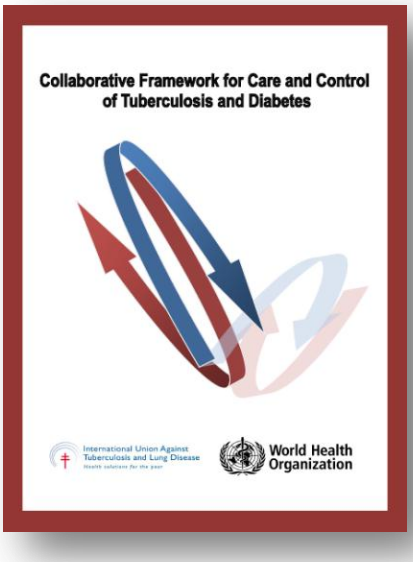
- People with diabetes have a 2-3 times higher risk of developing TB disease compared to people without diabetes.
- People with TB and coexisting diabetes have 4 times higher risk of death during TB treatment and higher risk of TB relapse after treatment.
- People with TB and coexisting diabetes are more likely to be sputum positive and take longer to become sputum negative.
- TB is associated with worsening glycaemic control in people with diabetes.



With the current prediction that the prevalence of DM will increase to close to 552 million by the year 2030, it is most likely that the rise in the number of people with DM may complicate TB care and control and vice versa – especially in many areas where the two diseases coexist.

DIABETES FACTS

- 382 million people were estimated to have diabetes in 2013.
- Global prevalence of diabetes is expected to rise to 592 million by 2030.
- Diabetes caused 5.1 million deaths in 2013.
- 80% of people with diabetes live in low- and middle-income countries.
- The greatest number of people with diabetes are between 40 to 59 years of age.
- 175 million people (48%) with diabetes are undiagnosed.
- The number of people with type 2 diabetes is increasing in every country.



The World Health Organization (WHO), The Union and the World Diabetes Foundation began collaborating on a response to diabetes-associated tuberculosis in 2009. The WHO/Union Collaborative Framework for Care and Control of TB and Diabetes published in 2011 offers a guide to the establishment of programmes aimed at detecting and managing DM in TB patients and vice versa. The WDF played an important role in catalysing the process.

WDF is supporting several grass root projects to address this double burden as well as pilot test the collaborative framework.

About The Union

The mission of the International Union Against Tuberculosis and Lung Disease (The Union) is to bring innovation, expertise, solutions and support to address health challenges in low- and middle-income populations. With nearly 10,000 members and subscribers from 150 countries, The Union has its headquarters in Paris and offices serving the Africa, Asia Pacific, Europe, Latin America, Middle East, North America and South-East Asia regions. Its scientific departments focus on tuberculosis and HIV, lung health and non-communicable diseases, tobacco control and research. Learn more at www.theunion.org.

About the World Diabetes Foundation

The World Diabetes Foundation has to date funded 300 projects in 103 countries with a total project portfolio of USD 273.4 million, of which USD 91.0 million has been donated by the Foundation. The establishment of the World Diabetes Foundation was announced by its founding father, Novo Nordisk A/S, on World Diabetes Day 2001. The Foundation was legally established in February 2002. A donation programme has been allocated by the founding company of a total maximum of DKK 1.1 billion in the period 2001-2017, (USD195 million).

The Foundation is registered as an independent trust and governed by a board of six experts in the field of diabetes care, access to health and development assistance. For further information please visit our website: www.worlddiabetesfoundation.org

The International Union Against Tuberculosis and Lung Disease (The Union) and the World Diabetes Foundation, are calling for greater awareness of this new co-epidemic

TB Evaluation of Immigrants & Refugees

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(ctrl+click on text to go directly to section)

CASE MANAGEMENT

*This guide was adapted from "TB Evaluation of Immigrants and Refugees" document produced by the Kentucky Department of Public Health. That document can be found in the forms and teaching sheets listing of the CCSG at http://chfs.ky.gov/dph/Local+Health+Department.htm.

Evaluation of Immigrants and Refugees for Tuberculosis

The Local Health Department (LHD) Tuberculosis (TB) Coordinator or TB Nurse will assure that immigrants or refugees with TB Classification (Class A, B1, B2 or B3) start an appropriate medical evaluation within 30 days of their arrival in Michigan, and complete the evaluation within 90 days of their arrival in Michigan.

RECEIVING IMMIGRANT/REFUGEE HEALTH ASSESSMENT NOTIFICATIONS:

For LHDs without direct access to the EDN System

* If unsure whether your LHD has direct EDN access, contact MDHHS TB Epidemiologist at 517-373-2084

MDHHS TB Program staff will receive notifications of immigrant and refugee arrivals from EDN and retrieve the EDN documents containing medical and contact information. MDHHS TB Program staff will notify the LHD of immigrant or refugee's arrival by creating a "Refugee Health Assessment" case in the MDSS. All EDN documents will be attached in the "Notes" tab.

For LHDs with direct access to the EDN System

LHD TB Coordinator or TB nurse will receive notifications of immigrant and refugee arrivals from EDN and retrieve the EDN documents containing medical and contact information.

PERFORMING IMMIGRANT/REFUGEE FOLLOW-UP:

LHD TB Coordinator or TB nurse will:

1. Contact the refugee or immigrant within 3 days of receiving the EDN documents, and schedule an appointment for evaluation.
    a. Step 1 – Make a telephone call within 24 hours of receipt of documents.

        *If no phone number available, proceed directly to step 2.

    b. Step 2 – If no response to phone call within 7 working days, send a letter to the home address listed in the EDN documents. *If the only address listed is for a sponsor agency, contact the sponsor agency to verify the patient's address.*
    c. Step 3 – If no response to letter within 10 working days, make a home visit to all Class A and B1, and high-risk B2 and B3 immigrants or refugees. High-risk Class B2 and B3 include all children under 5 years of age and individuals over 5 years of age who are immune-suppressed, malnourished, or have comorbidities such as diabetes or silicosis.
2. Assess the patient as described in the table "TB Follow-up Recommendations for Arrivals with a TB Class Condition."
    a. Assess for signs and symptoms of TB.
    b. MDHHS strongly recommends ordering an interferon gamma release assay for *Mycobacterium tuberculosis* (IGRA) if:

1. The patient is >5 years of age and received a tuberculin skin test (TST) prior to immigration, regardless of the result; OR
2. An IGRA result prior to immigration is not clearly documented in the EDN documents.

c. Obtain a chest x-ray (CXR) if warranted, as described in the table "TB Follow-up Recommendations for Arrivals with a TB Class Condition."

3. If diagnostic work-up is completed by a physician other than your medical director, assure that 1) the assessment is complete and 2) a decision is made whether to treat for LTBI or TB disease.
4. Complete the TB Follow-up Worksheet according to the table "Instructions for Completing the EDN TB Follow-up Worksheet" below, ensuring that all required questions are answered.
5. For LHDs without direct access to EDN:

   - Return completed TB Follow-up Worksheets to the MDHHS TB Program within 90 days by uploading them to the MDSS "Refugee Health Assessment" case.

   For LHDs with direct access to EDN:

   - Submit data from the EDN Follow-up Worksheet to the CDC EDN System.

TB Follow-up Recommendations for Arrivals with a TB Class Condition

Arrival's Class Status	TB Follow-up Recommendations
<u>TB Class A</u> – active TB disease • **Pulmonary TB disease** • **Sputum smear or TB culture positive** • **Requires a waiver for travel (i.e., on treatment and smear negative prior to travel)**	❑ *Contact the MDHHS TB Epidemiologist at 517-373-2084 for guidance.* ❑ Consider this patient to have <u>active TB disease</u> (suspected or confirmed). ❑ Review pre-immigration medical exam and treatment documentation. ❑ Conduct full medical evaluation for TB Disease. Collect sputum for AFB smear and culture if patient is able to produce. Obtain chest x-ray (CXR) and interpret with attention for TB. ❑ Provide HIV counseling, testing, and referral. If HIV test is refused, reoffer HIV testing monthly while on treatment. ❑ Continue or revise treatment regimen based on review of overseas medical information and results from domestic evaluation. Treatment must be provided using directly-observed therapy (DOT). ❑ If diagnosis of TB Disease is confirmed, report it to the MDHHS TB Program by creating a confirmed case in the MDSS within one business day.
<u>TB Class B1</u> – • **Evidence of pulmonary or extrapulmonary TB disease** • **Sputum smear-negative** • **Includes "old healed TB," and previously treated TB** **OR** • **HIV Infection**	❑ Review pre-immigration medical exam and treatment documentation. ❑ Conduct full medical evaluation for TB disease. ❑ If the patient is >5 years of age and does not have an interferon gamma release assay (IGRA) result documented in their overseas medical information, perform an IGRA. If the patient is <5 years of age, perform a TST regardless of BCG history or previous TST result. ❑ If overseas or domestic IGRA or TST is positive and the date of the overseas CXR is more than 6 months prior to the date of the domestic medical evaluation, obtain a new CXR. If the patient has signs or symptoms compatible with TB disease, obtain a new CXR. Contact the MDHHS TB Epidemiologist at 517-373-2084 with any questions. ❑ If the CXR is suspicious for TB, collect 3 sputum specimens at least 8 hours apart for AFB smear and culture. ❑ If TB Disease is diagnosed, report it to the MDHHS TB Program by creating a confirmed case in the MDSS within one business day. Treatment must be provided using DOT. ❑ If LTBI is diagnosed, preventive treatment is strongly recommended. Educate the patient about the benefits of LTBI treatment. ❑ Offer HIV counseling, testing, and referral. If HIV test is refused, reoffer HIV testing monthly while on treatment.

TB Follow-up Recommendations for Arrivals with a TB Class Condition

Arrival's Class Status	TB Follow-up Recommendations
TB Class B2 – LTBI • **(TST ≥10 mm induration)**	❑ Review pre-immigration medical exam and treatment documentation. ❑ Consider this patient to have latent TB infection (LTBI). ❑ Evaluate for signs and symptoms of active TB disease that may have developed since their pre-immigration exam. ❑ If the patient is >5 years of age and does not have an interferon gamma release assay (IGRA) result documented in their overseas medical information, perform an IGRA. If the patient is <5 years of age, perform a TST. If the domestic IGRA is negative and the patient is asymptomatic, they are unlikely to have LTBI. No further evaluation or treatment is recommended. ❑ If overseas or domestic IGRA or TST is positive, obtain a new CXR. If the patient is HIV-positive or has signs or symptoms compatible with TB disease, obtain a new CXR regardless of IGRA or TST result. ❑ Offer HIV counseling, testing, and referral. If HIV test is refused, reoffer HIV testing monthly while on LTBI treatment. ❑ It is the standard of care to recommend treatment to all patients diagnosed with LTBI. *If used, the three-month isoniazid-rifapentine regimen must be delivered using DOT.*
TB Class B3 – TB Contact • **Contact overseas to a confirmed case of TB**	❑ This person is a pre-immigration contact to a confirmed case of active TB. ❑ If the patient is >5 years of age, administer an IGRA. If the patient is <5 years of age, perform a TST. ❑ If the IGRA or TST is positive or if patient has signs/symptoms compatible with TB disease, obtain a CXR and complete evaluation to rule out TB disease.

NOTE:

- Pregnancy is not a medical contraindication for treatment of LTBI or of active TB disease.
- An IGRA is preferred for testing persons who have received BCG.
- A TST is preferred for testing children aged less than 5 years.
- A TST administered prior to 6 months of age may yield a false negative result.

Instructions for Completing the EDN TB Follow-up Worksheet

The TB Follow-up Worksheet is used to document the initial evaluation of an arrival with a TB Class Condition.
A complete evaluation requires a diagnosis and, when indicated, a treatment start date.

<u>Sections A & B</u> **Demographic & Jurisdictional Information**	❑ Pre-populated
<u>Section C</u> • **Date of Initial U.S. Medical Evaluation**	❑ Record the date of the initial evaluation.
• **TST and/or IGRA**	❑ Administer a tuberculin skin test (TST) or draw blood for an IGRA. ❑ Record the TST placement date, mm induration (not redness), and interpretation. – *For persons with TB Class B1 Conditions or TB-related abnormalities on CXR, a TST reading of <u>≥</u>5 mm is considered positive.* ❑ Record the date, brand, and results of IGRA, if used. ❑ Record if there was a history of previous positive TST or IGRA
• **U.S. Review of Pre-Immigration CXR**	❑ Arrivals should bring their pre-immigration CXR film(s) or disk with them to their exam. ❑ If the pre-immigration CXR is not available, mark "No." ❑ If the pre-immigration CXR did not have the patient's name and date of birth, mark "Not Verifiable." ❑ Record <u>your</u> (or your physician's) interpretation of the pre-immigration CXR. ❑ ***Do not copy the overseas panel physician's interpretation of the pre-immigration CXR into the EDN follow-up worksheet.***
• **U.S. Domestic CXR**	❑ Record the interpretation of the CXR ordered by your medical director or your consulting physician. ❑ ***Do not copy the overseas panel physician's interpretation of the pre-immigration CXR into the EDN follow-up worksheet.*** ❑ If your medical director or consulting physician does not perform a CXR, mark "No."
• **Comparison**	❑ Compare the pre-immigration CXR to U.S. CXR and choose one option that best represents your impression of the comparison. ❑ If the pre-immigration CXR is not available, mark "Unknown."

Instructions for Completing the EDN TB Follow-up Worksheet	
The TB Follow-up Worksheet is used to document the initial evaluation of an arrival with a TB Class Condition. **A complete evaluation requires a diagnosis and, when indicated, a treatment start date.**	
• **U.S. Review of Pre-Immigration Treatment**	❑ Record your interpretation of pre-immigration TB treatment based on review of pre-immigration documents and information provided by the patient.
• **U.S. Microscopy/ Bacteriology**	❑ If you or your physician collect specimen(s) for AFB smear and culture, document the specimen type, collection date, and results. ❑ ***Report suspected pulmonary or extrapulmonary TB disease to the MDHHS TB Program within one working day. Do not wait for culture confirmation.***
Section D • **Evaluation Disposition Date**	❑ Record the date when your medical director or consulting physician has **completed** the evaluation, or you have determined that they cannot complete the evaluation for one of the reasons listed.
• **Evaluation Disposition**	❑ If the evaluation was completed, check the box "Completed evaluation". Indicate whether treatment was recommended, and if so for LTBI or TB disease. ❑ If the evaluation was initiated but not completed, check the box "Initiated Evaluation / Not completed." Choose the reasons(s) why evaluation was not completed from the list provided; check all that apply and write or enter other reasons beside "Other, specify." ❑ If the evaluation was never initiated, check the box "Did not initiate evaluation." Choose the reason(s) why evaluation was never initiated from the list provided; check all that apply and write or enter other reasons beside "Other, specify."
• **Diagnosis**	❑ Mark the box corresponding to the CDC diagnostic classification as listed. ❑ *Treatment is inappropriate for diagnoses of Class 0 or 1. The EDN system will create an error message if treatment is recommended for either of these diagnoses.* ❑ If diagnosis is Class 3, mark the site(s) of disease and contact the MDHHS TB Epidemiologist at 517-373-2084 to complete section D4.

Instructions for Completing the EDN TB Follow-up Worksheet

The TB Follow-up Worksheet is used to document the initial evaluation of an arrival with a TB Class Condition.
A complete evaluation requires a diagnosis and, when indicated, a treatment start date.

