



Philadelphia TB Newsletter

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WORLD TB DAY EDITION

Spring 2013

Tuberculosis Control Program
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The Philadelphia TB Newsletter is a quarterly publication that is intended to be a resource for clinicians, infection control personnel, and laboratories who diagnose, treat, and/or report tuberculosis (TB) in Philadelphia. It provides treatment updates and recommendations, reviews local and national TB epidemiology, and presents case studies.

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World TB Day 2013

Christina Dogbey, MPH
Epidemiologist, Tuberculosis Control Program

World TB Day is held annually on March 24th in order to raise awareness about the threat of TB and the measures needed to control the disease. World TB Day also commemorates the discovery of the TB bacillus by Dr. Robert Koch in March 1882. At that time, TB killed one in seven people in the United States and Europe. Although this disease can be cured and controlled, TB still remains the second leading cause of death among infectious diseases in the world.

According to the World Health Organization (WHO) 2012 Global Tuberculosis Report, the global healthcare community continues to make significant progress toward eliminating tuberculosis as a public health threat. The Millennium Development goal to halt and reverse the TB epidemic by 2015 has already been reached. Locally, in 2012 the Philadelphia Tuberculosis Control Program reported the lowest number of Tuberculosis cases in its history. Yet, despite this impressive progress, each year there are nearly nine million new cases of TB, 13% of which are co-infected with HIV. This translates into 1.4 million TB deaths with 430,000 of them among the HIV infected.

Drug-resistant TB, in particular



Multidrug Resistant TB (MDR-TB) continues to present significant challenges to the goal of TB elimination, as cases of MDR-TB in high burden countries continued to rise and reached nearly 60,000 in 2011 (WHO, 2012).

World TB Day provides an opportunity to communicate TB-related problems and solutions and to support local TB control efforts. The Philadelphia Department of Public Health and our partners are committed to controlling TB by identifying active TB Cases in the city and assuring that these persons complete a course of curative treatment by evaluating persons in close contact to those with active TB to assure they are not infected and, if infected, by offering preventative treatment, and by screening those at increased risk for exposure to TB. In the United States, the theme for World TB Day is **“Stop TB In My Lifetime!”**

To commemorate World TB Day

(Continued on page 4)

Famous People Who Had TB

Henry David Thoreau–
Author

Voltaire–*Author*

John Calvin–
Religious Figure

Charles IX of France– *King
of France 1560-74*

James Monroe– *5th
President of the United
States*

Eleanor Roosevelt–
*Former First Lady of the
United States*

Bishop Desmond Tutu–
Humanitarian

Alexander Graham Bell–
Inventor

Anders Celsius– *Creator of
Celsius Temperature Scale*

Immanuel Kant–
Philosopher

Florence Nightingale–
Founder of Modern Nursing

Dmitri Mendeleev–
*Chemist and Creator of the
Periodic Table of Elements*

Edvard Munch– *Artist*

Ho Chih Minh– *Vietnamese
Revolutionary*

Cat Stevens– *Musician*

Frederic Chopin– *Composer*

Paul Gauguin– *Artist*

John Henry “Doc” Holiday–
American Gunslinger

George Orwell– *Author*

The Bronte Family–
Authors

John Keats– *Poet*

Isoniazid and Tubersol Supply Shortages

Dan Dohony, MPH

CDC Senior Public Health Advisor, Tuberculosis Control Program

National Shortage of Isoniazid (INH)

On January 28, 2013, the Philadelphia Department of Public Health released a Health Alert regarding the shortage of both 100 mg and 300 mg INH tablets.

INH is one of the most important drugs used to treat tuberculosis disease and latent tuberculosis infection. Shortages of INH may require that tuberculosis patients be treated with alternate drug regimens, alternate dosing schedules, and/or increased tablet numbers. All of these changes have the potential to impact patient compliance and treatment success rates, and to promote emergence of drug-resistance, if treatment choices are not made astutely.

As of March 1, 2013, the three major manufacturers of INH in the U.S. (VersaPharm, Sandoz and Teva) are reporting varied availability timelines of INH 100 mg and 300 mg. To find up to date information on the availability of INH visit

<http://www.fda.gov/Drugs/DrugSafety/DrugShortages/> and click on “Isoniazid”.

TB control is available for consultations on adjusting medication regimens due to the INH shortage. The health alert offers alternative regimens for treating both clinically active tuberculosis and latent tuberculosis infection (LTBI) if INH is not available. To access the health alert, please visit the Health Information Portal at <https://hip.phila.gov> and click on “Health Alerts” in the side bar menu.

