



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.



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

Linda Kurzawa
President, Board of Health

Maureen McHugh
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 or
ebarajas@dupagehealth.org
to send suggestions
or to be added to the
distribution list.



Under the Microscope *Mycobacterium tuberculosis*

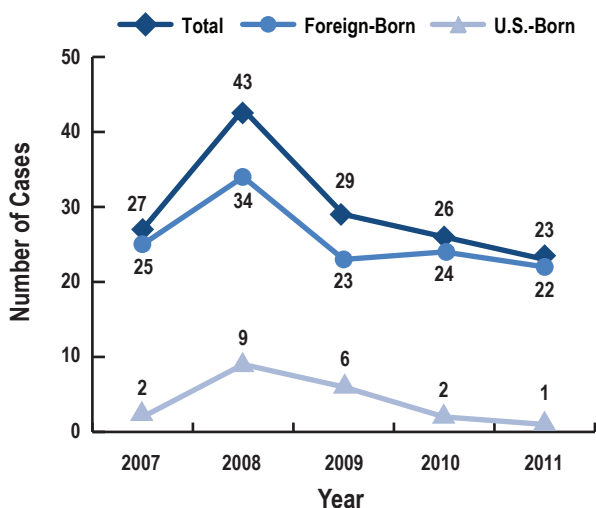
For questions or to report a suspect or known case of TB, please call the TB Clinic at (630) 221-7522.

March 24 is World TB Day, which commemorates the date in 1882 when Dr. Robert Koch announced his discovery of *Mycobacterium tuberculosis*, the bacillus that causes tuberculosis (TB), a leading cause of death from infectious disease worldwide. World TB Day provides an opportunity to raise awareness about TB-related problems and solutions and to support worldwide TB control efforts. The U.S. slogan for the 2012 observance is Stop TB in My Lifetime.^{1,2} It's estimated that 2 billion people — *one third of the people in the world* — are infected with *M. tuberculosis*. Each year, nearly 9 million people in the world become sick with TB disease, and almost 1.5 million deaths are attributed to TB.²

Statistics: Despite the continued decline in TB cases and rates since 1993 in the U.S., the 2011 rate of 3.4 per 100,000 population (10,521 cases reported) has not achieved the 2010 goal of TB elimination (less than one case per 1,000,000) established in 1989.¹ Illinois ranks fifth in the nation for the highest number of tuberculosis cases, with 359 cases of active tuberculosis reported in 2011.³ The Illinois case rate for 2011 is 2.8 cases per 100,000 persons, and the DuPage County case rate for 2011 is 2.5 cases per 100,000 persons (23 cases reported).

Although TB cases and rates decreased among both foreign-born and U.S.-born persons in 2011, foreign-born persons and U.S.-born racial/ethnic minorities continue to be affected disproportionately.¹ Following the national trend, the majority of TB cases in Illinois are among individuals who were born in foreign countries where TB is common, such as Mexico, India and the Philippines.³

Reported Cases of Active Tuberculosis by Foreign-Born vs. U.S.-Born in DuPage County, 2007-2011 (n=148)



Source: Illinois-National Electronic Disease Surveillance System

TB Testing: Clinicians, laboratorians, and public health departments must remain vigilant to guard against the resurgence of TB. 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).⁴

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.^{4,5} In addition, TB blood tests (interferon-gamma release assays or IGRAs), 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.⁴

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. Fewer cases of TB are also due to identification of contacts of persons with infectious TB disease and testing (and treating, as indicated) them for Latent Tuberculosis Infection (LTBI).³

As published by CDC in December 2011, an innovative preventive therapy regimen has been developed that will dramatically shorten treatment for persons with LTBI. Referred to as the 12-dose regimen, it contains two very effective TB drugs, isoniazid and rifapentine. Each medication is given once weekly for 12 weeks under DOT, which means that the swallowing of each dose of medicine is observed by a health worker. The new regimen is recommended as an equal alternative to the 9-month isoniazid 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).^{2,6}

During 2007–2011, a total of 28 persons associated with a homeless shelter in neighboring Kane County received a diagnosis of TB disease. This outbreak demonstrates the association between homelessness and outbreaks of TB. It also highlights the need for aggressive and sustained TB control and prevention efforts, including prioritization of testing and treatment for latent TB infection among homeless persons.¹