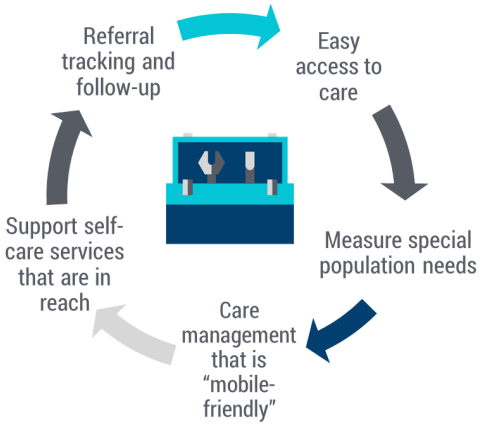
Section E **U.S. Treatment Initiated**	❑ ***Only complete this section if treatment was recommended in question D2.*** ❑ If treatment was initiated, mark "Yes," and for "If Yes," specify for TB disease or LTBI. ❑ ***Treatment must comply with CDC recommendations.*** Patients diagnosed as Class 2 or Class 4 should receive treatment unless contraindicated. Consult the MDHHS TB Program at 517-335-8165 if uncertain which regimen to prescribe. ❑ Treatment for Class 3 should rely on directly-observed therapy (DOT) and be provided through the patient's local health department. ❑ If treatment was not initiated, mark "No," and for "If No, specify the reason," mark the appropriate boxes. Check all that apply and enter other reasons next to "Other (specify)." ❑ ***LHDs without direct EDN access:*** *if treatment was started, contact the MDHHS TB Epidemiologist when treatment is completed or ended. Leave E3-E4 blank until that time.*
• **Treatment Start Date**	❑ ***Only complete this section if treatment was initiated.*** ❑ Specify the date that treatment was started (mm/dd/yyyy).
• **U.S. Treatment Completed**	❑ ***Leave this section blank until treatment has stopped.*** ❑ ***For LHDs without direct EDN access:*** *submit the worksheet to MDSS with this section blank. Submit an updated worksheet, with this section completed, after treatment is completed or ended.* ❑ ***For LHDs with direct EDN access:*** *save the worksheet in EDN, but do not "submit" until treatment has completed or ended.* ❑ Mark the appropriate box to indicate whether treatment was completed or if it is unknown whether treatment was completed. ❑ If treatment was not completed, mark "No," and for "If No, specify the reason," mark the appropriate boxes. Check all that apply and enter other reasons next to "Other (specify)." ❑ If treatment was completed, specify the date next to "Treatment Completion Date:" (mm/dd/yyyy). ❑ If treatment was initiated but not completed, specify the date treatment ended (date patient stopped taking treatment) next to "Treatment End Date:" (mm/dd/yyyy).

Creating a Patient Centered Medical Home for Those on the Move

PATIENT CENTERED MEDICAL HOME

Migrant Clinicians Network promotes medical home transformation designed to include patients who experience barriers to health care due to mobility, poverty, language, and culture.

TOOLS FOR PCMH



CONTACT HEALTH NETWORK

PHONE
800-825-8205 (U.S.)
01-800-681-9508 (from Mexico)

FAX
512-327-6140

www.migrantclinician.org/health-network

MIGRANT CLINICIANS NETWORK
HealthNetwork

Health Network assures continuity of care and treatment completion by providing comprehensive case management, medical records transfer and follow up services for mobile patients.

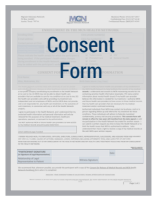
TBNet · Diabetes · Prenatal · Cancer · HIV · Environmental & Occupational Health · General Health

HEALTH NETWORK ENROLLMENT CRITERIA

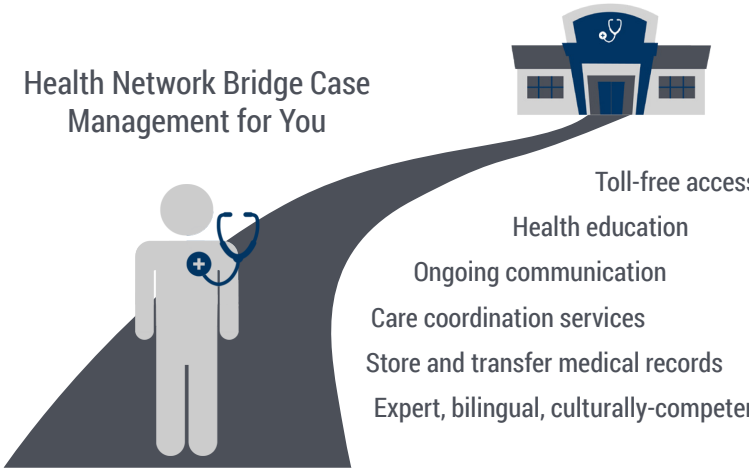
1 PATIENT IS
- » Already mobile, OR
- » Likely to move

2 PATIENT HAS
- » Need of a clinic for follow-up
- » Illness or condition, such as
  - » Active of latent tuberculosis
  - » HIV/AIDs
  - » Hepatitis
  - » Diabetes or pre-diabetes
  - » Hypertension
  - » Cancer, including screening and treatment
  - » Pregnancy, including prenatal and postpartum

HEALTH NETWORK ENROLLMENT FORMS



Health Network Bridge Case Management for You



- Toll-free access
- Health education
- Ongoing communication
- Care coordination services
- Store and transfer medical records
- Expert, bilingual, culturally-competent staff

This project was supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under cooperative agreement number U30CS09742, Technical Assistance to Community and Migrant Health Centers and Homeless for $1,344,709.00 with 0% of the total NCA project financed with non-federal sources. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.

Migrant Clinicians Network
PO Box 164285
Austin, Texas 78716

Migrant Clinicians Network

Business Phone: (512) 327-2017
Confidential Fax: (512) 327-6140
Confidential Phone: (800) 825-8205

ENROLLMENT IN THE MCN HEALTH NETWORK

Enrolling Clinic		Clinic phone number(s)	
E-mail address		Clinic fax number(s)	
Contact person at Clinic			
Security Question #1:	Patient's city of birth?		
Security Question #2:	Patient's father's first name?		
Please indicate the health area(s) for which the participant is being enrolled. If the participant's health status changes during enrollment in the Health Network, additional areas may be added with the participant's verbal consent.	☐ Tuberculosis ☐ Prenatal Care ☐ Cancer ☐ Diabetes	☐ HIV ☐ General Health _____	

CONSENT FOR RELEASE OF MEDICAL INFORMATION

First Name		Last Name(s)	
Alias, Nicknames, Etc		Birth Date (Month / Day / Year)	

The Health Network currently helps with continuity of care for people with infectious chronic illnesses or other healthcare concerns. (i) MCN is a non-profit company coordinating my enrollment in the Health Network at no cost to me; (ii) MCN may not be able to obtain health care providers that are available to care for my condition at no cost to me; (iii) the health care providers who will be providing my treatment are independent and not employees of MCN; and (iv) MCN does not provide, and is not responsible for, any health care treatment, or the outcomes of such treatment, in connection with any or all of the Health Network projects.

I agree to participate in the Health Network, and I understand that my protected health information and personal information will only be released for the purposes of my medical treatment, healthcare operations, payment, or pursuant to my authorization.

I do NOT authorize MCN or future health care providers to have access to my medical records around issue(s) listed here:

(attach additional page if needed)

I agree to notify my future health care providers of my enrollment in the MCN Health Network to help facilitate the transfer of my medical records. I understand and consent to MCN maintaining records for me containing sensitive health information (examples: HIV status and/or information about mental health issues) if my health care provider believes this information is needed for my treatment. I authorize MCN and future health care providers to have access to those medical records that my health care providers feel are necessary for my medical treatment and/or continued screening.

Authorized individuals from MCN may contact me by phone, mail or in person regarding follow up and referral for my treatment for these conditions. These individuals will adhere to federally mandated confidentiality, privacy and security procedures. **This consent form will remain in effect for two years (24 months) from the date signed** or until my participation in the Health Network has ended for another reason. I can submit a written request any time to leave the Health Network or to limit the health issues that MCN is authorized to address. I also understand that I have a right to receive a copy of my medical records on file with MCN upon written request.

I HEREBY RELEASE MCN, ITS EMPLOYEES, OFFICERS, DIRECTORS, CONSULTANTS, REPRESENTATIVES, SUCCESSORS, AND ASSIGNS FROM AND AGAINST ANY AND ALL CLAIMS, CAUSES OF ACTIONS, DAMAGES, LOSSES, EXPENSES (INCLUDING ATTORNEYS' FEES), AND LIABILITIES OF ANY KIND WHATSOEVER ARISING OUT OF MY ENROLLMENT IN THE HEALTH NETWORK AND MY HEALTH CARE TREATMENT RESULTING FROM MY ENROLLMENT IN THE HEALTH NETWORK.

***REQUIRED**

***PARTICIPANT SIGNATURE** **(or Signature of Legal Representative)**		Date	
Relationship of Legal Representative to Patient		Witness Signature	

We recommend that, whenever possible, you provide the participant with a copy of this Consent for Release of Medical Records and MCN Health Network Enrollment form when it is completed.

ENGLISH –THIS CONSENT FORM IS VALID FOR 2 YEARS AFTER DATE OF SIGNATURE

Migrant Clinicians Network
PO Box 164285
Austin, Texas 78716

Migrant Clinicians Network

Business Phone: (512) 327-2017
Confidential Fax: (512) 327-6140
Confidential Phone: (800) 825-8205

PARTICIPANT INFORMATION SHEET | MCN HEALTH NETWORK

***REQUIRED**

First Name		Last Name(s)	
Mother's Maiden Name		Birth Date (Month / Day / Year)	
Place of birth: City		Gender:	☐ Female ☐ Male
Place of birth: State		Marital Status:	☐ Single ☐ Divorced ☐ Other: ☐ Married ☐ Widowed
Place of birth: Country			
Race/Ethnicity:	☐ White – Non-Hispanic/Latino ☐ Black – Non-Hispanic/Latino ☐ Hispanic/Latino ☐ Asian – Non-Hispanic/Latino ☐ Indigenous ☐ Other:		
Language(s) Spoken:	☐ English ☐ Creole ☐ Spanish ☐ Other:	Language you prefer to be contacted in:	
Occupation(s) (from past two years):	☐ Farmworker ☐ Construction ☐ Retired ☐ Homemaker ☐ Factory ☐ Unemployed ☐ Student ☐ Child care ☐ Other:		
Current Residence:	☐ Farmworker Camp Housing ☐ Jail ☐ Homeless ☐ Home ☐ ICE Detention Center ☐ Other:		

CURRENT CONTACT INFORMATION FOR PARTICIPANT:

	Street / P.O Box	City	State	Zip/Country
***PHYSICAL ADDRESS:**				
***MAILING ADDRESS:**				

***PHONE NUMBER** (with Area Code) HOME / CELL / WORK:	Is it ok if we talk to people that answer this phone about your personal health information? *(if you do not check off either box, or you do not initial, your answer will be "No")*	☐ Yes ☐ No	***INITIALS:**

OTHER CONTACT INFORMATION FOR PARTICIPANT (Place you normally move to):

	Street / P.O Box	City	State	Zip/Country
Physical Address:				
Mailing Address:				

***PHONE NUMBER** (with Area Code) HOME / CELL / WORK:	Is it ok if we talk to people that answer this phone about your personal health information? *(if you do not check off either box, or you do not initial, your answer will be "No")*	☐ Yes ☐ No	***INITIALS:**

Additional Contact: Please list someone we can contact if we cannot reach you at either of the locations you provided. In doing this you give MCN permission to contact that family member or friend to assist you in receiving continued health care, which may require discussing your health condition(s) with this individual. You do not have to provide this additional contact information.

First Name		Last Name		Relationship to Participant	
Street / P.O Box		City		State	Zip/Country

***PHONE NUMBER** (with Area Code) HOME / CELL / WORK:	Is it ok if we talk to people that answer this phone about your personal health information? *(if you do not check off either box, or you do not initial, your answer will be "No")*	☐ Yes ☐ No	***INITIALS:**


Michigan Local Health Jurisdictions
KEWEENAW
HOUGHTON
ONTONAGON
Western Upper Penninsula District
GOGEBIC
BARAGA
IRON
Marquette County
Dickinson-Iron District
DICKINSON
Delta-Menominee District
MENOMINEE
DELTA
ALGER
LUCE
Luce-Mackinac-Alger-Schoolcraft District
SCHOOLCRAFT
Chippewa County
MACKINAC
CHARLEVOIX
EMMET
CHEBOYGAN
PRESQUE ISLE
CHARLEVOIX
Northwest Mich. Community Health Agency
District Health Department 4
LEELANAU
ANTRIM
OTSEGO
MONTMORENCY
ALPENA
Benzie-Leelanau
KALKASKA
CRAWFORD
OSCODA
ALCONA
Grand Traverse County
BENZIE
District Health Department 2
MANISTEE
WEXFORD
MISSAUKEE
ROSCOMMON
OGEMAW
IOSCO
District Health Department 10
OSCEOLA
CLARE
GLADWIN
ARENAC
Huron County
MASON
LAKE
Central Michigan District
Midland County
Bay County
Tuscola County
Sanilac County
OCEANA
MECOSTA
ISABELLA
NEWAYGO
MONTCALM
GRATIOT
Saginaw County
Muskegon County
Kent County
Mid-Michigan District
Genesee County
Lapeer County
St. Clair County
Ottawa County
Ionia County
Shiawassee County
CLINTON
Oakland County
Macomb County
Allegan County
Barry-Eaton District
Ingham County
Livingston County
BARRY
EATON
VAN BUREN
Calhoun County
Jackson County
Washtenaw County
Wayne County
City of Detroit
Van Buren-Cass District
Kalamazoo County
Berrien County
CASS
ST. JOSEPH
BRANCH
Branch-Hillsdale-St. Joseph Community Health Agency
HILLSDALE
Lenawee County
Monroe County
Jurisdictions
Local Health Jurisdiction
COUNTY BOUNDARY
Mar 2016
MDHHS
Michigan Department of Health & Human Services

DIRECTORY OF MICHIGAN HEALTH DEPARTMENTS

In general, health care providers should seek consultation regarding communicable disease prevention and control services through their local health department.

