

TB NOTES



TB Notes 22018

Notes from the Director

Dear Colleague:

One of the most important events for people working in tuberculosis (TB) elimination is World TB Day. World TB Day is observed annually on March 24, to commemorate Dr. Robert Koch's announcement of his discovery of *Mycobacterium tuberculosis*, the bacillus that causes TB. On March 24, and the days leading up to it, CDC and many others share successes in TB prevention and control and raise awareness of the challenges that hinder our progress. The U.S. theme for World TB Day 2018 is "Wanted: Leaders for a TB Free United States. We can make history. End TB." The Division of Tuberculosis Elimination (DTBE) World TB Day activities highlight our past achievements, present efforts, and future aspirations.

A total of 9,093 TB cases were reported in the United States in 2017 according to [preliminary data](#) from the CDC National TB Surveillance System. This 2017 provisional case count is the lowest number of TB cases on record in the United States; however, our current strategies will not be sufficient to reach the goal of TB elimination in the United States. Eliminating TB in the United States will require a sustained effort to control TB disease, and expanding testing and treatment of latent TB infection to prevent the development of TB disease.

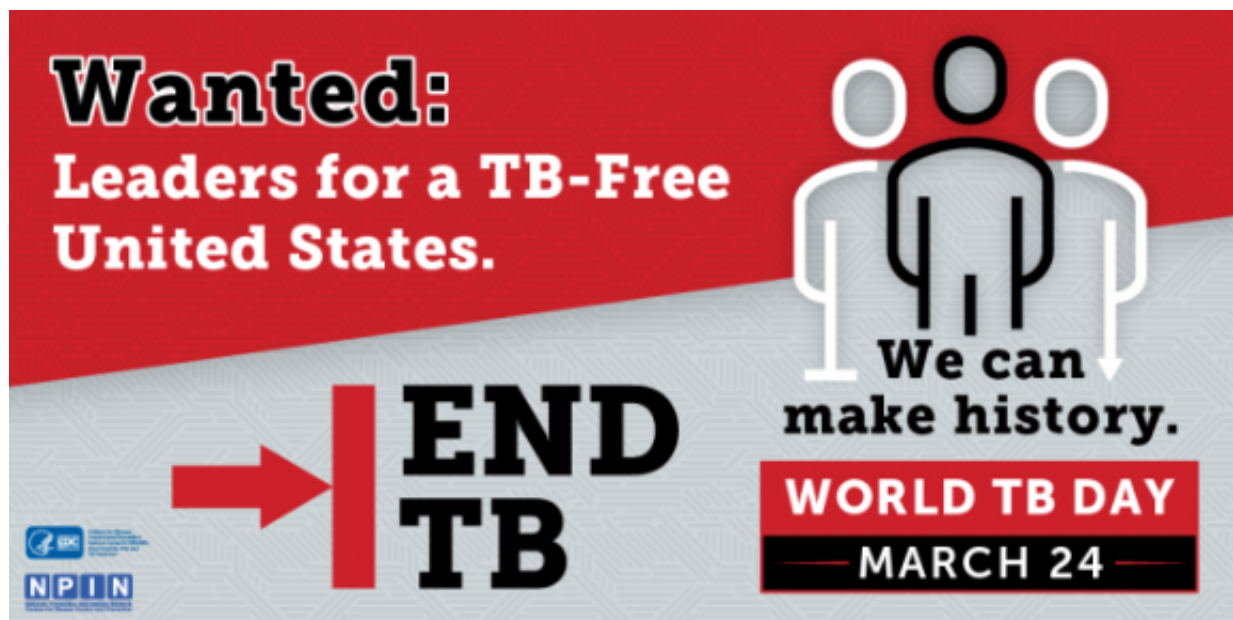
Achieving TB elimination will also require the continued hard work and dedication from those working on the state and local levels. One of the goals of this year's World TB Day campaign is to highlight this great work through the [2018 CDC U.S TB Elimination Champions project](#). In keeping with this year's theme, we are highlighting organizations and individuals who are leading the effort to collaborate with public health partners, health care providers, and community organizations. We encourage you to read and share their stories with your partners and colleagues. Additional CDC [resources](#) are available in English and Spanish, including up-to-date information on TB, promotional materials, and other tools you can use as part of your World TB Day events and activities.

I hope all of you will have a chance to plan or take part in your own World TB Day activities. Thank you for your work and commitment to eliminate TB in the United States.

