History of World TB Day | TB | CDC

History of World TB Day

On March 24, 1882, Dr. Robert Koch announced the discovery of *Mycobacterium tuberculosis*, the bacteria that causes tuberculosis (TB). During this time, TB killed one out of every seven people living in the United States and Europe. Dr. Koch's discovery was the most important step taken toward the control and elimination of this deadly disease. A century later, March 24 was designated World TB Day: a day to educate the public about the impact of TB around the world.

TB Chronicles

As World TB Day 2018 approaches, CDC will honor TB elimination leaders and history-makers through the **TB Chronicles**. The TB Chronicles will depict TB milestones that highlight both how far we have come and how far we have to go towards ending TB.

Until TB is eliminated, World TB Day won't be a celebration. But it is a valuable opportunity to educate the public about the devastation TB can spread and how it can be stopped.

Names for TB

What is in a name?

Image of Hippocrates

Johann Schonlein coined the term “tuberculosis” in the 1834, though it is estimated that *Mycobacterium tuberculosis* may have been around as long as 3 million years!

Tuberculosis (TB) was called “phthisis” in ancient Greece, “tabes” in ancient Rome, and “schachepheth” in ancient Hebrew. In the 1700s, TB was called “the white plague” due to the paleness of the patients. TB was commonly called “consumption” in the 1800s even after Schonlein named it tuberculosis. During this time, TB was also called the “Captain of all these men of death.”

During the Middle Ages, TB of the neck and lymph nodes was called “scofula.” Scofula was believed to be a different disease from TB in the lungs.

Today, our names for TB tell us where TB is located (pulmonary, extrapulmonary) and how to treat it (drug-susceptible, drug-resistant, multidrug resistant, and extensively drug-resistant.)

CDC and many organizations around the world are working towards a future where we call TB “history.”

TB in Animals

TB is not just a disease found in humans.

Engraved illustration of bison.

TB is a disease that infects animals as well as humans. Archeologists have found TB in the bones of ancient bison in Wyoming. These bison lived over 17,000 years ago.

TB can still be found in many animals in the United States including cattle and deer. Approximately 1 million cattle are tested each year for TB. The cattle at most risk for TB are those that come into contact with wildlife that carry TB (like deer). It is possible for some animals to transmit TB to humans.

TB in Humans

TB has been part of the human experience for a long time.

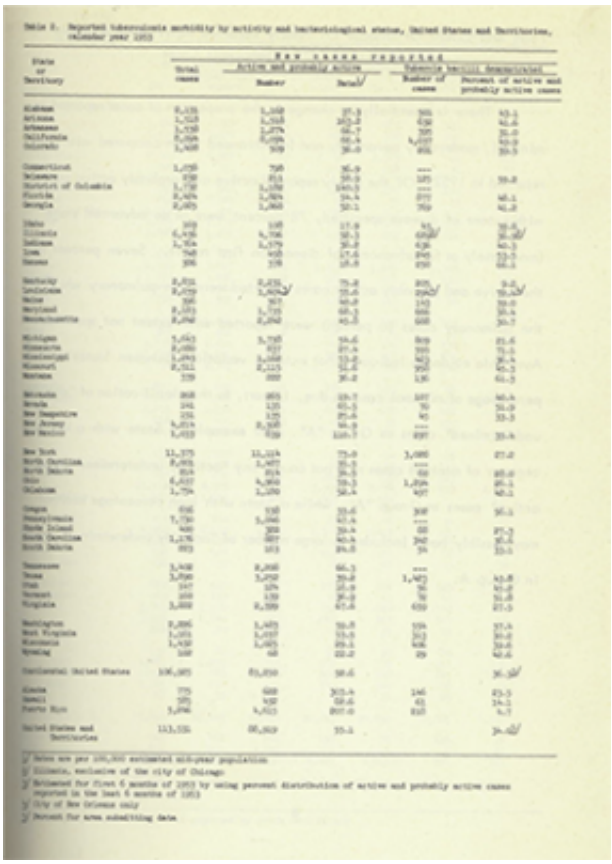

Image of 1953 CDC TB Surveillance Report.

TB in humans can be traced back to 9,000 years ago in Atlit Yam, a city now under the Mediterranean Sea, off the coast of Israel. Archeologists found TB in the remains of a mother and child buried together. The earliest written mentions of TB were in India (3,300 years ago) and China (2,300 years ago).