COUNTY	HEALTH DEPT.	CO. OFFICE	AREA	PHONE	FAX	COUNTY	HEALTH DEPT.	CO. OFFICE	AREA	PHONE	FAX
Alcona	District 2	Harrisvile	989	724-6757	343-1894	Lake	District 10	Baldwin	231	745-4663	745-2501
Alger	LMAS DHD	Munising	906	387-2297	387-2224	Lapeer	Lapeer County	Lapeer	810	667-0448	667-0232
Allegan	Allegan County	Allegan	269	673-5411	673-2163	Leelanau	Benzie-Leelanau DHD	Lake Leelanau	231	256-0200	256-7399
Alpena	District 4	Alpena	989	356-4507	356-3529	Lenawee	Lenawee County	Adrian	517	264-5243	264-0790
Antrim	Health Dept. of NW MI	Bellaire	231	533-8670	547-6238	Livingston	Livingston County	Howell	517	552-6882	545-9685
Arenac	Cent MI DHD	Standish	989	846-6541	846-0431	Luce	LMAS DHD	Newberry	906	293-5107	293-5724
Baraga	Western UP Dist	L'Anse	906	524-6142	524-6144	Mackinac	LMAS DHD	St. Ignace	906	643-1100	643-0239
Barry	Barry-Eaton DHD	Hastings	269	798-4152	517-541-2666	Macomb	Macomb County	Mt. Clemens	586	783-8190	493-0075
Bay	Bay County	Bay City	989	895-2039	895-2083	Manistee	District 10	Manistee	231	723-3595	723-0150
Benzie	Benzie-Leelanau DHD	Benzonia	231	882-4409	882-0143	Marquette	Marquette County	Negaunee	906	475-7844	475-4435
Berrien	Berrien County	Benton Harbor	269	926-7121	926-8129	Mason	District 10	Ludington	231	845-7381	845-9374
Branch	Branch/Hills/St Jo	Coldwater	517	279-9561x0105	278-2923	Mecosta	District 10	Big Rapids	231	592-0130	592-9464
Calhoun	Calhoun County	Battle Creek	269	969-6370	969-6488	Menominee	Delta-Men Dist	Menominee	906	863-4451	863-7142
Cass	Van Buren-Cass DHD	Dowagiac	269	782-0064	782-0121	Midland	Midland County	Midland	989	832-6666	837-6524
Charlevoix	Health Dept. of NW MI	Charlevoix	231	547-6523	547-6238	Missaukee	District 10	Lake City	231	839-7167	839-7908
Cheboygan	District 4	Cheboygan	231	627-8850	989-356-3529	Monroe	Monroe County	Monroe	734	240-7832	240-7838
Chippewa	Chippewa County	Sault Ste. Marie	906	635-1566	635-7081	Montcalm	Mid-MI DHD	Stanton	989	831-3615	831-3666
Clare	Cent MI DHD	Harrison	989	539-6731	539-4449	Montmorency	District 4	Atlanta	989	785-4428	356-3529
Clinton	Mid-MI DHD	St. Johns	989	227-3111	227-3126	Muskegon	Muskegon County	Muskegon	231	724-4723	724-1325
Crawford	District 10	Grayling	989	348-7800	348-5346	Newaygo	District 10	White Cloud	231	689-7300	689-5295
Delta	Delta-Men Dist	Escanaba	906	786-4111	786-1962	Oakland	Oakland County	Pontiac	248	858-1286	858-0178
Dickinson	Dick-Iron Dist	Kingsford	906	774-1868	779-7232	Oceana	District 10	Hart	231	873-2193	873-4366
Eaton	Barry-Eaton DHD	Charlotte	517	541-2641	541-2666	Ogemaw	District 2	West Branch	989	345-5020	343-1899
Emmet	Health Dept. of NW MI	Petoskey	231	347-6014	547-6238	Ontonagon	Western UP Dist	Ontonagon	906	884-4485	884-2358
Genesee	Genesee County	Flint	810	257-1017	257-3247	Osceola	Cent MI DHD	Reed City	231	832-5532	832-1020
Gladwin	Cent MI DHD	Gladwin	989	426-9431	426-6952	Oscoda	District 2	Mio	989	826-3970	343-1895
Gogebic	Western UP Dist	Bessemer	906	667-0200	667-0020	Otsego	Health Dept. of NW MI	Gaylord	989	732-1794	231-547-6238
Gd. Traverse	Grand Traverse Co	Traverse City	231	995-6100	995-6126	Ottawa	Ottawa County	Holland	616	396-5266	393-5767
Gratiot	Mid-MI DHD	Ithaca	989	875-1019	875-1032	Presque Isle	District 4	Rogers City	989	734-4723	356-3529
Hillsdale	Branch/Hills/St Jo	Hillsdale	517	437-7395x0307	437-0166	Roscommon	Cent MI DHD	Prudenville	989	366-9166	366-8921
Houghton	Western UP Dist	Hancock	906	482-7382	482-9410	Saginaw	Saginaw County	Saginaw	989	758-3887	758-3888
Huron	Huron County	Bad Axe	989	269-9721	269-4181	St. Clair	St. Clair County	Port Huron	810	987-5300	985-4340
Ingham	Ingham County	Lansing	517	887-4308	887-4379	St. Joseph	Branch/Hills/St Jo	Three Rivers	269	273-2161x0241	273-2452
Ionia	Ionia County	Ionia	616	527-5341	527-8208	Sanilac	Sanilac County	Sandusky	810	648-4098x162	648-5276
Iosco	District 2	Tawas City	989	362-6183	362-5211	Schoolcraft	LMAS DHD	Manistique	906	341-6951	341-5230
Iron	Dick-Iron Dist	Iron River	906	265-9913	265-4174	Shiawassee	Shiawassee County	Corunna	989	743-2355	743-2362
Isabella	Cent MI DHD	Mt. Pleasant	989	773-5921	773-4319	Tuscola	Tuscola County	Caro	989	673-8114	673-7490
Jackson	Jackson County	Jackson	517	788-4420	788-4373	Van Buren	Van Buren-Cass DHD	Hartford	269	621-3143	621-2725
Kalamazoo	Kalamazoo County	Kalamazoo	269	373-5267	373-5060	Washtenaw	Washtenaw County	Ypsilanti	734	544-6700	544-6706
Kalkaska	District 10	Kalkaska	231	258-8669	258-2805	Wayne (out-Wayne)	Wayne County	Wayne	734	727-7078	313-967-3044
Kent	Kent County	Grand Rapids	616	632-7228	632-7085	Detroit	Detroit City	Detroit	313	456-3347	456-4427
Keweenaw	Western UP Dist	Hancock	906	482-7382	482-9410	Wexford	District 10	Cadillac	231	775-9942	775-4127

STATE OF MICHIGAN CONTACTS

Immunization Division
Ph: 517-335-8159
Fax: 517-335-9855

Communicable Disease Division
Ph: 517-335-8165
Fax: 517-335-8263

Bureau of Laboratories
Ph: 517-335-8063
Fax: 517-335-9631

2016 REPORTABLE DISEASES IN MICHIGAN – BY CONDITION

A Guide for Physicians, Health Care Providers and Laboratories

Report the following conditions to the Michigan Disease Surveillance System (MDSS) or local health department (see reverse) within 24 hours (unless otherwise noted) if the agent is identified by clinical or laboratory diagnosis.

Report the unusual occurrence, outbreak or epidemic of any disease or condition, including healthcare-associated infections.

Anaplasmosis (Anaplasma phagocytophilum)
Anthrax **(Bacillus anthracis)** (4)
Arboviral encephalitides, neuro- and non-neuroinvasive:
  Chikungunya, Eastern Equine, Jamestown Canyon, La Crosse, Powassan, St. Louis, Western Equine, West Nile, Zika
Babesiosis (Babesia microti)
Blastomycosis (Blastomyces dermatitidis)
Botulism **(Clostridium botulinum)** (4)
Brucellosis (Brucella species) (4)
Campylobacteriosis (Campylobacter species)
Chancroid (Haemophilus ducreyi)
Chickenpox / Varicella (Varicella virus) (6)
Chlamydial infections (including trachoma, genital infections, LGV) (Chlamydia trachomatis) (3)(6)
Cholera (Vibrio cholera) (4)
Coccidioidomycosis (Coccidioides immitis)
Cryptosporidiosis (Cryptosporidium species)
Cyclosporiasis (Cyclospora species)
Dengue Fever (Dengue virus)
Diphtheria (Corynebacterium diphtheriae) (5)
Ehrlichiosis (Ehrlichia species)
Encephalitis, viral or unspecified
Escherichia coli, O157:H7 and all other Shiga toxin positive serotypes (5)
Giardiasis (Giardia species)
Glanders (Burkholderia mallei) (4)
Gonorrhea (Neisseria gonorrhoeae) (3)(6)
Guillain-Barre Syndrome (1)
Haemophilus influenzae, sterile sites only; submit isolates for serotyping for patients < 15 years of age (5)
Hantavirus
Hemolytic Uremic Syndrome (HUS)
Hemorrhagic Fever Viruses (4)
Hepatitis, viral:
  Hepatitis A virus (Anti-HAV IgM)
  Hepatitis B virus (HBsAg, HBeAg, anti-HBc IgM, HBV NAAT, HBV genotype; report all HBsAg and anti-HBs (positive, negative, indeterminate) for children ≤ 5 years of age by 2017) (6)
  Hepatitis C virus (Anti-HCV, HCV NAAT, HCV genotype) (6)
  Hepatitis D virus (HDsAg, anti-HDV IgM)
  Hepatitis E virus (Anti-HEV IgM)
Histoplasmosis (Histoplasma capsulatum)
HIV (tests including reactive immunoassays (e.g., WB, EIA, IA), detection tests (e.g., VL, NAAT, p24, genotypes), CD4 counts/ percents, and all tests related to perinatal exposures) (2)(4)(6)
Influenza virus (weekly aggregate counts)
  Pediatric mortality, report individual cases
  Novel influenza viruses, report individual cases (5)(6)
Kawasaki Disease (1)
Legionellosis (Legionella species) (5)
Leprosy or Hansen's Disease (Mycobacterium leprae)
Leptospirosis (Leptospira species)
Listeriosis (Listeria monocytogenes) (5)(6)
Lyme Disease (Borrelia burgdorferi)
Malaria (Plasmodium species)
Measles (Measles/Rubeola virus)
Melioidosis (Burkholderia pseudomallei) (4)
Meningitis: bacterial, viral, fungal, and parasitic
Meningococcal Disease (Neisseria meningitidis, sterile sites) (5)
Middle East Respiratory Syndrome (MERS-CoV) (5)
Mumps (Mumps virus)
Orthopox viruses **(including Smallpox, Monkeypox)** (4)
Pertussis (Bordetella pertussis)
Plague **(Yersinia pestis)** (4)
Polio (Poliovirus)
Prion disease (including CJD)
Psittacosis (Chlamydophila psittaci)
Q Fever (Coxiella burnetii) (4)
Rabies (Rabies virus)
Rheumatic fever (1)
Rubella (Rubella virus) (6)
Salmonellosis (Salmonella species) (5)
Severe Acute Respiratory Syndrome (SARS) (5)
Shigellosis (Shigella species) (5)
Spotted Fever and Typhus Group (Rickettsia species)
Staphylococcus aureus (MRSA), outbreaks only
Staphylococcus aureus, vancomycin intermediate/ resistant (VISA (5)/VRSA (4))
Streptococcus pneumoniae, sterile sites
Streptococcus pyogenes, group A, sterile sites, including Streptococcal Toxic Shock Syndrome (STSS)
Syphilis (Treponema pallidum) (6)
Tetanus (Clostridium tetani)
Toxic Shock Syndrome (non-streptococcal) (1)
Trichinellosis (Trichinella spiralis)
Tuberculosis (Mycobacterium tuberculosis complex); report all preliminary and final TB NAAT, TB genetic probe, chromatographic or other rapid test results (5)
Tularemia **(Francisella tularensis)** (4)
Typhoid Fever (Salmonella typhi) (5)
Vibriosis (Non-cholera species) (5)
Yellow Fever (Yellow Fever virus)
Yersiniosis (Yersinia enterocolitica)

LEGEND

(1) Reporting within 3 days is required.
(2) Reporting within 7 days is required.
(3) Sexually transmitted infections for which expedited partner therapy is authorized. See www.michigan.gov/hivstd for details.
(4) A laboratory shall immediately submit **suspect or confirmed** isolates, subcultures, or specimens from the patient being tested to the MDHHS Lansing laboratory.
(5) Isolate requested. If not available from non-culture based testing, the positive broth and/or stool in transport medium must be submitted to the MDHHS Lansing laboratory.
(6) Report pregnancy status, if available.
Blue Bold Text = Category A bioterrorism agent, notify the MDHHS Laboratory immediately: (517) 335-8063

This reporting is expressly allowed under HIPAA and required by Michigan Public Act 368 of 1978, 333.5111

MDHHS maintains, reviews, and revises this list at least annually, for the most recent version please refer to: www.michigan.gov/cdinfo
Michigan Department of Health and Human Services • Bureau of Laboratories • Bureau of Disease Control, Prevention, and Epidemiology REV. 01/16

2016 REPORTABLE DISEASES IN MICHIGAN – BY PATHOGEN

A Guide for Physicians, Health Care Providers and Laboratories

Report the following conditions to the Michigan Disease Surveillance System (MDSS) or local health department (see reverse) within 24 hours (unless otherwise noted) if the agent is identified by clinical or laboratory diagnosis.

Report the unusual occurrence, outbreak or epidemic of any disease or condition, including healthcare-associated infections.

Anaplasma phagocytophilum (**Anaplasmosis**)
Arboviral encephalitides, neuro- and non-neuroinvasive:
Chikungunya, Eastern Equine, Jamestown Canyon, La Crosse, Powassan, St. Louis, Western Equine, West Nile, Zika
Babesia microti (**Babesiosis**)
Bacillus anthracis (**Anthrax**) (4)
Blastomyces dermatitidis (**Blastomycosis**)
Bordetella pertussis (**Pertussis**)
Borrelia burgdorferi (**Lyme Disease**)
Brucella species (**Brucellosis**) (4)
Burkholderia mallei (**Glanders**) (4)
Burkholderia pseudomallei (**Melioidosis**) (4)
Campylobacter species (**Campylobacteriosis**)
Chlamydia trachomatis (**Trachoma**, **Genital infections**, **LGV**) (3)(6)
Chlamydophila psittaci (**Psittacosis**)
Clostridium botulinum (**Botulism**) (4)
Clostridium tetani (**Tetanus**)
Coccidioides immitis (**Coccidioidomycosis**)
Coronavirus (**SARS, MERS-CoV**) (5)
Corynebacterium diphtheriae (**Diphtheria**) (5)
Coxiella burnetii (**Q Fever**)
Cryptosporidium species (**Cryptosporidiosis**)
Cyclospora species (**Cyclosporiasis**)
Dengue virus **(Dengue Fever)**
Ehrlichia species (**Ehrlichiosis**)
Encephalitis, viral or unspecified
Escherichia coli, O157:H7 and all other Shiga toxin positive serotypes (including HUS) (5)(6)
Francisella tularensis (**Tularemia**) (4)
Giardia species (**Giardiasis**)
Guillain-Barre Syndrome (1)
Haemophilus ducreyi (**Chancroid**)
Haemophilus influenzae, sterile sites only; submit isolates for serotyping for patients <15 years of age (5)
Hantavirus
Hemorrhagic Fever Viruses (4)
Hepatitis, viral:
Hepatitis A virus (Anti-HAV IgM)
Hepatitis B virus (HBsAg, HBeAg, anti-HBc IgM, HBV NAAT, HBV genotype; report all HBsAg and anti-HBs (positive, negative, indeterminate) for children ≤ 5 years of age by 2017) (6)
Hepatitis C virus (Anti-HCV, HCV RNA nucleic acid tests (PCR), HCV genotype) (6)
Hepatitis D virus (HDsAg, anti-HDV IgM)
Hepatitis E virus (Anti-HEV IgM)
Histoplasma capsulatum (**Histoplasmosis**)
HIV (tests including: reactive immunoassays (e.g., WB, EIA, IA), detection tests (e.g., VL, NAAT, p24, genotypes), CD4 counts/ percents; and all tests related to perinatal exposures) (2)(4)(6)
Influenza virus (weekly aggregate counts)
Pediatric mortality, report individual cases
Novel influenza viruses, report individual cases (5)(6)
Kawasaki Disease (1)
Legionella species (**Legionellosis**) (5)
Leptospira species (**Leptospirosis**)
Listeria monocytogenes (**Listeriosis**) (5)(6)
Measles virus (**Measles/Rubeola**)
Meningitis: bacterial, viral, fungal, and parasitic
Mumps virus
Mycobacterium leprae (**Leprosy or Hansen's Disease**)
Mycobacterium tuberculosis complex **(Tuberculosis)**; report all preliminary and final TB NAAT, TB genetic probe, chromatographic or other rapid test results (5)
Neisseria gonorrhoeae (**Gonorrhea**) (3)(6)
Neisseria meningitidis, sterile sites (**Meningococcal Disease**) (5)
Orthopox viruses (**including Smallpox, Monkeypox**) (4)
Plasmodium species (**Malaria**)
Poliovirus
Prion disease (**including CJD**)
Rabies virus
Rheumatic fever (1)
Rickettsia species (**Spotted Fever and Typhus Group**)
Rubella virus (6)
Salmonella species (**Salmonellosis**) (5)
Salmonella typhi (**Typhoid Fever**) (5)
Shigella species (**Shigellosis**) (5)
Staphylococcus aureus (**MRSA**), outbreaks only
Staphylococcus aureus Toxic Shock Syndrome (1)
Staphylococcus aureus, vancomycin intermediate/ resistant (**VISA** (5)**/VRSA** (4))
Streptococcus pneumoniae, sterile sites
Streptococcus pyogenes, group A, sterile sites, including Streptococcal Toxic Shock Syndrome (STSS)
Treponema pallidum (**Syphilis**) (6)
Trichinella spiralis (**Trichinellosis**)
Varicella-zoster virus (**Chickenpox**) (6)
Vibrio cholera (**Cholera**) (4)
Vibriosis (Non-cholera species) (5)
Yellow fever virus
Yersinia enterocolitica (**Yersiniosis**)
Yersinia pestis (**Plague**) (4)

LEGEND

(1) Reporting within 3 days is required.
(2) Reporting within 7 days is required.
(3) Sexually transmitted infections for which expedited partner therapy is authorized. See www.michigan.gov/hivstd for details.
(4) A laboratory shall immediately submit **suspect or confirmed** isolates, subcultures, or specimens from the patient being tested to the MDHHS Lansing laboratory.
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Public Health Resource Sheet

TRANSLATION AND INTERPRETER SERVICES IN MICHIGAN

Many different organizations provide language services that include translating written documents, interpreting speech, or both. There may be a fee for these services. While large hospitals are often able to provide an interpreter for the most common foreign languages, sometimes it is difficult to locate these resources. This directory has been compiled as an aid to professionals who may need to locate an interpreter to help meet a family's needs, and listing here does not constitute an endorsement by the Michigan Department of Health and Human Service. Additional services may be identified in local telephone books or through colleges and universities.