Philip LoBue, MD, FACP, FCCP
Director
Division of Tuberculosis Elimination
National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention

Communications, Education, and Behavioral Studies Branch Updates + -

World TB Day Resources

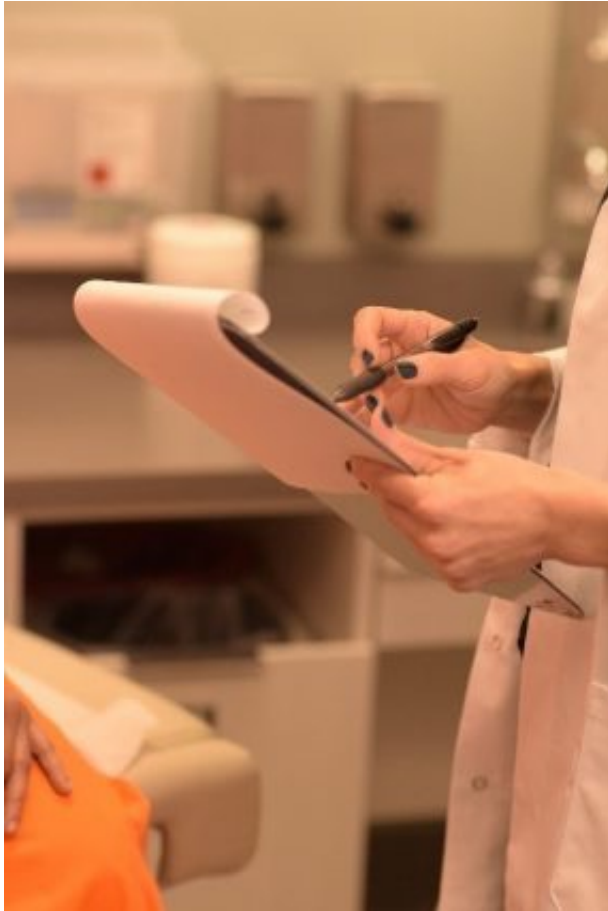


March 24 is World TB Day and this year's theme is "Wanted: Leaders for a TB-Free United States. We can make history. End TB." CDC's World TB Day [website](#) is a one-stop-shop for resources and information. U.S. World TB Day [posters](#) are available in two different sizes ([8.5x11](#) and [11x17](#)) to download and print. [Graphics](#) in a variety of sizes are also available for use in digital and print materials. Check out all the activities happening across the United States on the [World TB Day Activities Map](#).

We encourage everyone to sign up for our World TB Day Thunderclap. Thunderclap is a tool that lets a message be heard when we say it together. Think of it as an "online flash mob." Join CDC's World TB Day Thunderclap, and share the End TB message March 23 at 2:00 p.m. EDT/11:00 a.m. PDT, spreading an idea through Facebook, Twitter, and Tumblr that cannot be ignored. We need 100 supporters for the Thunderclap to take effect, so please visit bit.ly/2G4GGMU before March 23 to sign up and learn more.

Submitted by Leeanna Allen, MPH, DTBE

TB in Corrections



Are you a TB Correctional Liaison, program manager, or TB controller concerned about TB in correctional settings?

TB in Corrections: Improving Collaborations, Reaching toward Elimination

will be a breakout session on Wednesday, May 23 at the 2018 National TB Conference in Palm Springs, CA. The National Tuberculosis Controllers Association/National Tuberculosis Nurse Coalition (NTCA/NTNC) Corrections Committee and California TB Controllers Association have designed the session to provide information including:

- Workgroup strategies for the implementation of Interferon Gamma Release Assays (IGRAs) and 12-Dose Regimen for Latent TB Infection (3HP)
- Updates from U.S. Immigration and Customs Enforcement (ICE)
- Information on correctional liaisons and their role in improving communication and collaboration with correctional facilities

If you are unable to attend the session and are interested in learning more about TB in corrections, please visit the [NTCA/NTNC Corrections Committee website](#).

Submitted by Molly Dowling, MPH, DTBE

TB Patient Education Brochure

This past month, DeKalb County (GA) Public Library staff and volunteers helped the Communications, Education, and Behavioral Studies Branch (CEBSB) by reviewing and providing input on a draft TB patient education brochure. The brochure is designed to help people who have latent TB infection make a decision about taking treatment to prevent TB disease.