Throughout the 1600-1800s in Europe, TB caused 25% of all deaths. Similar numbers occurred in the United States. In 1889, Dr. Hermann Biggs convinced the New York City Department of Health and Hygiene that doctors should report TB cases to the health department, leading to the first published report on TB in New York City in 1893. CDC published nationwide TB data for the first time in 1953, reporting 84,304 cases of TB in the United States.

CDC publishes TB surveillance data on an annual basis. In 2016, the most recent data available, there were 9,272 reported cases of TB disease in the United States. TB disease is a nationally notifiable disease, however latent tuberculosis infection is not reported to CDC. CDC is researching ways to monitor latent TB infection on a national basis. CDC has a goal of TB elimination in the United States. To reach this goal CDC and partners are intensifying the efforts to treat latent tuberculosis infection in addition to TB disease.

The following resources were used in the creation of the TB Chronicles

American Lung Association. The History of Christmas Seals. http://www.christmasseals.org/history/ Accessed Feb 13 2018.

Barberis, I., Bragazzi, NL., Galluzzo, M., Martini, M.. The history of tuberculosis: from the first historical records to the isolation of Koch's bacillus. *J Prev Med Hyg.* 2017; 58:E9-E12

Daniel, Thomas M. The history of tuberculosis. *Respiratory Medicine.* 2006; 100:862-1870

Daniel, Thomas M. Florence Barbara Seibert and purified protein derivative. *Int J Tuberc Lung Dis.* 2007; 13(3):281-282

Daniel, TM and Iversen, PA. Hippocrates and tuberculosis. *Int J Tuberc Lung Dis.* 2015; 19(4):373–374

Eddy, Jared J. The ancient city of Rome, its Empire, and the spread of tuberculosis in Europe. *Tuberculosis*. 2015; 95:S23-S28

Fogel, Nicole. Tuberculosis: A disease without boundaries. *Tuberculosis* 2015; 95:527-531

Frith, John. History of Tuberculosis. Part 1 – Phthisis, consumption and the White Plague. *Journal of Military and Veteran's Health*. 2014; 22(2):29-35

Institute of Medicine. *Ending Neglect: The Elimination of Tuberculosis in the United States*. Washington D.C., United States: National Academy Press; 2000

Lougheed, Kathryn. *Catching Breath: The Making and Unmaking of Tuberculosis.* London, Great Britain: Bloomsbury Sigma Publishing; 2017

Murray, JF., Schraufnagel, DE., Hopewell, PC.. Treatment of Tuberculosis: A Historical Perspective. *Ann Am Thorac Soc*. 2015; 12(12):1749-1759

Patterson, S., Drewe, JA., Pfeiffer, DU, Clutton-Brock, TH,. Social and environmental factors affect tuberculosis related mortaility in wild meerkats. *Journal of Animal Ecology>* 2017; 86:442-450.

Perrin, Pascale. Himan and tuberculosis co-evolution: An integrative view. *Tuberculosis. 2015; 95:S112-S116*

Reibman, J., Rom, WN.. The History of the Bellevue Hospital Chest Service (1903-2015). *AnnalsATS.* 2015; 12(10):1438-1446

Riva, Michele A. From milk to rifampicin and back again: history of failures and successes in the treatment for tuberculosis. *Journal of Antibiotics.* 2014; 67:661-665

Rothschild, BM, Martin, LD, Lev, G, Bercovier, H, Bar-Gal, GK, Greenblatt,C, Donoghue, H, Spigelman, M, Brittain, D. *Mycobacterium tuberculosis* Complex DNA from an Extinct Bison Dated 17,000 Years before the Present. *Clinical Infectious Diseases.* 2001; 33:305–11

Ruggerio, Dan. A Glimpse at the Colorful History of TB: Its Toll and Its Effect on the U.S. and the World. TB Notes 2000. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2000 Atlanta GA.

Towey, Francesca. Historical Profile Leon Charles Albert Calmette and Jean-Marie Camille Guerin. *The Lancet.* 2015; 3:186-187

Tucker, Abigail. The Great New England Vampire Panic. Smithsonian.com. https://www.smithsonianmag.com/history/the-great-new-england-vampire-panic-36482878/ . Accessed Feb 2018.

United States Department of Agriculture Animal and Plant Health Inspection Service. Bovine Tuberculosis Disease Information. https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/animal-disease-information/cattle-disease-information/sa_tuberculosis/ct_bovine_tuberculosis_disease_information. Accessed Feb 15 2018.