	Any Language	Albanian	Arabic	Bantu Chizigua	Bosnian (Serbo-Croatian)	Brazilian	Burmese	Burundi	Chaldean	Chinese	Creole	Croatian	Czech	Dutch	Farsi	Filipino	Finnish	French	German	Hebrew	Greek	Hindi	Hungarian	Italian	Japanese	Korean	Lithuanian	Macedonian	Mandarin	Moldavian	Nigerian	Persian	Pashto	Polish	Portuguese	Punjabi	Romanian	Russian	Slovak	Somali	Spanish	Swahili	Taiwanese	Thai	Turkish	Ukrainian	Urdu	Vietnamese
ADRIAN																																																	
Catholic Charities of Lenawee (517) 263-4681																																									X								
ANN ARBOR																																																
AA Translations (734) 665-7295	X																																															
Access INTL Language Institute (734) 994-1456	X																																															
Babel Latina Inc. Language SVC (734) 995-0373	X																																															
Comisal, LLC (734) 971-0805																																										X								
Forefront Corporation (248) 705-2605														X				X	X																															
Lingua Science (734) 930-1553																									X																								
Olas Translations (734) 213-5396																																										X								
Servicios Diversos, LLC (734) 973-9824																		X	X					X												X			X			X			X				
University Translators SVC LLC	X																																															

	Any Language	Albanian	Arabic	Bantu Chizigua	Bosnian (Serbo-Croatian)	Brazilian	Burmese	Burundi	Chaldean	Chinese	Creole	Croatian	Czech	Dutch	Farsi	Filipino	Finnish	French	German	Hebrew	Greek	Hindi	Hungarian	Italian	Japanese	Korean	Lithuanian	Macedonian	Mandarin	Moldavian	Nigerian	Persian	Pashto	Polish	Portuguese	Punjabi	Romanian	Russian	Slovak	Somali	Spanish	Swahili	Taiwanese	Thai	Turkish	Ukrainian	Urdu	Vietnamese
(734) 665-7295																																																
Washtenaw Com College (734) 973-3300																		X	X																							X								
AUBURN HILLS																																																
Bi-Lingual Communications (248) 364-4178																																										X								
German Com (248) 377-4306																			X																															
BELLEVILLE																																																
J & S Translations (734) 796-0310																																											X								
BERRIEN SPRINGS																																																
Andrews University (269) 471-3181																		X	X																							X								
BIG RAPIDS																																																
Ferris State University (231) 591-3988																		X	X																							X								
BROWNSTOWN TOWNSHIP																																																
Translation Consultants (734) 783-0633																																						X											
CLINTON TOWNSHIP																																																
Amine Translation SVC, LLC (586) 792-3884			X																																													
COLDWATER																																																
Rojas Translating SVC (517) 278-4038																																											X								
DEARBORN																																																
American Interpreters & Research SVC (313) 247-8576			X							X								X	X					X	X															X								
Atlantic Translations (313) 520-3030		X																X	X		X			X				X								X				X				X			

	Any Language	Albanian	Arabic	Bantu Chizigua	Bosnian (Serbo-Croatian)	Brazilian	Burmese	Burundi	Chaldean	Chinese	Creole	Croatian	Czech	Dutch	Farsi	Filipino	Finnish	French	German	Hebrew	Greek	Hindi	Hungarian	Italian	Japanese	Korean	Lithuanian	Macedonian	Mandarin	Moldavian	Nigerian	Persian	Pashto	Polish	Portuguese	Punjabi	Romanian	Russian	Slovak	Somali	Spanish	Swahili	Taiwanese	Thai	Turkish	Ukrainian	Urdu	Vietnamese
INTL Translation SVC (313) 563-7850					X							X																X																			
Rainbow Visa and Passport SVC (313) 582-3322			X						X									X																														
Salman Translation & Immigration (313) 333-2421			X															X	X																														
United INTL SVC 1 Inc. (313) 846-6903			X												X			X																								X						X	
World of Imm/Passport/Visas Translation SVC (313) 406-5747	X																																														
DETROIT																																															
Ace Notary and Tax SVC (313) 841-8883																																									X							
Acumen Capital Associates, Inc. (313) 506-2339	X																																														
Annaseeha Consultants (313) 923-2905			X																																					X							
Boloms Globalnet, Inc. (313) 341-4777			X															X	X					X											X						X							
Kan Group (313) 566-0546	X																																														
Interpress, Inc. (313) 365-4547		X	X		X								X					X	X					X	X	X		X					X					X	X		X	X			X		
LaOficina (313) 554-0060			X															X	X																X						X							
SCT Translation SVC (313) 841-4411																																									X							
Wayne County Community College (313) 943-4000			X																																					X							
EAU CLAIRE																																															
Amigos en Accion (269) 461-																																									X							

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4181																																																
FERNDALE																																																
J Bergasse Co Inc (248) 398-2532						X																													X													
Latin Interpreter SVC, LLC (888) 512-6767			X						X						X																						X			X							
FLINT																																															
Baker College (810) 766-4160																																											X				
Hispanic Tech Community Center (810) 424-3760																																										X						
INTL Institute (810) 767-0720	X																																														
Rashmawi Translation SVC (810) 732-5955			X																																													
GRAND RAPIDS																																															
A+ Spanish Translations (616) 742-0805																																											X				
CALL Immigration SVC (616) 452-2433					X													X						X														X			X						X
Catholic Human Development Outreach (616) 248-3030					X													X																								X						X
Encouraging Words INTL (616) 363-5993					X					X			X					X	X					X																		X					X	X
Espanol Translations (616) 451-6777																																											X						
Hispanic Center of Western Michigan (616) 742-0200																																											X						
Languages INTL (616) 285-0005	X																																															
Moore Interpreter, Inc. (616) 247-4810											X																																X						X

	Any Language	Albanian	Arabic	Bantu Chizigua	Bosnian (Serbo-Croatian)	Brazilian	Burmese	Burundi	Chaldean	Chinese	Creole	Croatian	Czech	Dutch	Farsi	Filipino	Finnish	French	German	Hebrew	Greek	Hindi	Hungarian	Italian	Japanese	Korean	Lithuanian	Macedonian	Mandarin	Moldavian	Nigerian	Persian	Pashto	Polish	Portuguese	Punjabi	Romanian	Russian	Slovak	Somali	Spanish	Swahili	Taiwanese	Thai	Turkish	Ukrainian	Urdu	Vietnamese
Pimentel Multiple SVC (616) 475-0755																																								X							
Sanchez Tax/Translation SVC (616) 248-3688																																								X							
Translations Unlimited (616) 942-5742	X																																														
GROSSE POINTE PARK																																															
Interpreter/Translator SVC, Inc. (313) 331-4285		X	X		X					X			X					X	X			X		X	X			X						X	X		X	X		X							X
HAMTRAMCK																																															
Danka INTL (313) 871-0080	X																																														
MGR Translation (313) 673-9072																																		X													
HART																																															
Lost In Translation (231) 873-0809																																										X						
Spanish Language SVC (231) 873-8145																																										X						
Practicos (231) 873-5900																																										X						
HARTFORD																																															
Connie's Translating SVC (269) 424-9952																																										X						
HILLSDALE																																															
Hillsdale College (517) 437-7341																		X	X																						X						
HOLLAND																																															
El Centro of Bethany Christian SVC (616) 396-3391																																									X						
J & A SVC (616) 796-8300																																									X						
Lakeshore Latino Outreach																																									X						

	Any Language	Albanian	Arabic	Bantu Chizigua	Bosnian (Serbo-Croatian)	Brazilian	Burmese	Burundi	Chaldean	Chinese	Creole	Croatian	Czech	Dutch	Farsi	Filipino	Finnish	French	German	Hebrew	Greek	Hindi	Hungarian	Italian	Japanese	Korean	Lithuanian	Macedonian	Mandarin	Moldavian	Nigerian	Persian	Pashto	Polish	Portuguese	Punjabi	Romanian	Russian	Slovak	Somali	Spanish	Swahili	Taiwanese	Thai	Turkish	Ukrainian	Urdu	Vietnamese
Center, Inc. (616) 499-4872																																																
LAR Counseling SVC, LLC (616) 886-8045																																									X							
Latin Americans United for Progress, Inc. (616) 392-5058																																									X							
Marielas Bilingual SVC (616) 283-1952																																									X							
MRG Translations (616) 392-5358																																									X							
Tax & Notary - Translation SVC (616) 392-7603																																									X							
Weller Language SVC (616) 396-2201																																									X							
IMLAY CITY																																															
Hispanic SVC (810) 724-3665																																									X							
KALAMAZOO																																															
ENLACES Language Solutions, LLC (269) 553-3304			X															X	X					X										X	X			X			X	X					
Hispanic American Council (269) 385-6279																																									X							
Kalamazoo Valley Community College (269) 488-4236																		X																							X							
New Vallarta Tax/Translation SVC (269) 385-2281																																									X							
OmniCom INTL													X					X	X					X										X					X		X							
Professional Translation & Interpretation SVC (269) 323-8887																																									X							
LAKE CITY																																																
MTM Translations (231) 920-																																									X							

	Any Language	Albanian	Arabic	Bantu Chizigua	Bosnian (Serbo-Croatian)	Brazilian	Burmese	Burundi	Chaldean	Chinese	Creole	Croatian	Czech	Dutch	Farsi	Filipino	Finnish	French	German	Hebrew	Greek	Hindi	Hungarian	Italian	Japanese	Korean	Lithuanian	Macedonian	Mandarin	Moldavian	Nigerian	Persian	Pashto	Polish	Portuguese	Punjabi	Romanian	Russian	Slovak	Somali	Spanish	Swahili	Taiwanese	Thai	Turkish	Ukrainian	Urdu	Vietnamese
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7C Lingo (517) 337-2700	X																																															
Cristo Rey Community Center (517) 372-4700																																									X							
Globe Translation & Interpre. SVC (517) 204-1665																																									X							
Interactive Designs for Translation (517) 575-8878										X																																					
Lansing Catholic Social SVC (517) 484-1010			X		X																																			X	X						X
Lansing Somali Bantu Organization (517) 484-5022				X				X																																X		X						
Linguistic Arete, LLC (517) 214-1344							X			X								X	X					X											X			X			X						
Michigan State University (517) 353-0740			X							X								X	X		X			X	X										X			X			X	X					
LANTHRUP VILLAGE																																																
Arab-American & Chaldean Council (248) 559-0960			X						X																																							
Direct Imm & Translation SVC (248) 395-2278			X																																													
LAWRENCE TOWNSHIP																																																
Good Samaritan Baptist Church (269) 427-0110																																										X						
LIVONIA																																																
Coin a Phrase Language SVC (734) 968-8264																		X																														
Diaspora SVC (313) 506-5065																		X						X						X								X									
MARQUETTE																																																

	Any Language	Albanian	Arabic	Bantu Chizigua	Bosnian (Serbo-Croatian)	Brazilian	Burmese	Burundi	Chaldean	Chinese	Creole	Croatian	Czech	Dutch	Farsi	Filipino	Finnish	French	German	Hebrew	Greek	Hindi	Hungarian	Italian	Japanese	Korean	Lithuanian	Macedonian	Mandarin	Moldavian	Nigerian	Persian	Pashto	Polish	Portuguese	Punjabi	Romanian	Russian	Slovak	Somali	Spanish	Swahili	Taiwanese	Thai	Turkish	Ukrainian	Urdu	Vietnamese
Northern Michigan University (906) 227-1000																	X	X	X	X				X	X										X			X			X						
MIDLAND																																																
Global Language Translations & Consulting (989) 839-5804	X																																															
Trans-Type INTL (989) 631-2424			X							X								X	X					X		X															X							
MILFORD TOWNSHIP																																																
Mi Reina, LLC (248) 361-3979																																											X							
MONROE																																																	
Monroe Community College (734) 384-4153																		X	X																															
MUSKEGON																																																	
D's Translating SVC (231) 206-0064																																											X							
Erbach & Associates (231) 798-4903																																											X							
LA 6 Mini-Mart/Notary/Tax/ Translating (231) 722-7179																																											X							
Translation SVC of Muskegon County (231) 736-7776																																											X							
MUSSEY TOWNSHIP																																																	
Aguilar Notary/Translator SVC (810) 531-5759																																											X							
NORTHVILLE																																																	
A 1 German Translations (248) 325-529																			X																															
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Suzuki Myers & Associates (248) 344-0909																									X																									

	Any Language	Albanian	Arabic	Bantu Chizigua	Bosnian (Serbo-Croatian)	Brazilian	Burmese	Burundi	Chaldean	Chinese	Creole	Croatian	Czech	Dutch	Farsi	Filipino	Finnish	French	German	Hebrew	Greek	Hindi	Hungarian	Italian	Japanese	Korean	Lithuanian	Macedonian	Mandarin	Moldavian	Nigerian	Persian	Pashto	Polish	Portuguese	Punjabi	Romanian	Russian	Slovak	Somali	Spanish	Swahili	Taiwanese	Thai	Turkish	Ukrainian	Urdu	Vietnamese
OSCODA																																																	
Crusecom Technology Consultants (989) 739-5070			X																																					X								
PETOSKEY																																																
Language SVC (231) 439-5181																																									X								
PONTIAC																																																
Catholic Social SVC of Oakland (248) 338-4250																																									X								
PORT HURON																																																
St. Clair County Community College (810) 989-5578																		X	X																						X								
ROCHESTER HILLS																																																
German-English-Translations-SVC LLC (248) 613-0427																			X																														
BRUCE TOWNSHIP																																																
St. Clement of Rome Catholic Church (586) 752-9611																																										X								
ROYAL OAK																																																
Access Languages Inc. (248) 424-4800	X																																																
Voices Around the World (248) 288-6440		X	X		X					X								X	X						X			X							X	X				X								
SAGINAW																																																
Diocese of Saginaw Hispanic Ministries Cultural Center (989) 797-6646																																										X								
La Amistad Unida (989) 529-2272																																										X								
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Global Language Solutions,	X																																															