References:

1. www.cdc.gov/mmwr/pdf/wk/mm6111.pdf
2. www.cdc.gov/features/WorldTBDay/
3. www.idph.state.il.us/public/press12/3.22.12_World_TB_Day.htm
4. www.cdc.gov/tb/topic/testing/default.htm
5. www.cdc.gov/tb/publications/factsheets/testing/IGRA.htm
6. www.cdc.gov/tb/topic/treatment/ltni.htm

DUPAGE COUNTY HEALTH DEPARTMENT
CASES¹ OF REPORTABLE DISEASES*

* Last updated by the Illinois Department of Public Health in March 2008

CD REVIEW
Volume 8, No. 3 March 2012

Vaccine Preventable Diseases	Report Within	2012		2011		2010		2009		2008		Median	
		Feb	Jan - Feb	Jan - Feb	Total	Jan - Feb	Total	Jan - Feb	Total	Jan - Feb	Total	Jan - Feb	Total ('08-'11)
Chickenpox (varicella)	24 hrs	5	15	8	82	15	95	24	146	47	236	15	120.5
Diphtheria	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Haemophilus influenzae, invasive	24 hrs	2	3	2	15	2	7	1	11	0	6	2	9
Hepatitis A	24 hrs	0	0	2	9	1	3	1	6	2	11	1	7.5
Hepatitis B	7 days	1	1	0	1	0	4	3	8	0	3	0	3.5
Hepatitis B (carriers)	7 days	6	13	11	111	15	108	26	127	29	128	15	119
Influenza, deaths in < 18 yrs old	7 days	0	0	0	0	0	0	0	1	0	0	0	0
Influenza ICU admissions	24 hrs	1	1	18	24	0	3	NR	NR	NR	NR	1	13.5
Measles (rubeola)	24 hrs	0	0	0	0	0	0	1	1	0	14	0	0.5
Mumps	24 hrs	0	1	2	4	0	2	0	2	1	2	1	2
Neisseria meningitidis, invasive	24 hrs	0	0	0	2	0	1	2	6	0	4	0	3
Pertussis (whooping cough)	24 hrs	20	58	25	267	5	92	4	26	1	13	5	59
Poliomyelitis	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Rubella	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Streptococcus pneumoniae, invasive disease, in those < 5 yrs old	7 days	1	1	4	13	2	8	2	8	1	6	2	8
Tetanus	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Other Communicable Diseases													
Anaplasmosis ²	7 days	0	0	0	3	0	0	0	0	0	0	0	0
Anthrax	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Botulism, foodborne	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Botulism, other	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Brucellosis	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
California encephalitis ³	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Cholera	24 hrs	0	0	0	0	0	0	0	0	0	1	0	0
Creutzfeldt-Jakob disease	7 days	0	0	1	2	0	0	0	0	0	0	0	0
Cryptosporidiosis	7 days	0	0	0	5	0	5	1	5	0	1	0	5
Cyclosporiasis	7 days	0	0	0	0	0	0	0	1	0	0	0	0
Dengue fever ³	7 days	0	0	1	1	1	4	0	4	0	0	0	2.5
Ehrlichiosis ²	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Enteric E. coli infections ⁴	24 hrs	0	2	4	21	2	18	2	12	1	21	2	19.5
Giardiasis	7 days	2	7	6	54	11	49	7	40	7	53	7	51
Glomerulonephritis ⁵	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Hantavirus pulmonary syndrome	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Hemolytic uremic syndrome	24 hrs	0	0	0	1	0	0	0	0	0	1	0	0.5
Hepatitis C (cases & carriers)	7 days	10	25	31	196	35	187	35	213	47	246	35	204.5
Hepatitis D	7 days	0	0	0	1	0	0	0	0	0	0	0	0
Histoplasmosis	7 days	0	0	0	0	0	2	1	2	2	6	0	2
Influenza A, novel virus	3 hrs	0	0	0	0	8	11	0	181	0	0	0	5.5
Legionellosis	7 days	2	3	0	15	2	11	0	13	1	5	1	12
Leprosy	7 days	0	0	0	0	0	0	0	0	1	1	0	0
Leptospirosis	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Listeriosis	7 days	0	0	1	3	0	6	1	3	0	1	0	3
Lyme disease ²	7 days	0	0	0	31	0	19	0	17	0	16	0	18
Malaria	7 days	0	0	0	7	0	4	1	4	1	4	0	4
Ophthalmia neonatorum	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Plague	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Psittacosis	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Q fever ⁶	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Rabies, human case	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Rabies, potential exposure	24 hrs	0	0	0	31	0	54	0	15	1	45	0	38
Reye syndrome	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Rheumatic fever ⁵	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Rocky Mountain spotted fever ²	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Salmonellosis	7 days	5	8	8	99	15	136	12	89	15	105	12	102
Severe Acute Respiratory Syndrome	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Shigellosis	7 days	2	2	4	22	204	277	4	12	6	24	4	23
Smallpox	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Smallpox vaccination, complications	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
St. Louis encephalitis ³	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Staphylococcus aureus, methicillin resistant (MRSA), in those < 61 days old	24 hrs	0	0	1	3	0	6	2	6	0	3	0	4.5
Staphylococcus aureus, methicillin resistant (MRSA), community cluster ⁷	24 hrs	0	0	0	0	0	1	0	1	0	4	0	1
Staphylococcus aureus (vancomycin-resistant)	24 hrs	0	0	0	1	1	1	0	0	0	0	0	0.5
Streptococcal infections, group A invasive disease ⁸	24 hrs	5	8	6	30	3	20	5	14	1	16	5	18
Toxic shock syndrome ⁹	7 days	0	0	1	1	0	0	0	0	0	1	0	0.5
Trichinosis	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Tuberculosis ¹⁰	7 days	1	1	5	23	2	26	5	29	2	43	2	27.5
Tularemia	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Typhoid fever	24 hrs	0	1	1	3	2	3	1	5	0	3	1	3
Typhus	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Vibriosis (non-cholera)	7 days	0	0	0	3	0	1	0	2	0	0	0	1.5
West Nile disease ³	7 days	0	0	0	2	0	17	0	0	0	1	0	1.5
Yersiniosis	7 days	0	2	0	3	0	0	2	5	0	1	0	2
STDs, HIV and AIDS													
AIDS ¹¹ (January - March)	7 days	--	--	5	16	10	26	**	19	6	22	4.5	20.5
Chancroid	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Chlamydia ¹²	7 days	92	198	229	1485	252	1539	285	1555	239	1587	239	1547
Gonorrhea ¹²	7 days	15	35	33	243	35	223	33	225	46	268	35	234
HIV infection ¹¹ (January - March)	7 days	--	--	5	24	13	27	11	40	6	23	8.5	25.5
Syphilis	7 days	0	1	3	24	1	25	6	33	8	18	3	24.5