Participants provided valuable feedback on the readability, clarity, and layout of the draft material. The results from this activity help CEBSB staff ensure the brochure's alignment with health literacy principles, and improve its effectiveness in promoting shared decision-making between patients and health care providers so patients can make an informed decision about their TB treatment options.

CEBSB would like to thank Laura Hauser, the Literacy Services Officer, for the DeKalb County Public Library, for taking the lead in arranging the interviews. Ms. Hauser's dedication and leadership in literacy services for almost two decades promotes a strong, literate DeKalb community, and her willingness to collaborate with DTBE is greatly appreciated.

Submitted by John Parmer, PhD, MPH, DTBE

Surveillance, Epidemiology, and Outbreak Investigations Branch Updates 

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9,093 TB CASES*

reported in the U.S. in 2017

**Provisional data*

We can make **history.**  **END
TB**

In recognition of World TB Day, DTBE has published [preliminary TB surveillance data](#) for 2017, documenting 9,093 new cases of TB in the United States in 2017. This is the lowest case count on record and corresponds with a TB rate of 2.8 per 100,000 persons, a rate 2.5% lower than reported in 2016. This decrease is consistent with the modest decline seen over the past several years. Public health priorities for TB elimination in the United States include developing comprehensive and innovative approaches to diagnosing, treating, and monitoring latent TB infection; continued engagement by the United States in global TB control efforts; and sustained efforts to prevent TB transmission in the United States, particularly in congregate settings.

Submitted by Rebekah J. Stewart, MSN, MPH, DTBE; Clarisse A. Tsang, MPH, DTBE

Laboratory Branch Updates

TB Laboratory Services in Puerto Rico After Hurricane Maria

On September 20, 2017, Hurricane Maria made landfall in Puerto Rico, as a Category 4 storm, with sustained winds of 155 mph and gusts up to 190 mph destroying roads and bridges, causing flooding and landslides, and destroying the island's power grid and telecommunication system. Hurricane Maria was the strongest hurricane in PR in 80 years, with estimated losses of more than 95 billion dollars. The Puerto Rico Department of Health (PRDOH) facilities, including the PRDOH Institute of Laboratories in San Juan and the island's health system, suffered significant damage. The Puerto Rico TB laboratory's biological safety cabinets were damaged and with the loss of power, were inoperable. Reagents, equipment, kits, and specimens were also damaged.

On September 25, within five days of the hurricane, plans were developed to assess program and laboratory damages. With over 500 open hurricane shelters and concerns regarding the

risk of transmission, it was crucial for TB laboratory services to be restored. Conference calls were held with DTBE to explore available options to support the PRDOH TB laboratory. With assistance from the DTBE Laboratory Branch and Field Services Branch; CDC's Emergency Operations Center; CDC Foundation; and Association of Public Health Laboratories, a shipping logistics plan was developed. TB specimens were shipped from Puerto Rico to CDC, a triage site for shipment of specimens to Georgia, Florida, and Virginia public health laboratories (PHLs), to support diagnostic and confirmatory testing. Between October 2017 and early February 2018, PRDOH has received, packaged, and shipped 231 TB specimens to CDC for referral to the three state PHLs that tested and reported results efficiently using communication strategies of fax and secure File Transfer Protocol (sFTP).

With the assistance and support from many partners, Puerto Rico has been able to overcome challenges and implement a short-term plan to ensure prompt identification of infectious TB patients, thus reducing the risk of transmission and continuing to offer patient care and public health interventions.

This work is highlighted in the MMWR article, [Initial Public Health Laboratory Response After Hurricane Maria – Puerto Rico, 2017](#). The Georgia, Virginia, and Florida public health laboratories have been recognized as [2018 CDC U.S. TB Elimination Champions](#) for their work.

Submitted by Olga Joglar, MHSA, DTBE

Clinical Research Branch Updates

The Latest News from the TB Trials Consortium (TBTC)

[TBTC Study 31](#) (also known as ACTG A5349; “Rifapentine-containing treatment shortening regimens for pulmonary tuberculosis: A randomized, open-label, controlled phase 3 clinical trial”) continues to enroll. As of December 7, 2017, the study had 1,522 participants, 61% of target enrollment. The AIDS Clinical Trials Group (ACTG) network is collaborating with TBTC, contributing substantially to enrollment. Twenty-two ACTG sites and 9 TBTC sites are open for enrollment. Study 31 is evaluating a novel 4-month regimen for active TB based on the use of daily, high-dose rifapentine.