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LLC (844) 698-3777																																																
SOUTHFIELD																																																
A&D Translation Consultants (248) 790-9371																								X											X							X							
Aress Academy (248) 876-0012			X		X																		X								X		X	X		X			X	X					X	
Bromberg and Associates (313) 871-0080	X																																															
Executive Language SVC, Inc. (248) 357-0625	X																																															
INTL Translating Bureau (248) 559-1677	X																																															
Language Center INTL (248) 355-5506	X																																															
Lutheran Social SVC of Michigan (248) 423-2790		X	X		X				X									X																				X									X	X
Meihua Interpreting and Translating SVC (248) 808-7881										X																																						
Musashi INTL, Inc. (248) 358-1911																									X																								
STERLING HEIGHTS																																																
Global ATR, Inc. (586) 795-8100	X																																															
Horizon Solutions3, Inc. (586) 978-8333		X	X		X				X							X		X	X					X	X	X		X						X			X				X			X			
INTL Translations & SVC (586) 202-0512		X																						X										X				X			X						
KNE Translating SVC (586) 979-5229	X																																															

	Any Language	Albanian	Arabic	Bantu Chizigua	Bosnian (Serbo-Croatian)	Brazilian	Burmese	Burundi	Chaldean	Chinese	Creole	Croatian	Czech	Dutch	Farsi	Filipino	Finnish	French	German	Hebrew	Greek	Hindi	Hungarian	Italian	Japanese	Korean	Lithuanian	Macedonian	Mandarin	Moldavian	Nigerian	Persian	Pashto	Polish	Portuguese	Punjabi	Romanian	Russian	Slovak	Somali	Spanish	Swahili	Taiwanese	Thai	Turkish	Ukrainian	Urdu	Vietnamese
Vital INTL Programs (586) 795-2500 ext. 105	X																																														
WorldWide Translating & Interpreting (313) 873-7905	X																																															
TROY																																																
Diversified Graphix (248) 879-6702																																			X														
GG Interpret LLC (248) 854-4945	X																																															
Global Language Links, LLC (248) 632-6446	X																																															
PALS INTL (248) 362-2060	X																																															
Verbum Translations (248) 224-8600																		X	X						X												X				X							
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Multilingual SVC (248) 722-1471																																						X							X			
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Trident Trade Group (586) 759-6563																																						X							X			
Ukrainian Cultural Center (586) 757-8130																																						X							X			
WASHINGTON TOWNSHIP																																																
Language Experts (586) 677-1096																		X																								X							
WATERFORD TOWNSHIP																																																
Centro Hispano (248) 618-9273																																											X						
WEST BLOOMFIELD TOWNSHIP																																																
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	Any Language	Albanian	Arabic	Bantu Chizigua	Bosnian (Serbo-Croatian)	Brazilian	Burmese	Burundi	Chaldean	Chinese	Creole	Croatian	Czech	Dutch	Farsi	Filipino	Finnish	French	German	Hebrew	Greek	Hindi	Hungarian	Italian	Japanese	Korean	Lithuanian	Macedonian	Mandarin	Moldavian	Nigerian	Persian	Pashto	Polish	Portuguese	Punjabi	Romanian	Russian	Slovak	Somali	Spanish	Swahili	Taiwanese	Thai	Turkish	Ukrainian	Urdu	Vietnamese
910-1655																																																
Persia House of Michigan (248) 302-1447															X																	X																	
Richardson INTL (248) 865-5099										X															X																							
Suzuki Associates (248) 851-5494																									X																							
WESTLAND																																																
J & M SVC (734) 522-4524																																									X							
WHITEWATER TOWNSHIP																																															
Servicio Latino (231) 267-5214																																									X							
WHITMORE LAKE TOWNSHIP																																															
Brazilian Portuguese Language SVC (810) 231-6596						X																													X													
WYOMING																																															
A-Chau Translation SVC (616) 452-4000																																															X
Liaison Linguistics (616) 560-8492			X			X	X																																				X	X					X
YPSILANTI																																															
Eastern Michigan University (734) 487-0130																		X	X						X																	X							
Ole Servicios Latino-americanos Translation (734) 528-1212			X															X						X											X						X	X			X			

Public Health Resource Sheet FOREIGN LANGUAGE TB PATIENT INFORMATION

TITLE	LOCATION	CREATED BY	RESOURCE TYPE	DESCRIPTION
Tuberculosis Poster	http://www.aapcho.org/resources_db/tuberculosis-posters/	AAPCHO	Poster	A tool for patient health education, these tuberculosis posters provide important, quick, and essential facts on the progression and treatment options of the disease.
Tuberculosis: Get the Facts!	http://www.aapcho.org/resources_db/tuberculosis-get-the-facts/		Fact Sheets	These fact sheets provide essential information on tuberculosis symptoms, testing, and medication among other facts.
What You Should Know about Tuberculosis	http://www.aapcho.org/resources_db/what-you-should-know-about-tuberculosis-tb/		Pamphlet	This pamphlet provides important information on what TB is, how it is spread, signs and symptoms, TB testing, and treatment.
Get the Facts About TB Disease	http://www.cdc.gov/tb/publications/culturalmaterials.htm	CDC	Booklets	The culturally appropriate patient education materials cover six topics —TB disease, TB infection, tuberculin skin testing, TB contact investigation, TB and HIV coinfection, and TB medicine. The materials are available in English (low literacy), Spanish, and Tagalog languages. The Spanish and Tagalog versions include the English translations on the flip side of the publication.
What You Need to Know About TB Infection				
Protect Your Family and Friends from TB: The TB Contact Investigation				
Take Steps to Control TB When You Have HIV				
Staying on Track With TB Medicine				
What You Need to Know About the TB Skin Test			Fact Sheet	
Find TB Resources	www.FindTBResources.org		Website	Find TB Resources connects you to a worldwide library of online resources, training, and educational materials.
National Prevention Information Network	https://npin.cdc.gov/disease/tuberculosis		Website	The NPIN is an inventory of domestic and international TB education and training materials. It is available as an online searchable database or as a printed document.
Tuberculosis Patient Education	http://ethnomed.org/patient-education/tuberculosis/tuberculosis-patient-education	EthnoMed	Website	EthnoMed is a resource webpage containing information about cultural beliefs, medical issues and related topics pertinent to the health care of immigrants to Seattle or the US. Materials are

TITLE	LOCATION	CREATED BY	RESOURCE TYPE	DESCRIPTION
				available in multiple languages from various programs around the country, including the CDC
Mr. Tuber's Coloring Book	http://www.floridahealth.gov/diseases-and-conditions/tuberculosis/tb-publications/index.html	Florida Department of Health, Bureau of Tuberculosis and Refugee Health	Coloring Book	Designed to provide children very basic information about TB.
Patient Directions for Sputum Collection			Fact Sheet	Simple to understand fact sheet with step-by-step directions for sputum collection with photos.
The Tuberculin Skin Test Tells Who is Infected: *What Does It Mean?*			Pamphlet	Designed to inform and engage patients about the TST in 14 different languages.
INH-*Standing Between You and TB*				Designed to inform and engage patients about treatment for LTBI in 14 different languages.
You Can Prevent TB			Video	Designed for people with TB infection, this 10 minute video illustrates a patient learning he has TB and how he communicates with his doctor about his diagnosis. Provided in five languages.
The Facts About TB				Designed for concerned public, this 13 minute video describes a concerned girlfriend learning about TB. Provided in four languages.
TB and HIV Connection				Designed for people with HIV infection, this 13 minute video shows two HIV-positive friends discussing TB with their doctor. Provided in three languages.
You Can Beat TB				Designed for people being treated for TB, this 12 minute video show the relationship between an outreach worker and her patient during the TB treatment process. Provided in four languages.
Marshallese TB Radio Programs	http://health.hawaii.gov/tb/patient-education/	Hawaii Department of Health: TB Control Program	Radio	Thirty-minute radio shows broadcast in a mix of Marshallese and English. These programs originally aired on Honolulu radio station KNDI 1270 AM in October 2002. Radio hosts include John Hunter, of the American Lung Association of Hawaii, and Josephine Hunter, originally from the Marshall Islands.
Tuberculosis: Get the Facts			Pamphlet	A Marshallese translation of a popular CDC pamphlet features frequently asked questions about TB. Prints on two 8.5x11sheets.
Your TB Skin Test is Positive				A pamphlet for TB patients on Oahu explaining the meaning of a positive TB test, and where to get a chest x-ray. Prints on two 8.5×11 sheets.

TITLE	LOCATION	CREATED BY	RESOURCE TYPE	DESCRIPTION
Stop TB			Poster	A color poster with "Stop TB" message written in six languages. Small poster prints on one 8.5x11. Large poster prints on four 8.5×11 sheets.
Cover Your Cough				A color poster for clinic waiting areas urging patients to cover their nose and mouth when coughing. Message written in five languages. Prints on two 8.5x11 sheets.
What You Should Know About TB			PowerPoint	Slides presenting basic TB information for the general public. Presentation stresses difference between latent TB infection and active TB disease, and how TB is spread in three languages
Translation and Interpreter Services in Michigan	http://www.michigan.gov/documents/mdhhs/18._Translation_Services_Resource_Sheet_518760_7.pdf	MDHHS TB Control Unit	Resource Sheet	Adapted from the Michigan Department of State, this is a current list of translators and interpreters available for hire in Michigan.
Minnesota Department of Health	http://www.health.state.mn.us/divs/idepc/diseases/tb/ed/index.html	Minnesota Department of Health	Fact Sheets Videos	This department of health offers fact sheets and videos for patients and providers in 16 different languages.
Tuberculosis	http://www.mhcs.health.nsw.gov.au/publicationsandresources#c3=eng&b_start=0&c1=Tuberculosis	Multi-Cultural Health Communication Service, New South Wales Government	Fact Sheets	Information about TB, including causes, prevention, symptoms, diagnosis, and treatment. Provided in 25 different languages.
Tuberculin Skin Test				Information about the TST or Mantoux test used to test for TB. Provided in 25 different languages.
BCG Vaccination - Information for Patients				Information about the BCG vaccine to help prevent tuberculosis, including who should have the vaccination and who should not, its advantages and disadvantages, and side effects. Provided in 16 different languages.
Instructions for collecting sputum for TB				Instructions to patients for providing sputum specimens to check for TB. Provided in 15 different languages.
Stop TB	http://www.nashville.gov/Health-Department/Clinical-Health-Services/Tuberculosis-Elimination-Program.aspx	Nashville, TN Health Department Program	Fact Sheet	Colorful fact sheet about TB offered in four languages.
TB Get the Facts			Pamphlet	CDC pamphlet describing TB in four languages.
Tuberculosis – Multiple Languages	http://www.nlm.nih.gov/medlineplus/languages/tuberculosis.html#Amharic	National Institutes of Health, Medline Plus Health Reach	Website	This NIH-based website has resources for patient and provider TB education in 20 languages.

TITLE	LOCATION	CREATED BY	RESOURCE TYPE	DESCRIPTION
How to Collect a Sputum Sample for TB Testing	http://www.publichealthmdc.com/media.cfm	Public Health Madison & Dane County	Video	This health department developed a step-by-step guide on how to properly collect sputum for testing in 19 different languages.
Isoniazid Daily for 9 Months	https://public.health.oregon.gov/DiseasesConditions/CommunicableDisease/Tuberculosis/Pages/factsheets.aspx	Oregon Health Authority	Fact Sheets	Fact sheets for three methods of treatment for LTBI offered in three languages.
Rifampin Daily for 4 Months				
Isoniazid and Rifapentine Weekly for 12 Weeks				
Multi-language TB Fact Sheets		Oregon Health Authority, Minnesota Department of Health	Fact Sheets	Fact sheets on the TB skin test, QuantiFERON test, latent TB infection, active TB disease, TB contact investigation, and instructions for collecting sputum are provided below in multiple languages.
TB Facts (in other languages)	http://www.kingcounty.gov/healthservices/health/communicable/diseases/tuberculosis.aspx	Public Health-Seattle & King County	Website Fact Sheets	This health department has TB facts listed on their website in English and fact sheets about TB available in six different languages.
RTMCC Products	http://sntc.medicine.ufl.edu/Products.aspx#.VQtAp47F9Yw	RTMCC	Tool Video Fact Sheet Poster Booklet Guide Phone App	The SNTC offers 63 products of various form, which can be downloaded, a few will need to be mailed free of charge.
What is Tuberculosis?	http://sfcdcp.org/patienteducation.html	San Francisco Department of Health	Pamphlet	Pamphlets with photos offered in six languages, describing the difference between TB disease and LTBI, and what each patient should know about their diagnosis.
I Have Been Exposed to Tuberculosis				
What Do I Need to Know About Latent Tuberculosis Infection?				
What Do I Need to Know About Active TB Disease?				

TITLE	LOCATION	CREATED BY	RESOURCE TYPE	DESCRIPTION
Cover Your Cough			Poster	Classic "Cover Your Cough" poster offered in two languages for airborne infectious diseases.
TB, General Awareness Raising	http://www.thetruthabouttb.org/resources/awareness-raising-resources/	The Truth about TB	Pamphlet	These pamphlet provide a brief overview of TB, including how it is transmitted, risk factors, common symptoms and what action someone should take if they are concerned. Offered in English only.
TB, Drugs and Alcohol				Offered in English only.
TB in the South Asian Community				Offered in four different languages.
TB and HIV in the African Community				Offered in English only.
TB in the Somali Community				Offered in two different languages.
Multilingual Symptoms Poster			Poster	This poster describes the symptoms of TB in a range of community languages. It is available in two versions and five different languages.
The Real Story DVD	http://www.thetruthabouttb.org/resources/real-story-film/		Video	This is the story of five people's journeys through TB, from their experiences of the early symptoms to the diagnosis and treatment that put them on the road to recovery. The film is offered in 12 different languages.
TB Program Translated Brochures by Language	http://www.vdh.virginia.gov/TB/Patients/brochureLanguage.htm	Virginia Division of Tuberculosis Control	Pamphlets	The Virginia Division of Tuberculosis Control offers a variety of patient education resources in 16 different languages.

Each resource is available in the following languages:

CREATOR	Albanian	Amharic	Arabic	Bengali	Bosnian (Serbo-Croatian)	Burmese	Cantonese	Chinese	Creole	English	Farsi	Filipino	French	Gujarati	Hindi	Hmong	Ilocano	Indonesian	Japanese	Karen	Khmer	Korean	Kunama	Lao	Macedonian	Marshallese	Nepali	Oahu	Oromo	Polish	Portuguese	Russian	Samoan	Somali	Spanish	Swahili	Tagalog	Tamil	Tetum	Thai	Tibetan	Tigrinya	Tongan	Turkish	Ukrainian	Urdu	Vietnamese
AAPCHO								X		X							X					X														X			X					X
CDC										X																								X		X								
EthnoMed								X		X											X	X						X				X		X	X		X							X
Florida			X		X		X	X	X	X	X				X							X									X		X	X						X		X
Hawaii								X		X							X					X			X		X									X							
Minnesota		X	X		X					X						X				X	X			X				X			X		X	X								
Multi-Cultural			X		X			X		X	X	X	X		X			X			X	X		X	X					X		X	X	X			X	X			X	X
Nashville						X				X																	X									X								
NIH		X	X		X			X		X			X		X	X			X		X	X		X					X		X	X		X	X		X					X	X
Public Health Madison						X		X		X			X			X				X	X		X	X			X				X		X	X	X							X	X
Public Health Oregon		X	X		X	X		X		X	X					X		X		X	X	X		X				X			X		X	X	X			X				X
Public Health Seattle								X		X												X									X		X	X								X
San Francisco								X		X																					X			X		X							X
SNTC										X																								X										
The Truth About TB			X	X						X			X	X															X	X			X		X		X					X	
Virginia	X	X	X					X		X	X				X			X				X									X		X	X		X						X	X

AAPCHO, The Association of Asian Pacific Community Health Organizations; **BCG**, Bacillus Calmette-Guerin; **CDC**, Centers for Disease Control and Prevention; **HIV**, Human Immunodeficiency Virus; **INH**, Isoniazid; **LTBI**, latent tuberculosis infection; **MDHHS**, Michigan Department of Health and Human Services; **NIH**, National Institutes of Health; **NPIN**, National Prevention Information Network; **SNTC**, Southeastern National Tuberculosis Center; **TB**, tuberculosis; **TST**, tuberculin skin test.