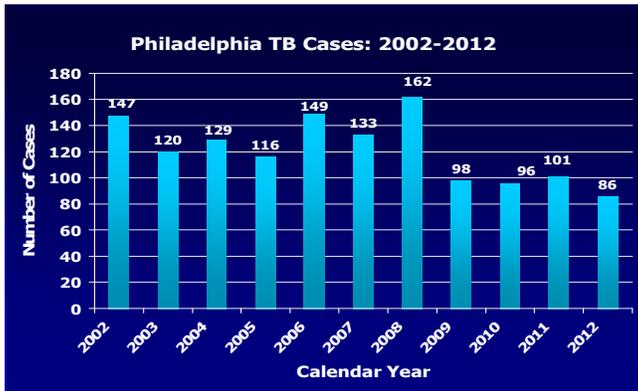
Supply Interruption of Tubersol® (PPD Solution)

Sanofi-Pasteur recently informed CDC about a supply interruption for TUBERSOL®. Current demand on the 10 test presentation size has placed the company in a position where it perceives that it will temporarily need to allocate the test. Here’s the announcement from Sanofi-Pasteur: Subject: TUBERSOL® (Tuberculin Purified Protein Derivative [Mantoux]) 10-Test Supply Allocations TUBERSOL is manufactured in 2 presentation sizes: 10 tests per presentation and 50 tests per presentation. TUBERSOL Diagnostic Antigen in the 50-test presentation is experiencing a supply interruption until late-spring 2013 due to a temporary delay in production. As a result, increased demand has limited the availability of TUBERSOL Diagnostic Antigen in the 10-test presentation. To allow us to continue to supply the market with product, we are placing allocations on customer orders which will go into effect immediately.

Allocations will be based on a percentage of historical usage for customers who order an average of 10 doses or more per month, and these allocations are expected to be in effect until late March. A follow-up communication will be sent in late March when we expect to lift these allocations.

Tuberculosis Surveillance Update: 2012

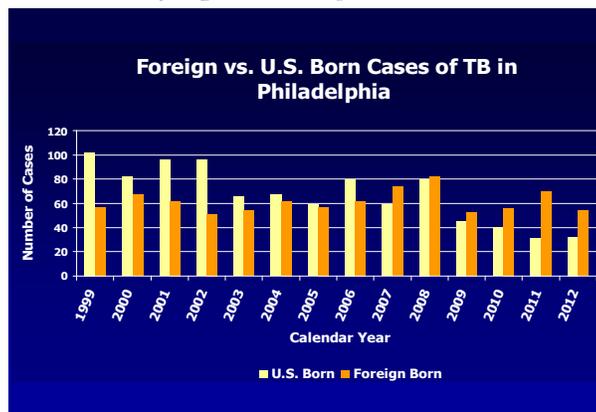
Dan Dohony, MPH
 CDC Public Health Advisor, Tuberculosis Control Program



In 2012 the Philadelphia TB Control Program reported 86 confirmed cases of TB. This represents a 15% decrease from the previous year when 101 new cases of TB were reported. This continues a decreasing trend in the number of TB Cases in Philadelphia over the last ten years and is well below the period from 2001 to 2008 in which cases fluctuated between approximately 120 and 160 cases of TB per year. Philadelphia TB cases represent 58% of the TB cases reported in the Southeast Pennsylvania Health District and 37% of the cases in the Commonwealth of Pennsylvania for the period.

Nearly two thirds of the cases were male (63%), while patients between the ages of 45-65 years had the largest proportion of cases at 43%. There was only one case among children less than 5 years of age. African Americans continue to be disproportionately affected by TB and in 2012 accounted for nearly 44% percent (38/86) of the reported cases. Of the thirty eight non-Hispanic African Americans identified with TB in 2012, nearly twenty-nine percent (11/38) were born outside the US.

TB Cases among Foreign-Born



populations decreased both in numbers and as a proportion of total cases last year, but still accounted for more than half of TB cases for the sixth year in a row. During 2012, nearly 63% (54/86) of cases were identified among foreign-born persons. The fifty-four (54) foreign-born TB cases reported in 2012 originated from 27 different countries and all 6 World Health Organization (WHO) regions. Western Pacific countries represented over 46% (25/54) of the foreign-born cases, with Vietnam (12), China (4) and the Philippines (4) indicated most often as the country of origin. These numbers illustrate the changing profile of TB in Philadelphia and the ongoing need to recruit and retain outreach workers who effectively address the language and cultural needs of our diverse patient population.