[TBTC Study 32](#) (“Prospective, randomized, blinded Phase 2 pharmacokinetic/pharmacodynamic study of the efficacy and tolerability of levofloxacin in combination with optimized background regimen (OBR) for the treatment of MDR-TB; Opti-Q”) was implemented in sites in Cape Town, South Africa, and in Lima, Peru. Enrollment and follow-up for the study are complete. The study is currently in the analysis phase. Last month an article on the trial design was published in *Trials*:

Bouton, T. C., Phillips, P. P., Mitnick, C. D., Peloquin, C. A., Eisenach, K., Patientia, R. F., Diacon, A. H. (2017).

[An optimized background regimen design to evaluate the contribution of levofloxacin to multidrug-resistant tuberculosis treatment regimens: study protocol for a randomized controlled trial.](#) *Trials*, 18(1), 563.

The main report from [TBTC Study 33](#) (“An evaluation of adherence to LTBI treatment with 12 doses of once weekly rifapentine and isoniazid given as self-administered versus directly-observed therapy: iAdhere”) has also been recently published in the Annals of Internal Medicine.

Belknap R, Holland D, Feng PJ, Millet JP, Caylà JA, Martinson NA, Wright A, Chen MP, Moro RN, Scott NA, Arevalo B, Miró JM, Villarino ME, Weiner M, Borisov AS; TB Trials Consortium iAdhere Study Team. [Self-administered Versus Directly Observed Once-Weekly Isoniazid and Rifapentine Treatment of Latent Tuberculosis Infection: A Randomized Trial](#). Ann Intern Med. 2017 Nov 7. doi: 10.7326/M17-1150. [Epub ahead of print]. PMID: 29114781.

Submitted by Barbara DeCausey, MPH, MBA, DTBE

Data Management, Statistics, and Evaluation Branch Updates + -

TB Education and Training Network (TB ETN)/ Program Evaluators Network (PEN) Webinar Summary

Meet the DMSEB Program Evaluation and Health Economics Team!



The Mission of the DTBE Program Evaluation and Health Economics Team is to collaborate with internal and external partners to identify and promote the use of the best available evidence for the planning and implementation of TB elimination strategies. The team strives to support the program evaluation efforts of grantees for the CDC TB Cooperative Agreements, identify evidence-based practices and policies for TB control through conducting health services research, and develop tools to build professional knowledge and

capacity for program evaluation and applied health economics. The team consists of seven full time staff.

Our TB Program Evaluation Consultants provide support to 61 grantees on their Program Evaluation plans.

Awal Khan (aek5@cdc.gov) is the Program Evaluation Consultant for AL, AR, Baltimore, DC, DE, FL, GA, LA, MD, MS, NC, PA, Philadelphia, SC, TN, PR, VA, VI, WV. Awal also serves as the DTBE Health Equity Coordinator.

Rachel Yelk Woodruff (ryelkwoodruff@cdc.gov) is the Program Evaluation Consultant for AL, AZ, CA, Houston, FL, Los Angeles, MA, NM, RI, San Diego, San Francisco. Rachel also serves as the CDC Technical Advisor for the TB Program Evaluator's Network (TB PEN) and prepares the annual State Indicators Report.

Kai Young (kyoung2@cdc.gov) is the Program Evaluation Consultant for Chicago IA, IL, IN, KS, KY, MI, MN, MO, NE, OH, OK, ND, SD, WI. Kai is also involved in the management of the National TB Indicators Project (NTIP) and the Funding Formula.

Laura Vonnahme (lvonnahme@cdc.gov) is the Program Evaluation Consultant for CO, CT, ID, ME, MT, NH, NJ, NY, NYC, NV, OR, UT, VT, WA, WY. Laura also manages the data collection and monitoring of TB contact investigation activities through the Aggregated Reports for Program Evaluation (ARPE).

Maureen Kolasa (mkolasa@cdc.gov) is the Program Evaluation Consultant for AK, HI, AS, FM, GU, MH, MP AND PW. She also serves as the Program Evaluation and Health Economics Team Lead.

Garrett Asay (GBeelerAsay@cdc.gov) is the team's lead health economist. He is currently working on the cost effectiveness of electronic technologies to remotely monitor TB treatment, targeted testing and treatment for latent TB infection, and the utilization and cost of TB diagnostic tests.