Public Health Resource Sheet

CULTURAL COMPETENCY

TITLE	LOCATION	CREATED BY	RESOURCE TYPE	DESCRIPTION
Cultural Competence Education, 2005	https://www.aamc.org/download/54338/data/culturalcomped.pdf	AAMC	Training	This cultural competence curriculum was created for medical students in an effort to enhance the patient-physician interaction and assure students have the knowledge, skills, and attitudes that allow them to work effectively with patients and their families, as well as with other members of the medical community.
Cross Cultural TB Guide, 2000	http://www.aapcho.dreamhosters.com/download/PDF/AAPCHO_Cross-Cultural_TB_Guide.pdf	AAPCHO	Guide	This guide serves to assist health providers to improve communication about tuberculosis with patients from the Philippines, Vietnam, China, and Korea
The SHARE Approach – Taking Steps Toward Cultural Competence	http://www.ahrq.gov/sites/default/files/wysiwyg/professionals/education/curriculum-tools/shareddecisionmaking/tools/tool-7/share-tool7.pdf	AHRQ	Training	The SHARE Approach is a 1-day training program developed by AHRQ to help health care professionals work with patients to make the best possible health care decisions, through the use of patient-centered outcomes research.
TB ETN Cultural Competency Resource Guide	http://dph.georgia.gov/sites/dph.georgia.gov/files/TB-Cultural_TBETNCompetencyGuide.pdf	CDC TB ETN	Guide	This resource guide was developed by the Cultural Competency Subcommittee of the TB ETN and includes resources in the form of organizations, books, articles, reports, and assessment tools regarding cultural competency.
Center for Effective Collaboration and Practice	http://cecp.air.org/cultural/default.htm	CECP	Website Book	This website describes cultural competency, what research is being done to understand it, and how you can get more information about it, including a link to their book.
Beyond the Talk, Practicing the Walk: A Path to Bridge the Cultural Gap	http://www.sandiegocounty.gov/hhsa/programs/bhs/documents/CCMH_XVIII_Resource_Toolkit_2012.pdf	County of San Diego Behavioral Health Services	Training	After their 18th Mental Health Southern Region Summit this group created this toolkit to explore the role of culture, social determinants, and policy in insuring equity and equality in mental health care.
EthnoMed: Integrating Cultural Information into Clinical Practice	http://ethnomed.org/	EthnoMed	Website	EthnoMed contains information about cultural beliefs, medical issues and related topics pertinent to the health care of immigrants to Seattle or the US, many of whom are refugees fleeing war-torn parts of the world.
Paso a Paso: Step-by-Step Toward Cultural Competence, 2002	http://www.nhchc.org/wp-content/uploads/2011/10/January2002HealingHands.pdf	HCH Clinicians' Network	Publication	This story describes the gradual process towards cultural competence.

TITLE	LOCATION	CREATED BY	RESOURCE TYPE	DESCRIPTION
Leading with Diversity: International Multicultural Institute	http://imciglobal.org/	International Multicultural Institute	Website Training Publications	This institute provides consultation services, knowledge, and skills in the area of workforce diversity, human resource management, multicultural education and cross-cultural conflict resolution.
Addressing Cultural and Linguistic Competence in the HCH Setting: A Brief Guide, 2002	http://www.nhchc.org/wp-content/uploads/2011/10/CulturalCompetence0406.pdf	National Health Care for the Homeless Council	Guide	This short guide explains the relationship between cultural and linguistic competence and how this information can be useful in caring for homeless populations.
Cultural Competence Checklist	http://www.nhchc.org/wp-content/uploads/2011/10/CulturalCompetenceChecklistforSuccess.pdf		Checklist	This short checklist simply describes how to successfully communicate with your patients.
National Center for Cultural Competence	http://nccc.georgetown.edu/index.html	NCCC, Georgetown University	Website Guide Training Checklist	This website offers a multitude of resources including toolkits, guides and planning tools, checklists, and policy briefs for adult and children learners.
Think Cultural Health	https://www.thinkculturalhealth.hhs.gov/	Office of Minority Health; Health and Human Services	Website Training	This site offers the latest resources and tools to promote cultural and linguistic competency in health care. You may access free and accredited continuing education programs as well as tools to help you and your organization provide respectful, understandable and effective services. They offer e-learning programs, communication tools and patient and provider educational resources.
	https://www.thinkculturalhealth.hhs.gov/pdfs/EnhancedNationalCLASStandards.pdf		Publication	This document describes the national standards for CLAS and provides a blueprint for individuals and health care organizations to implement culturally and linguistically appropriate services.
Reflections on the CLAS Standards: Best Practices, Innovations and Horizons, 2003	http://xculture.org/cultural-competency-programs/about-cultural-competency/	The Cross Cultural Health Care Program	Training	This program offers training and resources for cultural competency education. The 2003 study covers important topics including: origins of the CLAS Standards, site visits and profiles of five centers, oversight authorities, common themes, and literature review.

AAMC, Association of American Medical Colleges; **AAPCHO**, Association of Asian Pacific Community Health Organizations; **AHRQ**, Association for Healthcare Research and Quality; **CDC**, Centers for Disease Control and Prevention; **CECP**, Center for Effective Collaboration and Practice; **CLAS**, Culturally Linguistically Appropriate Services; **HCH**, Health Care for the Homeless; **HHS**, United States Department of Health & Human Services; **MDHHS**, Michigan Department of Health and Human Services; **NCCC**, National Center for Cultural Competence; **TB**, tuberculosis; **TB ETN**, Tuberculosis Education and Training Network.

Refugee Development Center

2015 ANNUAL REPORT

www.refugeedevelopmentcenter.org

Providing the education, orientation and social support refugees need to become self-sufficient members of society

we served clients from 41 countries

Afghanistan (2%) Bhutan (18%) Burma (Myanmar) (15%) Burundi (4%)
Central African Republic (1%) Colombia (1%) Congo, Democratic Republic of (13%)
Cuba (3%) Eritrea (1%) Ethiopia (1%) Iraq (14%) Kenya (1%)
Mexico (2%) Nepal (1%) Somalia (14%) Sudan (3%) Thailand (1%)
Other (7%)

295
volunteers

741
adults served

950
youth served

24,953
hours of direct service with clients

PROGRAMS OFFERED:

English for Speakers of Other Languages (ESOL) classes
After-School Tutoring & Cultural Adjustment Workshops
Academic Workshops
Parent Education Nights
Parents as Leaders (PALs) Program
Interpreting/Translating Support
Parent-Teacher Conferences Support
Newcomers Soccer Team
Women's Sewing Circle & Support Group
CAPS (Career and Post Secondary) Workshops
GLOBE Summer Camp & Young Leaders
Girls Group
Community Outreach
Transportation Services
School Orientations
Home Visits
PEACE Club

FUNDERS AND PARTNERS:

Lansing School District
Christ Lutheran Church
Michigan State University
State of Michigan
City of Lansing
Ingham County
Capital Area United Way
Capital Region Community Foundation
Jackson National Community Foundation
Michigan Fitness Foundation
Lansing Soccer Club
Joe D Pentecost Foundation
DART Foundation
Granger Foundation
Lansing Area Community Trust Fund
Power of We / Americorps VISTA

Refugee Development Center

Cultural Competency

Erika Brown-Binion
Executive Director
ebrown@rdclansing.org
517-253-8025
www.refugeedevelopmentcenter.org

Refugee Development Center

History and Mission:

The Refugee Development Center started in 2002 with the mission of providing the educational and social support refugees need to become self-sufficient members of society.

Since 2002, the RDC has grown from a part time staff member, a handful of volunteers and the ability to serve about 100 clients--- to a staff of 11, approximately 300 volunteers annually, and, in 2015, direct service with almost 1,700 newcomers.

Who is a Refugee?

Someone found outside his/her home country who has a "well founded fear of persecution" because of his/her:

- Race, religion, nationality, social group membership or political opinion

1951 Convention Relating to the Status of Refugees.

Refugee Development Center

Fast Facts:

- **20 million**
- **17 years**
- **Less than 1%**
- **70,000**
- **4th**
- **600-700**

Cultural Competency

Cultural competence implies lifelong learning of all these concepts with the added component of effectively operating in various cultural contexts.

- ***Lifelong learning***
- ***Open-mindedness***
- ***Humility***
- ***Curiosity***
- ***Empathy***

(Source: globaltb.njms.rutgers.edu/.../Newsletter-7.pdf)

Steps toward Competence

- Involve immigrants in their own health care
- Learn more about culture, starting with our own
- Speak the language, or use a trained interpreter
- Ask the right questions and look for answers
- Find resources and form partnerships

(Source: Recommendations from the Minnesota Public Health Association's Immigrant Health Task Force: https://www.ucare.org/providers/documents/6stepsculturalcompetence.pdf)

Michigan refugees are from…

In 2015, 630 refugees arrived in Lansing

What is the Pathway Out?

Education
Support
&
Opportunity

RDC Programs

- *SOAR after-school tutoring and mentoring*
- *Newcomers Soccer Program*
- *GLOBE Camp*
- *Girls Group*
- *ESOL Classes*
- *Home Visits*
- *Nutrition Education*
- *Parent Nights*
- *Parent/Teacher Conference Support*
- *PALS*
- *Women's Sewing Circle*

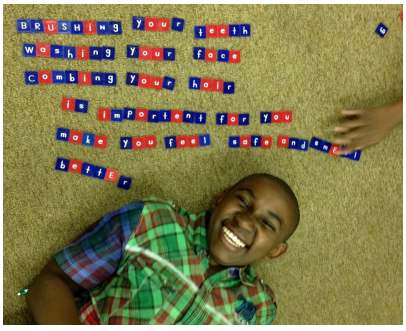
North Elementary School After-School Tutoring

Refugee Development Center

Connect with RDC

- Visit www.refugeedevelopmentcenter.org
- Make a Donation
- Sign up for our monthly newsletter
- Follow us on Twitter
- Friend us on Facebook
- Become a volunteer!

Thank you for supporting Newcomers!



Centers for Disease Control and Prevention
MMWR
Morbidity and Mortality Weekly Report
Weekly / Vol. 65 / No. 11
March 25, 2016

World TB Day — March 24, 2016

World TB Day is recognized each year on March 24, which commemorates the date in 1882 when Dr. Robert Koch announced his discovery of *Mycobacterium tuberculosis*, the bacillus that causes tuberculosis (TB). World TB Day is an opportunity to raise awareness about TB and support worldwide TB prevention and control efforts. The U.S. theme for World TB Day, "Unite to End TB," highlights how much more needs to be done to eliminate TB in the United States.

After 2 decades of annual declines, TB incidence in the United States has leveled at approximately 3.0 new cases per 100,000 persons. (*1*,*2*). The determinants of this leveling in TB incidence are not yet clear; further evaluation of available data is required to understand the causes of this trend.

CDC is committed to eliminating TB in the United States. Staying on the path toward TB elimination will require more intensive efforts, both in the United States and globally. These efforts will not only focus on strengthening existing systems for interrupting TB transmission, but also on increasing testing and treatment of persons with latent TB infection. Additional information about World TB Day and CDC's TB elimination activities is available on CDC's website (http://www.cdc.gov/tb/worldtbday).

References

1. Salinas JL, Mindra G, Haddad MB, Pratt R, Price SF, Langer AJ. Leveling of tuberculosis incidence—United States, 2013–2015. MMWR Morb Mortal Wkly Rep 2016;65:273–8.
2. CDC. Reported tuberculosis in the United States, 2014. Atlanta, GA: US Department of Health and Human Services, CDC; 2015.

Leveling of Tuberculosis Incidence — United States, 2013–2015

Jorge L. Salinas, MD[1,2]; Godwin Mindra, MBChB[1,2]; Maryam B. Haddad, MSN[2]; Robert Pratt[2]; Sandy F. Price[2]; Adam J. Langer, DVM[2]

After 2 decades of progress toward tuberculosis (TB) elimination with annual decreases of ≥0.2 cases per 100,000 persons (*1*), TB incidence in the United States remained approximately 3.0 cases per 100,000 persons during 2013–2015. Preliminary data reported to the National Tuberculosis Surveillance System indicate that TB incidence among foreign-born persons in the United States (15.1 cases per 100,000) has remained approximately 13 times the incidence among U.S.-born persons (1.2 cases per 100,000). Resuming progress toward TB elimination in the United States will require intensification of efforts both in the United States and globally, including increasing U.S. efforts to detect and treat latent TB infection,

INSIDE

Continuing Education examination available at http://www.cdc.gov/mmwr/cme/conted_info.html#weekly.

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

strengthening systems to interrupt TB transmission in the United States and globally, accelerating reductions in TB globally, particularly in the countries of origin for most U.S. cases.

Health departments in the 50 states and District of Columbia (DC) electronically report verified TB cases that meet the CDC and Council of State and Territorial Epidemiologists case definition to the National Tuberculosis Surveillance System (*2*). Reports include the patient's demographic information, medical and social risk factors for TB, and clinical information about the TB case. U.S.-born persons are defined as persons born in the United States, American Samoa, the Federated States of Micronesia, Guam, the Republic of the Marshall Islands, the Commonwealth of the Northern Mariana Islands, Puerto Rico, the Republic of Palau, the U.S. Virgin Islands, and U.S. minor outlying islands, or persons born elsewhere to a U.S. citizen (*3*). Race/ethnicity is self-identified. Persons of Hispanic ethnicity might be of any race or multiple races; non-Hispanic persons are categorized by race. CDC calculates state and overall national TB incidence by using July 1 midyear population estimates from the U.S. Census Bureau (*3*). The Current Population Survey provides the population denominators for incidence according to national origin and race/ethnicity (*4*). TB case counts and incidence per 100,000 population during 2015 and percent change from 2014 were calculated for the 50 states and DC and for each census division.

As they did during the previous 7 years, four states (California, Florida, New York, and Texas) reported >500 cases each in 2015 (Table 1). Together, these four states accounted for 4,839 TB cases, or approximately half (50.6%) of all reported cases. State-specific incidence ranged from 0.5 cases per 100,000 persons (West Virginia) to 9.1 TB cases per 100,000 persons (Alaska) (median state incidence = 2.0). By census division, the highest TB incidence was reported in the Middle Atlantic, West South Central, and Pacific divisions. The largest increases in TB incidence from 2014 to 2015 occurred in the East North Central, New England, Mountain, and West South Central divisions.

Among the 9,563 TB cases reported during 2015, 3,201 (33.5%) occurred among U.S.-born persons, corresponding to an annual TB incidence of 1.2 per 100,000 persons. The 6,335 TB cases among foreign-born persons in the United States (66.2% of the total U.S. cases) corresponded to an annual TB incidence of 15.1 per 100,000 persons (Table 2). Overall national TB incidence remained approximately 3.0 cases per 100,000 persons during 2013–2015 (Figure).

