



111 North County Farm Road
Wheaton, IL 60187
(630) 682-7400
www.dupagehealth.org

Linda Kurzawa
President, Board of Health

Karen Ayala, MPH
Executive Director

Rashmi Chugh, MD, MPH
Medical Officer

General Information

Communicable Disease
and Epidemiology
(630) 221-7553

Environmental Health
(630) 682-7400

Immunizations
(630) 682-7400

Sexually
Transmitted Diseases
(630) 221-7553

HIV/AIDS
(630) 221-7553

Tuberculosis
(630) 221-7522

School Health
(630) 221-7300

Travel Clinic
(630) 682-7400

Animal Care & Control
(630) 407-2800

Please contact
Communicable Disease
and Epidemiology at
(630) 221-7553
with suggestions
or to be added to the
distribution list.

The purpose of this two-page surveillance update is to promote the control and prevention of **communicable disease (CD)** by providing clinically relevant information and resources to healthcare professionals in DuPage County.



Under the Microscope *Mycobacterium tuberculosis*

For questions or to report a suspect or known case of TB, please call the TB Clinic at (630) 221-7522.

Each year, **World TB Day** is observed on **March 24**, commemorating the date in 1882 when Dr. Robert Koch announced his discovery of *Mycobacterium tuberculosis*, the bacterium that causes tuberculosis (TB). World TB Day provides an opportunity to raise awareness about TB-related problems and solutions and to support worldwide TB control efforts. For the second consecutive year, the U.S. slogan for the 2015 observance is "Find TB. Treat TB. Working together to eliminate TB."¹

Statistics: In 2014, a total of 9,412 new cases of TB were reported in the U.S., with an incidence rate of 3.0 cases per 100,000 population. Although the total number of TB cases continues to decline, 2014 showed the smallest decline in incidence in over a decade.¹ **In DuPage County, 34 active TB cases were reported in 2014, with an incidence rate of 3.68 cases per 100,000 population** (second highest in Illinois, following the incidence rate in Chicago of 5.21 cases per 100,000 population). Statewide, 320 active TB cases were reported in Illinois in 2014, with an incidence rate of 2.49 cases per 100,000 population. (Source: Illinois Department of Public Health.)

Racial/ethnic minorities continue to be disproportionately affected by TB within the U.S. The rate among foreign-born persons in the U.S. in 2014 was 13.4 times higher than among U.S.-born persons. Asians continue to be the racial/ethnic group with the largest number of TB cases. **Compared with non-Hispanic whites, the TB rate among Asians was 28.5 times higher, whereas rates among non-Hispanic blacks and Hispanics were each eight times higher.** Four states (California, Texas, New York, and Florida), representing approximately one third of the U.S. population, accounted for half of all TB cases reported in 2014. **Continued progress toward TB elimination in the U.S. will require focused TB control efforts among populations and in geographic areas with disproportionate burdens of TB.**¹

In 2014, 55.3% of foreign-born persons with TB in the U.S. originated from five countries: Mexico (1,268 TB cases [20.6%]), the Philippines (745 [12.1%]), Vietnam (498 [8.1%]), India (472 [7.7%]), and China (420 [6.8%]).¹ Among DuPage County cases provisionally reported in 2014, 23.5% were U.S.-born; of the foreign-born cases, 76.9% originated from India, Mexico, Myanmar (formerly Burma), and the Philippines. **The majority of cases of TB disease that occur in foreign-born patients result from reactivation of latent *M. tuberculosis* infection (LTBI) rather than newly acquired infection.**¹

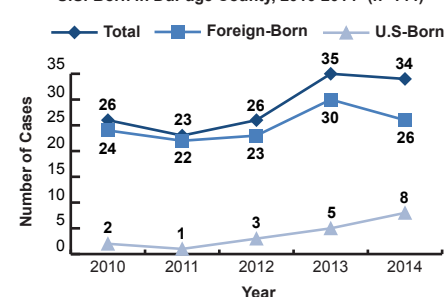
TB Testing: TB testing should be performed in persons with **active TB symptoms** and **contacts of persons with active TB disease**. In addition, TB testing should also occur in persons at **higher risk for having latent TB infection**, such as those who 1) are **homeless**, 2) have **lived in a country with a high prevalence of TB**, 3) have **injected illegal drugs**, 4) spent time personally or professionally in a **setting associated with higher rates of TB transmission** (e.g., prison or health care institutions), or 5) have **HIV infection** or another **condition that weakens the immune system** and puts them at high risk for active TB disease (e.g., prolonged use **immunosuppressive drug therapy**).²

Dispelling the Myth: Testing for TB in BCG-Vaccinated Persons

Many foreign-born persons have been BCG-vaccinated. BCG vaccination may cause a false-positive reaction to the tuberculin skin test (TST), which may complicate decisions about prescribing treatment. **Despite this potential for BCG to interfere with test results, the TST and TB blood tests (interferon-gamma release assays or IGRAs) are not contraindicated for persons who have been vaccinated with BCG.**^{2,3} In addition, TB blood tests, unlike the TB skin tests, are **not affected by prior BCG vaccination** and are not expected to give a false-positive result in persons who have received prior BCG vaccination.²

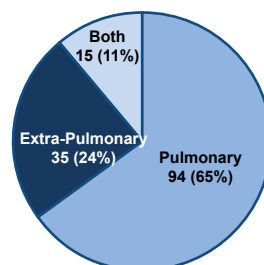
Treatment and Prevention: The record low number of cases in recent years can largely be attributed to **Directly Observed Therapy (DOT)**, a program to make sure those with TB complete their full medication regimen.⁴ Therapy often involves health department staff meeting regularly with patients who have TB to watch them take their medications. Fewer cases of TB are also due to identification of contacts of persons with infectious TB disease and testing them for LTBI.⁴ **Focused treatment of LTBI also is needed to prevent TB in all groups at high risk.**¹

Reported Cases of Active Tuberculosis by Foreign-Born vs. U.S.-Born in DuPage County, 2010-2014* (n=144)



Source: Illinois-National Electronic Disease Surveillance System
*2014 data are provisional

Reported Cases of Active Tuberculosis in DuPage County by Major Site of Disease, 2010-2014* (n=144)



Source: Illinois-National Electronic Disease Surveillance System
*2014 data are provisional

References:

1. www.cdc.gov/mmwr/pdf/wk/mm6410.pdf
2. www.cdc.gov/tb/topic/testing/default.htm
3. www.cdc.gov/tb/publications/factsheets/testing/IGRA.htm
4. www.dph.illinois.gov/news/known-act-treat-eliminate-tuberculosis