Suzanne Marks (smarks@cdc.gov) is a senior epidemiologist with expertise in health economics. She is currently leading DTBE's involvement in the CDC/NCHHSTP Epidemiologic and Economic Modeling Agreement (NEEMA). Her wide range of health services research efforts include research on drug resistant TB, HIV/TB, and the cost and cost-effectiveness of TB diagnosis and treatment.

The Program Evaluation and Health Economics team strives to be an effective and useful resource within CDC and by external partners.

Submitted by Rachel Yelk Woodruff, MPH, DTBE

New CDC Publications + -

January 2018

Click ES, Murithi W, Ouma GS, McCarthy K, Willby M, Musau S, Alexander H, Pevzner E, Posey J, Cain KP. [Detection of Apparent Cell-free M. tuberculosis DNA from Plasma](#). Sci Rep 2018 Jan 12; 8(1):645. doi: 10.1038/s41598-017-17683-6. PMID: 29330384.

February 2018

Beavers SF, Pascopella L, Davidow AL, Mangan JM, Hirsch-Moverman YR, Golub JE, Blumberg HM, Webb RM, Royce RA, Buskin SE, Leonard MK, Weinfurter PC, Belknap RW, Hughes SE, Warkentin JV, Welbel SF, Miller TL, Kundipati SR, Lauzardo M, Barry PM, Katz DJ, Garrett DO, Graviss EA, Flood JM; Tuberculosis Epidemiologic Studies Consortium. [Tuberculosis Mortality in the United States: Epidemiology and Prevention Opportunities](#). Ann Am Thorac Soc 2018 Feb 28. doi: 10.1513/AnnalsATS.201705-405OC. [Epub ahead of print.] PMID: 29490150.

Moro RN, Scott NA, Vernon A, Tepper NK, Goldberg SV, Schwartzman K, Leung CC, Schluger NW, Belknap RW, Chaisson RE, Narita M, Machado ES, Lopez M, Sanchez J, Villarino ME, Sterling TR. [Exposure to Latent Tuberculosis Treatment during Pregnancy: The PREVENT TB and the iAdhere Trials](#). Ann Am Thorac Soc 2018 Feb 2. doi: 10.1513/AnnalsATS.201704-326OC. [Epub ahead of print.] PMID: 29393655.

Mullins J, Lobato MN, Bemis K, Sosa L. [Spatial clusters of latent tuberculous infection, Connecticut, 2010-2014](#). Int J Tuberc Lung Dis 2018 Feb 1;22(2):165-170. doi: 10.5588/ijtld.17.0223. PMID: 29506612.

Weiner M, Gelfond, J Johnson-Pais TL, Engle M, Peloquin CA, Johnson JL, Sizemore EE, Mac Kenzie WR; Pharmacokinetics/Pharmacodynamics Group of Tuberculosis Trials Consortium. [Elevated Plasma Moxifloxacin Concentrations and SLC01B1 g.-11187G>A Polymorphism in Adults with Pulmonary Tuberculosis](#). Antimicrob Agents Chemother 2018 Feb 20. pii: AAC.01802-17. doi: 10.1128/AAC.01802-17. [Epub ahead of print.] PMID: 29463526.

March 2018

Althomsons SP, Hill AN, Harrist AV, France AM, Powell KM, Posey JE, Cowan LS, Navin TR. [Statistical Method to Detect Tuberculosis Outbreaks among Endemic Clusters in a Low-Incidence Setting](#). Emerg Infect Dis 2018 Mar;24(3):573-575. doi: 10.3201/eid2403.171613. PMID: 29460749.

Chorba T. [Peace, Liberty, Mycobacteria, and Tuberculosis Mortality](#). Emerg Infect Dis 2018 Mar; 24(3):611-2.

Concepción-Acevedo J, Patel A, Luna-Pinto C, et al. [Initial Public Health Laboratory Response After Hurricane Maria — Puerto Rico, 2017](#). MMWR Morb Mortal Wkly Rep 2018;67:333-336. DOI: <http://dx.doi.org/10.15585/mmwr.mm6711a5>.

Stewart RJ, Tsang CA, Pratt RH, Price SF, Langer AJ. [Tuberculosis — United States, 2017](#). MMWR Morb Mortal Wkly Rep 2018;67:317-323. DOI: <http://dx.doi.org/10.15585/mmwr.mm6711a2>.

[World TB Day](#) — March 24, 2018. MMWR Morb Mortal Wkly Rep 2018;67:317. DOI:

<http://dx.doi.org/10.15585/mmwr.mm6711a1>