In 2015, most U.S.-born persons reported with TB were either non-Hispanic blacks (1,144 cases) or non-Hispanic whites (991 cases) (Table 2). Among U.S.-born non-Hispanic blacks, TB incidence was at an all-time low (3.3 cases per 100,000 persons). Incidence among U.S.-born non-Hispanic whites remained the lowest (0.5 cases per 100,000). Although U.S.-born Hispanics had the third highest case count (661 cases), they had the second lowest incidence (1.8 cases per 100,000). U.S.-born Native Hawaiians/other Pacific Islanders had the highest incidence (12.7 cases per 100,000), followed by U.S.-born American Indians/Alaska

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TABLE 1. Tuberculosis (TB) case counts and incidence, by U.S. Census division and state — United States, 2014 and 2015*

Census division/ state	No. reported TB cases			TB incidence per 100,000 persons†		
	2014	2015*	% change	2014	2015*	% change§
Division 1: New England						
Connecticut	60	70	16.7	1.7	1.9	16.8
Maine	14	18	28.6	1.1	1.4	28.7
Massachusetts	199	192	-3.5	2.9	2.8	-4.1
New Hampshire	11	13	18.2	0.8	1.0	17.9
Rhode Island	21	30	42.9	2.0	2.8	42.7
Vermont	2	7	250.0	0.3	1.1	250.4
Total	**307**	**330**	**7.5**	**2.1**	**2.2**	**7.2**
Division 2: Middle Atlantic						
New Jersey	307	326	6.2	3.4	3.6	6.0
New York	784	766	-2.3	4.0	3.9	-2.5
Pennsylvania	208	200	-3.8	1.6	1.6	-3.9
Total	**1,299**	**1,292**	**-0.5**	**3.1**	**3.1**	**-0.7**
Division 3: East North Central						
Illinois	320	344	7.5	2.5	2.7	7.7
Indiana	108	116	7.4	1.6	1.8	7.1
Michigan	105	130	23.8	1.1	1.3	23.7
Ohio	156	143	-8.3	1.3	1.2	-8.5
Wisconsin	48	69	43.8	0.8	1.2	43.5
Total	**737**	**802**	**8.8**	**1.6**	**1.7**	**8.7**
Division 4: West North Central						
Iowa	54	38	-29.6	1.7	1.2	-30.0
Kansas	40	36	-10.0	1.4	1.2	-10.3
Minnesota	147	150	2.0	2.7	2.7	1.4
Missouri	80	93	16.3	1.3	1.5	15.9
Nebraska	38	33	-13.2	2.0	1.7	-13.8
North Dakota	15	9	-40.0	2.0	1.2	-41.3
South Dakota	8	17	112.5	0.9	2.0	111.2
Total	**382**	**376**	**-1.6**	**1.8**	**1.8**	**-2.1**
Division 5: South Atlantic						
Delaware	22	23	4.5	2.4	2.4	3.4
District of Columbia	32	33	3.1	4.8	4.9	1.2
Florida	595	602	1.2	3.0	3.0	-0.6
Georgia	335	322	-3.9	3.3	3.2	-5.0
Maryland	198	176	-11.1	3.3	2.9	-11.6
North Carolina	195	201	3.1	2.0	2.0	2.0
South Carolina	79	104	31.6	1.6	2.1	29.8
Virginia	198	213	7.6	2.4	2.5	6.9
West Virginia	13	10	-23.1	0.7	0.5	-22.9
Total	**1,667**	**1,684**	**1.0**	**2.7**	**2.7**	**-0.2**

TABLE 1. (*Continued*) Tuberculosis (TB) case counts and incidence, by U.S. Census division and state — United States, 2014 and 2015*

Census division/ state	No. reported TB cases			TB incidence per 100,000 persons†		
	2014	2015*	% change	2014	2015*	% change§
Division 6: East South Central						
Alabama	133	119	-10.5	2.7	2.4	-10.8
Kentucky	80	67	-16.3	1.8	1.5	-16.5
Mississippi	74	74	0.0	2.5	2.5	0.0
Tennessee	151	131	-13.2	2.3	2.0	-13.9
Total	**438**	**391**	**-10.7**	**2.3**	**2.1**	**-11.1**
Division 7: West South Central						
Arkansas	93	90	-3.2	3.1	3.0	-3.6
Louisiana	121	119	-1.7	2.6	2.5	-2.1
Oklahoma	59	67	13.6	1.5	1.7	12.6
Texas	1,269	1,334	5.1	4.7	4.9	3.2
Total	**1,542**	**1,610**	**4.4**	**4.0**	**4.1**	**2.9**
Division 8: Mountain						
Arizona	193	198	2.6	2.9	2.9	1.1
Colorado	64	73	14.1	1.2	1.3	12.0
Idaho	11	11	0.0	0.7	0.7	-1.2
Montana	6	9	50.0	0.6	0.9	48.6
Nevada	74	85	14.9	2.6	2.9	12.8
New Mexico	50	46	-8.0	2.4	2.2	-8.0
Utah	31	37	19.4	1.1	1.2	17.3
Wyoming	2	4	100.0	0.3	0.7	99.4
Total	**431**	**463**	**7.4**	**1.9**	**2.0**	**5.9**
Division 9: Pacific						
Alaska	62	67	8.1	8.4	9.1	7.9
California	2,134	2,137	0.1	5.5	5.5	-0.8
Hawaii	136	127	-6.6	9.6	8.9	-7.4
Oregon	77	76	-1.3	1.9	1.9	-2.7
Washington	194	208	7.2	2.7	2.9	5.6
Total	**2,603**	**2,615**	**0.5**	**5.0**	**5.0**	**-0.6**
Total U.S. Population	**9,406**	**9,563**	**1.7**	**2.9**	**3.0**	**0.9**

* TB case counts are based on provisional National Tuberculosis Surveillance System data as of March 4, 2016. Updated data will be available in CDC's annual TB surveillance report later this year (http://www.cdc.gov/tb/statistics/).

† CDC calculates state and national TB incidence by using the U.S. Census Bureau's July 1 midyear population estimates (http://www.census.gov/popest/data/national/totals/2015/index.html).

§ Percentage change in incidence is calculated on the basis of unrounded incidence for 2014 and 2015.

Natives (6.8 cases per 100,000). A total of 344 TB cases occurred among U.S.-born persons aged <15 years (0.6 cases per 100,000), representing 10.7% of all U.S.-born persons reported as having incident TB in 2015.

In 2015, among foreign-born persons with reported TB in the United States, Asians had both the highest case count (3,007 cases) and highest incidence (28.2 cases per 100,000 persons). The top five countries of origin for foreign-born persons with TB were Mexico (n = 1,250; 19.7%), the Philippines (n = 819; 12.9%), India (n = 578; 9.1%), Vietnam (n = 513; 8.1%), and China (n = 424; 6.7%). Together, these countries represent 45.2% of the foreign-born population in the United States (*4*), but accounted for 56.6% (3,584 cases) of all TB cases among foreign-born persons. Although Mexico-born persons accounted for the largest proportion of foreign-born persons reported with TB, their TB incidence in the United States (10.4 cases per 100,000) was lower than that among persons born in China (24.9 cases per 100,000), India (23.9 cases per 100,000), the Philippines (46.9 cases per 100,000), and Vietnam (47.8 cases per 100,000). From 2014 to 2015, the number of TB cases among Philippines-born persons grew from 755 to 819 (8.5% increase), and the number of TB cases among India-born persons grew from 479 to 578 (20.7% increase). The Philippines-born population in the United States grew from 1,639,286 to 1,747,287 (population growth of 6.6%), and the India-born population grew from 2,166,930 to 2,421,795 (population growth of 11.8%) (*4*).

TABLE 2. Tuberculosis (TB) case counts and incidence, by national origin and race/ethnicity — United States, 2012–2015*

U.S. population group†	2012		2013		2014		2015*	
	No. cases	Incidence per 100,000 persons§	No. cases	Incidence per 100,000 persons§	No. cases	Incidence per 100,000 persons§	No. cases	Incidence per 100,000 persons§
U.S.-born								
Hispanic	692	2.0	655	1.9	652	1.8	661	1.8
White, non-Hispanic	1,272	0.7	1,100	0.6	967	0.5	991	0.5
Black, non-Hispanic	1,345	4.0	1,250	3.6	1,183	3.4	1,144	3.3
Asian	120	2.0	151	2.4	137	2.1	141	2.1
American Indian/Alaska Native	145	6.8	125	5.7	117	5.2	141	6.8
Native Hawaiian/other Pacific Islander	51	8.4	44	6.1	83	12.4	88	12.7
Multiple or unknown race/ethnicity	33		37		38		35	
Total U.S.-born¶	**3,658**	**1.4**	**3,362**	**1.2**	**3,177**	**1.2**	**3,201**	**1.2**
Foreign-born								
Hispanic	2,096	11.5	2,039	11.2	2,093	11.2	2,024	10.3
White, non-Hispanic	297	3.7	322	4.2	279	3.6	258	3.4
Black, non-Hispanic	898	27.7	836	24.5	828	23.6	845	22.8
Asian	2,845	29.9	2,848	29.0	2,852	28.7	3,007	28.2
Multiple, other,** or unknown race/ethnicity	142	—	146	—	171	—	201	—
Total foreign-born¶	**6,278**	**15.9**	**6,191**	**15.6**	**6,223**	**15.4**	**6,335**	**15.1**
Unknown national origin	**4**	**—**	**9**	**—**	**6**	**—**	**27**	**—**
Total United States¶	**9,940**	**3.2**	**9,562**	**3.0**	**9,406††**	**2.9††**	**9,563***	**3.0**

* Provisional National Tuberculosis Surveillance System data as of March 4, 2016. Updated data will be available in CDC's annual TB surveillance report later this year (http://www.cdc.gov/tb/statistics/).

† Persons of Hispanic ethnicity might be of any race or multiple races; non-Hispanic persons are categorized by race.

§ Overall national TB incidence calculated by using July 1 midyear population estimates from the U.S. Census Bureau (http://www.census.gov/popest/data/national/totals/2015/index.html). The Current Population Survey (http://dataferrett.census.gov) provided the population denominators for incidence according to national origin and race/ethnicity.

¶ Incidence provided in the text and this table is rounded. Year-to-year TB incidence per 100,000 U.S.-born population declined 7.0% from 2011 to 2012 (from 1.46 to 1.36 cases), declined 8.8% in 2013 (to 1.24 cases), declined 6.0% in 2014 (to 1.16 cases), and increased 0.3% in 2015 (to 1.17 cases). TB incidence per 100,000 foreign-born population declined 5.9% from 2011 to 2012 (from 16.91 to 15.90), declined 1.8% in 2013 (to 15.61 cases), declined 1.1% in 2014 (to 15.43 cases), and declined 2.3% in 2015 (to 15.08 cases).

** Other includes a total of four persons reported as American Indians/Alaska Natives (one in 2012, two in 2013, zero in 2014, one in 2015) and a total of 51 as Native Hawaiians/other Pacific Islanders (12 in 2012, 17 in 2013, eight in 2014, 14 in 2015).

†† The provisional number of TB cases for 2014 was 9,412, which corresponded to an incidence of 2.951 per 100,000 persons (i.e., rounded up to 3.0); the updated number of TB cases for 2014 is 9,406, which corresponds to an incidence of 2.949 cases per 100,000 persons (i.e., rounds down to 2.9).

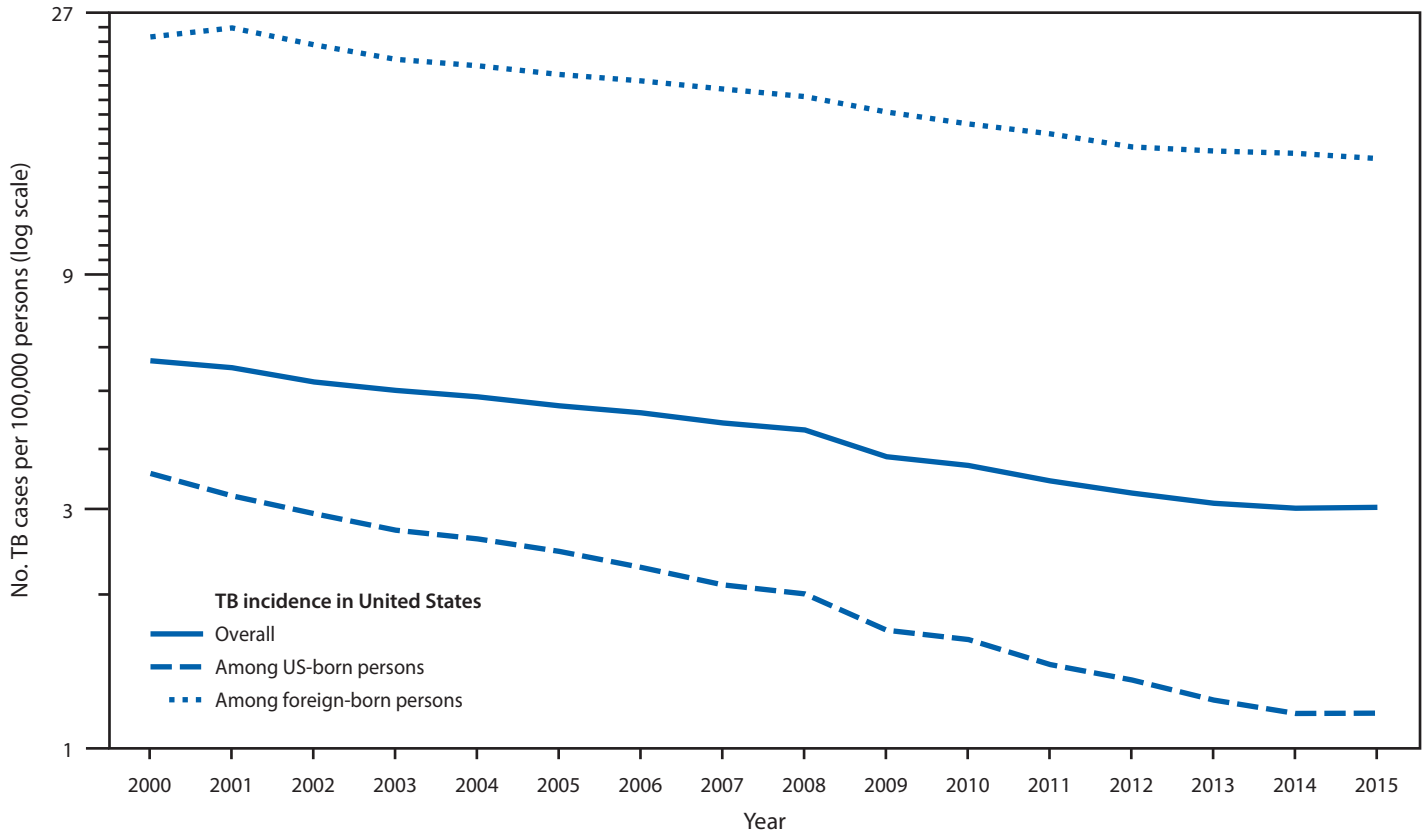
Ninety-six TB cases occurred among foreign-born persons aged <15 years (6.0 cases per 100,000), representing 1.5% of all foreign-born persons reported as having incident TB in the United States in 2015.

Discussion

After 2 decades of annual declines (*1*), TB incidence in the United States has leveled at approximately 3.0 new cases per 100,000 persons. Epidemiologic modeling suggests that even if the previously observed annual declines in the United States had been sustained, TB elimination, defined as <1 TB case per one million persons annually (*5*), would not occur by the end of this century (*6*). The determinants of this leveling in TB incidence are not yet clear; further evaluation of available data is required to understand the causes of this trend.