DuPage County healthcare providers and hospitals must report any suspected or confirmed case of these diseases to the local health authorities within the number of hours or days indicated.

REPORTING NUMBERS:

Communicable Diseases

(630) 221-7553

24 hours: (630) 682-7400

Tuberculosis

(630) 221-7522

STDs

(630) 221-7553

HIV/AIDS:

(630) 221-7553

¹ Provisional cases, based on date of onset

² Listed in CD Rules and Regulations under "Tickborne Disease"

³ Listed in CD Rules and Regulations under "Arboviral Infections"

⁴ O157:H7, STEC, EIEC, ETEC, EPEC

⁵ Listed in CD Rules and Regulations under "Streptococcal infections, group A invasive disease sequelae"

⁶ Q fever case in 2004 not related to any suspected bioterrorism threat or event

⁷ Two or more laboratory-confirmed cases of community onset MRSA infection during a 14 day period

⁸ Includes streptococcal toxic shock syndrome and necrotizing fasciitis

⁹ Due to *Staphylococcus aureus*

¹⁰ Provisional cases, based on count date per IDPH

¹¹ HIV/AIDS data are provided quarterly by IDPH and are provisional, based on date of diagnosis

¹² Provisional cases, based on date of test

NR = Not reported

** = Count of 5 cases or less

Websites

CDC:
www.cdc.gov

IDPH:
www.idph.state.il.us

DuPage:
www.dupagehealth.org

Archived issues of CD Review are available at:

www.dupagehealth.org/publications