Just over ten percent of our cases were resistant to at least one anti-tuberculosis agent, with half of them being resistant to Isoniazid. The World Health Organization has identified increasing drug resistance as a disturbing global trend in managing and treating TB patients.

The long term decrease in TB cases has been attributed to a number of factors including the adoption of Directly Observed Therapy (DOT) as the standard of care for all TB cases, the opening of the Flick Memorial Clinic to provide DOT and clinical services to TB patients, and better training of TB Control Program staff in the medical and epidemiologic follow-up necessary to control TB in Philadelphia. The Program has also benefitted from ongoing coordination and collaboration with the State TB Control Program and District

Health Centers to share information, coordinate training opportunities, implement better program evaluation practices and assist with TB Case Management and Follow-up of active cases and contacts who relocate or live outside of Philadelphia. Despite these successful efforts, Federal, State and Local budget cuts over the past seven years threaten the ongoing success of the program as reduced staffing levels, fewer training opportunities

and less direct services to those at risk for TB may result in increased number of cases in the future.



Philadelphia Department of Public Health

Tuberculosis Control Program

500 S. Broad Street

Philadelphia, PA 19146

Phone: 215-685-6873 or 215-685-6744

Reporting

All TB cases and suspected cases must be reported to the TB Control Program within 24 hours of identification. To report a case or suspect, call 215-685-6873. Reports can also be faxed to 215-685-6477 or submitted through the Pennsylvania National Electronic Disease Surveillance System (PA-NEDSS). Reporting information is available on the TB Control website at www.phila.gov/health, the Health Information Portal (<https://hip.phila.gov/xv/>) or can be obtained by calling 215-685-6873.

World TB Day 2013, continued

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2013, the Tuberculosis Control Program is issuing the annual World TB Day edition of the Philadelphia TB Control Newsletter. Included in this issue are surveillance updates on TB in Philadelphia, information about requirements for reporting suspected and confirmed TB cases, and more. For more information on the Philadelphia TB Control Program, please visit our website at:

<http://www.phila.gov/health//DiseaseControl/WorldTBDay.html>

<http://www.phila.gov/health/DiseaseControl/TB.html>

For more information about World TB Day, please visit the World Health Organization at: www.worldtbday.org

Totally Drug Resistant Tuberculosis

**Christina Dogbey, MPH
Epidemiologist, Tuberculosis Control Program**

Multi Drug Resistant Tuberculosis (MDR-TB) is defined as having tuberculosis that is resistant to both Isoniazid and Rifampin, the two principal drugs in anti-tuberculosis treatment regimens. Extensively Drug Resistant Tuberculosis (XDR-TB) describes TB isolates resistant to the same drugs as MDR-TB, plus at least one fluoroquinolone. The Centers for Disease Control and Prevention published data in 2005 and 2006 documenting the worldwide emergence of XDR-TB, and in 2010, Philadelphia

had the only case of XDR-TB reported in the United States that year.

In 2011, a report from India described four patients with tuberculosis for whom drug susceptibility testing showed resistance to all 12 of the drugs examined (Cegielski P, et al 2012). Those who published the report suggested the term “totally drug resistant” or “super extensively drug resistant” tuberculosis. However, both the World Health Organization and the Centers for Disease Control and Prevention are carefully examining the possibility of adopting the term as a new class of drug resistance.

According to the World Health Organization, “Total drug resistance” is not clearly defined for tuberculosis. The number of anti-TB drugs used in sensitivity testing varies widely between laboratories (Cegielski, P, et al 2012), and while consensus has been reached on drug sensitivity testing methods for MDR and XDR-TB, they have yet to be established for this category (WHO, 2012). In addition, the global capacity for drug sensitivity testing for M. tuberculosis is still limited. Finally, there is a desire to avoid the idea that patients with “totally drug resistant” tuberculosis cannot or should not be treated. On a promising note, there are several new anti-tuberculosis drugs under development that could be the new class of drugs to treat TB, which would render the “totally drug resistant” label inapplicable.

1. Cegielski P, Nunn P, Kurbatova EV, Weyer K, Dalton TL, Wares DF, et al. Challenges and controversies in defining totally drug-resistant tuberculosis. *Emerg Infect Dis* [Internet]. 2012 Nov [19 March 2013]

<http://dx.doi.org/10.3201/eid1811.120526>

2. <http://www.who.int/tb/challenges/mdr/tdrfaqs/en/index.html>