The 1985–1992 TB resurgence was attributed to the human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome epidemic, immigration from countries with higher TB incidence, and increased TB transmission within the United States (*7*). However, the proportion of TB patients coinfected with HIV has declined substantially in the United States (5.6% of TB patients in 2015 with known HIV status were coinfected, including 7.8% of the U.S.-born), and TB incidence among U.S. foreign-born persons has continued to decline (*1*). In contrast, the stabilization of TB incidence among U.S.-born persons (Table 2), together with evidence provided by molecular genotyping of TB cases (*1*,*8*), demonstrates that TB transmission within the United States continues to occur. The continued occurrence of TB cases among U.S.-born children is further corroboration, because TB disease in a young child is a sentinel event representing recent infection (*5*,*7*). Substance abuse, incarceration, and homelessness associated with TB outbreaks highlight some of the complicated case management work required on the health department frontlines of TB control (*9*).

FIGURE. Tuberculosis (TB) incidence overall and among U.S.- and foreign-born persons, by year — United States, 2000–2015



* Provisional National Tuberculosis Surveillance System data as of March 4, 2016. Updated data will be available in CDC's annual TB surveillance report later this year (http://www.cdc.gov/tb/statistics/).

Effective TB control requires diagnosing cases as early as possible during the illness, thus allowing earlier airborne precautions and curative treatment to interrupt transmission (*5*,*9*). An early diagnosis for a patient with infectious TB also permits a timely contact investigation, which is essential to detect and prevent additional TB cases. Recently infected contacts, particularly children, benefit greatly from treatment to avert progression to active TB disease (*5*,*7*). TB prevention, timely diagnosis, and treatment completion are necessary for all groups, but especially for groups disproportionally affected by TB. Since 2003, TB incidence among Native Hawaiians/other Pacific Islanders and American Indians/Alaska Natives has remained high despite declining incidence among Hispanics and non-Hispanic Asians, whites, and blacks (*1*).

Two thirds of all U.S. TB cases occur among foreign-born persons, often years after arrival (*10*), which is consistent with disease progression following years of untreated latent TB infection. Epidemiologic modeling indicates that eliminating the threat of TB in the United States will require additional strategies to reduce TB in the countries of origin and expand treatment of latent TB infection among the foreign-born persons (*6*). Despite recent declines in TB incidence among foreign-born persons, these persons continue to have a higher risk for TB, reflecting the importance of further intensifying the global battle against TB and underscoring the importance of interventions to screen and treat U.S.-bound permanent immigrants and refugees for TB disease. TB elimination will require both global interventions and a substantial improvement in larger scale identification and treatment of latent TB infection among foreign-born persons living in the United States (*6*), consistent with CDC's strategic plan for the national elimination of TB (http://www.cdc.gov/tb/about/strategicplan.htm).

TB is preventable and curable, and its elimination would have widespread health, economic, and social benefits. Resuming declines in TB incidence will require more comprehensive public health approaches, both globally and domestically. These include increasing case detection and cure rates globally, reducing TB transmission in institutional settings such as health care settings and correctional facilities, and increasing detection and treatment of preexisting latent TB infection among the U.S. populations most affected by TB. Finally, more emphasis should be placed on interrupting the relatively limited, but persistent, ongoing TB transmission (e.g., among persons experiencing homelessness) in the United States, as well

Summary

What is already known about this topic?

Uniform national reporting of tuberculosis (TB) cases in the United States began in 1953. During 1993–2012, the annual incidence of reported TB cases has always been ≥0.2 cases per 100,000 persons lower than the previous year.

What is added by this report?

Preliminary data for 2015 indicate an incidence of 3.0 cases per 100,000 persons, approximately the same incidence as during 2013 and 2014. After 2 decades of declining incidence, progress toward TB elimination in the United States appears to have stalled.

What are the implications for public health practice?

Resuming declines in TB incidence in the United States will require intensification of efforts both domestically and globally. More emphasis should be placed on strengthening U.S. systems for detecting and treating latent TB infection and interrupting TB transmission, as well as accelerating reductions in TB globally.

as continuing research on better means to diagnose, treat, and prevent TB infection and disease.

This report is limited to provisional National Tuberculosis Surveillance System data as of March 4, 2016. Updated data will be available in CDC's annual TB surveillance report (*1*) later this year (http://www.cdc.gov/tb/statistics/), although the final TB case count is not expected to change substantially.

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Tuberculosis Among Temporary Visa Holders Working in the Tourism Industry — United States, 2012–2014

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Tuberculosis (TB) is a contagious bacterial disease of global concern. During 2013, an estimated nine million incident TB cases occurred worldwide (*1*). The majority (82%) were diagnosed in 22 countries, including South Africa and the Philippines, where annual incidence was 860 TB cases per 100,000 persons and 292 TB cases per 100,000 persons, respectively (*1*). The 2013 TB incidence in the United States was three cases per 100,000 persons (*2*). Under the Immigration and Nationality Act, TB screening is required for persons seeking permanent residence in the United States (i.e., immigrants and refugees), but it is not routinely required for nonimmigrants who are issued temporary visas for school or work (*3*). A portion of the U.S. tourism industry relies on temporary visa holders to accommodate seasonal and fluctuating demand for service personnel (*4*). This report describes three foreign-born persons holding temporary visas who had infectious TB while working at tourist destinations in the United States during 2012–2014. Multiple factors, including dormitory-style housing, transient work patterns, and diagnostic delays might have contributed to increased opportunity for TB transmission. Clinicians in seasonally driven tourist destinations should be aware of the potential for imported TB disease in foreign-born seasonal workers and promptly report suspected cases to health officials.

Case Reports

Case 1. In March 2012, a man aged 25 years from the Philippines arrived in Arizona to work as a cafeteria attendant in a National Park Service lodge. The rural county in which the park is located typically reported five TB cases each year. The man resided in an employee cabin with two roommates. He had been treating himself intermittently with levofloxacin for neck swelling that began in January 2012; in February 2012, he experienced fever, night sweats, and cough. After working in Arizona for 3 months (March–May 2012), he relocated to Minnesota in June to visit family and find other work. Five days after his arrival in Minnesota, he was admitted to a hospital. He received a diagnosis of acid-fast bacilli (AFB) smear-positive pulmonary TB disease and disseminated TB of the neck, lung, liver, and spleen. Cultures grew *Mycobacterium tuberculosis* that was resistant to isoniazid and levofloxacin, and the genotype was not previously reported in the United States (*2*). His TB risk factors included previous residence in the Philippines.

During the ensuing TB contact investigation, 10 employees in Arizona were evaluated; 19 additional contacts, including the patient's two roommates, were no longer working at the park and unable to be contacted for a TB evaluation. Among the 10 employees who received a tuberculin skin test (TST), one female had a positive result, but no TB symptoms and a normal chest radiograph; health professionals determined that she probably had latent TB infection before the recent exposure and did not recommend further testing. The remaining nine persons had negative TST results (induration <5 mm) at initial and follow-up testing. In Minnesota, three household contacts were identified, including one foreign-born household contact who had a history of treated latent TB infection, and two persons who had negative TST results. No additional active TB cases were identified among screened contacts, and no genotype-matching cases had been reported in the United States as of March 18, 2016 (*5*).

Case 2. In April 2012, a man aged 49 years from the Philippines arrived in Michigan for temporary employment at resort A on Mackinac Island, which has a population of approximately 500 persons and had not reported a TB case since 1995. The man worked as a butcher at the resort restaurant and lived in a dormitory with one roommate. When the resort closed for the season in October 2012, he relocated to California. In May 2013, he was admitted to a hospital with cough, weight loss, night sweats, chills, fever, and shortness of breath; he reported that his symptoms had begun while working in Michigan. He received a diagnosis of AFB smear-positive pulmonary TB disease. The *M. tuberculosis* isolate was susceptible to first-line TB medications isoniazid, rifampin, ethambutol, and pyrazinamide. The genotype was well-established in other parts of the United States (i.e., >100 previous TB cases since 2005), but had not been seen before in Michigan. His TB risk factors included diabetes and previous residence in the Philippines.

A contact investigation was initiated on Mackinac Island during the 2013 tourist season. Thirty-six (53%) of 68 employees who had had contact with the index patient during 2012 had left the state and did not return; health authorities in the jurisdictions to which they traveled were notified. The remaining 32 (47%) employees had returned to the island and were evaluated for TB. Nineteen (59%) had either a negative TST

or interferon-gamma release assay (IGRA) result (*6*). The 13 (41%) persons with positive IGRA results were all temporary employees from the Philippines; none had a chest radiograph consistent with active disease and all were considered to have latent TB infection. In California, five family members of the patient were contacts: one had a history of treated latent TB infection, and one of the remaining four had a positive IGRA result and was considered to have latent TB infection. No additional active TB cases were identified among screened contacts. In 2014, a genotype-matching TB case was diagnosed in another Filipino immigrant in Michigan; no epidemiologic association between the two patients is evident.

Case 3. In April 2014, a woman aged 21 years from South Africa arrived for temporary employment at resort B on Mackinac Island. She worked as a housekeeper and laundry attendant and lived in a dormitory with three roommates. In June–July 2014, she sought medical care five times at both a local emergency department and a clinic, where she reported worsening signs and symptoms of pneumonia that included shortness of breath, cough, and weight loss. A different physician examined the patient at each visit. In August 2014, she received a diagnosis of AFB smear–positive pulmonary TB disease. The *M. tuberculosis* isolate was resistant to isoniazid and the genotype was not previously reported in the United States. Her TB risk factors included contact in December 2013 with a relative with active TB disease, and previous residence in South Africa.

IGRAs were performed on all 26 resort employees who had contact with the index patient. Fourteen (54%) had positive IGRA results, including 11 temporary employees from South Africa, two U.S.-born year-round employees, and one Jamaica-born seasonal employee. None had a history of known TB infection and all were considered to have latent TB infection. One U.S.-born contact who initially tested negative by IGRA had a positive IGRA result at the 8-week follow-up examination, providing evidence of recent TB infection. No additional active TB cases were identified among screened contacts, and no genotype-matching cases had been reported in the United States as of March 18, 2016.

Discussion

This report documents three incident cases of infectious TB among foreign-born, temporary workers. In addition to vacation resorts and national parks, sectors of the U.S. tourism industry that rely on temporary visa holders to accommodate the fluctuating and seasonal demand for service personnel include amusement parks, ski lodges, and cultural or historical sites (*4*). Although the cases described here were counted for the purposes of national TB surveillance, TB incidence among temporary visa holders is difficult to estimate, in part because TB cases are not included in official case counts when a person is in the United States for <90 days (*2*). Despite this exclusion, approximately two thirds of TB cases in the United States occur among foreign-born persons, and their corresponding TB incidence in 2014 (15.4 cases per 100,000 population) was >10-fold higher than that among U.S.-born persons (1.2 cases per 100,000 population) (*2*).

TB screening is not routinely required for persons entering the United States as nonimmigrants (*3*). During 2013, the U.S. Department of State granted temporary admission to approximately 600,000 students and 400,000 temporary workers and their families (*7*). The length of stay for these students and temporary workers ranged from months to years, depending on visa type (*7*,*8*).

This case series was consistent with a 2005–2006 cross-sectional study that determined seeking care for TB symptoms to be the primary reason for the TB diagnosis among temporary visa holders (*9*). Lack of TB awareness among clinicians can contribute to delayed diagnoses. Diagnostic and treatment delays extend the patient's infectious period, thereby allowing increased opportunities for transmission. In the third case report, the patient had sought medical attention five times for worsening signs and symptoms, including weight loss, cough, and shortness of breath, yet TB remained undiagnosed for 3 months.

TB contact investigations among temporary workers are also challenging. Tourism industries have substantial turnover in seasonal employment. In two of the case reports described here, the majority of contacts, including roommates at high risk for TB, had left the state or country at the time contact investigations were initiated, and could not be reached. However, secondary TB cases within the United States as a consequence of any of these three cases seem unlikely, given the nationally unique *M. tuberculosis* genotypes for cases 1 and 3, and birth in the Philippines as the only known commonality between case 2 and other TB cases with that genotype.

The findings in this report are subject to at least two limitations. First, because the majority of infected contacts were temporary employees from high TB incidence countries where the contacts might have been previously infected, interpreting TB test results was challenging. A positive TB test does not necessarily mean that transmission occurred as a result of exposure to the TB patients described here. Second, these three recent TB cases among foreign-born temporary workers might not be representative of all cases; no generalizations can be made regarding all temporary workers.

Increased awareness concerning the potential for active TB among foreign-born temporary workers is needed. Public

Summary

What is already known about this topic?

Tuberculosis (TB) is a global disease; the majority of TB cases in the United States occur among foreign-born persons. TB screening requirements exist for persons seeking permanent status in the United States (i.e., immigrants and refugees), but not for temporary visitors (e.g., students and workers).

What is added by this report?

Three foreign-born persons holding temporary visas had infectious TB while working at U.S. tourist destinations. Multiple factors, including dormitory-style housing, transient work patterns, and diagnostic delays might have contributed to increased opportunity for TB transmission.

What are the implications for public health practice?

Public health authorities might consider providing TB education for employers and clinicians in seasonally driven tourist destinations. Employers might consider implementing TB screening for temporary workers from countries with a high incidence of TB cases. All employers should encourage employees to seek medical attention early during the course of an illness. Clinicians should be aware of the potential for imported TB disease in foreign-born seasonal workers and promptly report suspected cases to health officials to limit TB transmission.

health authorities might consider providing TB education for employers and clinicians in the tourism sector. Employers might consider implementing TB screening for temporary workers from countries with a high incidence of TB cases, and all employers should encourage employees to seek medical attention early during the course of an illness. Clinicians should promptly recognize TB signs and symptoms and inquire about previous travel to or residence in countries with a high incidence of TB cases.

A medical exam that includes TB screening is required for persons seeking permanent residence in the United States, including immigrants and refugees, and CDC has the U.S. regulatory oversight of the overseas medical examination process (42 CFR, Part 34) (*3*). As part of the National Action Plan for Combating Antibiotic Resistant Bacteria initiative, CDC is working with interagency partners to expand premigration TB screening beyond immigrants and refugees (*10*). Until global TB elimination is reached, increased TB awareness among clinicians serving foreign-born temporary workers, followed by prompt treatment and public health follow-up after active TB is diagnosed, is necessary to reduce the potential for TB transmission.

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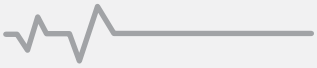
CDC'S Fight Against

GLOBAL TUBERCULOSIS

2 BILLION
PEOPLE INFECTED WITH TB
(1/3 OF WORLD POPULATION)

9.6 MILLION
SICK WITH ACTIVE TB

480,000
NEW CASES OF
MULTIDRUG-RESISTANT TB
(MDR TB)



1.5 MILLION
DEATHS

EVERY YEAR

PREVENTABLE, TREATABLE, CURABLE

43 MILLION
LIVES **SAVED** (2000-2014)
(Source: WHO, 2015)

CDC'S IMPACT

CDC is working with partners to identify new approaches to improve TB prevention and care worldwide.

- **Developing new strategies** to find and cure TB.
- **Strengthening surveillance systems** to identify and target hot spots.
- **Transforming the World's Approach** to diagnosing TB among those with HIV.
- **Informing the global roadmap** to find, cure and prevent TB in children.
- **Establishing best practices** to end TB transmission in health facilities.
- **Leading research** to improve treatment for drug-resistant TB.