



DuPage County Health Department R E V I E W

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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

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Communicable Disease
and Epidemiology at
(630) 221-7553 or
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to send 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.

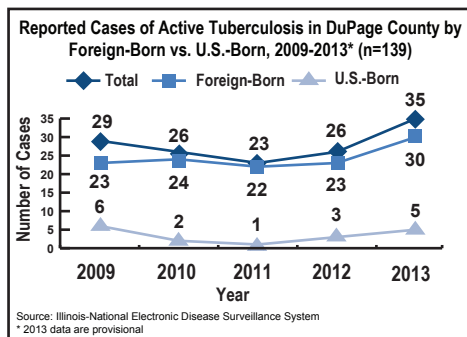
Each year, **World TB Day is observed on March 24**, commemorating the date in 1882 when Dr. Robert Koch announced his discovery of *Mycobacterium tuberculosis*, the bacillus that causes tuberculosis (TB). World TB Day provides an opportunity to raise awareness about TB-related problems and solutions and to support worldwide TB control efforts. The U.S. slogan for the 2014 observance is "Find TB. Treat TB. Working together to eliminate TB."¹

Statistics: In 2013, a total of 9,588 new TB cases were reported in the U.S., with an incidence rate of 3.0 cases per 100,000 population, a **decrease of 4.2% from 2012**. Although case counts and incidence rates continue to decline, **certain populations are disproportionately affected, including foreign-born persons, racial/ethnic minorities, persons infected with HIV, homeless persons, and those who are incarcerated.**¹

The TB incidence rate among foreign-born persons in 2013 was approximately 13 times greater than the incidence rate among U.S.-born persons, and the **proportion of TB cases occurring in foreign-born persons continues to increase, reaching 64.6% in 2013**. Racial/ethnic disparities in TB incidence persist, with TB rates among non-Hispanic Asians almost 26 times greater than among non-Hispanic whites. 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

The rate of decline in TB incidence among foreign-born persons (2.1%) lagged behind the rate of decline among the U.S.-born (8.4%) in 2013, causing the proportion of TB cases in foreign-born persons to continue to increase. The majority of TB cases among foreign-born persons have been **attributed to reactivation of TB infection acquired previously**, with the rate reflecting TB incidence in their countries of origin. Further interventions aimed at **diagnosing and treating latent TB infection (LTBI) among foreign-born persons are necessary** to meet the goal of TB elimination in the U.S.¹

Persons experiencing homelessness also present a challenge for TB control. During 2006–2010, the TB rate among persons experiencing homelessness was estimated to be 36–47 per 100,000 population, approximately 10 times greater than the overall national TB incidence during that period. In addition, recent outbreaks among persons experiencing homelessness have underscored the potential for transmission in homeless shelters. **Effectively addressing TB among persons experiencing homelessness requires partnerships between TB control programs and homeless service providers to diagnose and treat active TB disease and LTBI in this population.**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

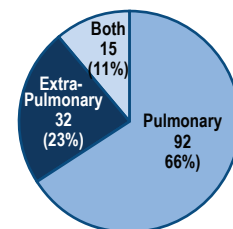
tuberculin skin test (TST), which may complicate decisions about prescribing treatment. **Despite this potential for BCG to interfere with test results, the TST and TB blood tests (interferon-gamma release assays or IGRAs) are not contraindicated for persons who have been vaccinated with BCG.**^{2,3} In addition, TB blood tests (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.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. Therapy often involves health department staff meeting regularly with patients who have TB to watch them take their medications.⁴ 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).**⁴

References:

1. www.cdc.gov/mmwr/pdf/wk/mm6311.pdf
2. www.cdc.gov/tb/topic/testing/default.htm
3. www.cdc.gov/tb/publications/factsheets/testing/IGRA.htm
4. www.idph.state.il.us/public/press13/3.21.13_Low_Tuberculosis_Cases_in_IL.htm

Reported Cases of Active Tuberculosis in DuPage County by Major Site of Disease, 2009-2013* (n=139)



Source: Illinois-National Electronic Disease Surveillance System
* 2013 data are provisional

DUPAGE COUNTY HEALTH DEPARTMENT
CASES¹ OF REPORTABLE DISEASES*

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

CD REVIEW
Volume 10, No. 3 March 2014

Vaccine Preventable Diseases	Report Within	2014		2013		2012		2011		2010		Median	
		Feb	Jan-Feb	Jan-Feb	Total	Jan-Feb	Total	Jan-Feb	Total	Jan-Feb	Total	Jan-Feb	Total ('10-'13)
Chickenpox (varicella)	24 hrs	7	11	13	79	15	93	8	82	15	95	13	87.5
Diphtheria	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
<i>Haemophilus influenzae</i> , invasive	24 hrs	1	2	0	10	3	11	2	15	2	7	2	10.5
Hepatitis A	24 hrs	0	0	1	4	0	8	2	8	1	3	1	6
Hepatitis B	7 days	0	1	1	3	1	5	0	0	0	4	1	3.5
Hepatitis B (carriers)	7 days	7	11	11	103	15	97	11	113	15	108	11	105.5
Influenza, deaths in < 18 yrs old	7 days	0	0	0	1	0	0	0	0	0	0	0	0
Influenza, ICU admissions	24 hrs	7	30	45	76	1	59	18	24	0	3	18	41.5
Measles (rubeola)	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Mumps	24 hrs	0	0	0	0	1	1	1	3	0	2	0	1.5
<i>Neisseria meningitidis</i> , invasive	24 hrs	0	0	0	0	0	0	0	2	0	1	0	0.5
Pertussis (whooping cough)	24 hrs	1	3	7	41	61	195	21	268	5	92	7	143.5
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
<i>Streptococcus pneumoniae</i> , invasive disease, in those < 5 yrs old	7 days	0	0	0	4	1	5	4	13	2	8	1	6.5
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	0	0	2	0	3	0	0	0	1
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	0	0	0
Creutzfeldt-Jakob disease	7 days	0	0	0	0	0	1	0	3	1	1	0	1
Cryptosporidiosis	7 days	0	0	0	7	0	2	0	5	0	5	0	5
Cyclosporiasis	7 days	0	0	1	4	0	0	0	0	0	0	0	0
Dengue fever ³	7 days	0	1	0	2	0	1	1	1	1	4	1	1.5
Ehrlichiosis ²	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Enteric <i>E. coli</i> infections ⁴	24 hrs	0	0	2	53	2	18	4	22	2	18	2	20
Giardiasis	7 days	0	2	2	32	9	34	2	44	11	49	2	39
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	0	1	0	1	0	0	0	0	0.5
Hepatitis C (cases & carriers)	7 days	8	32	31	175	34	171	27	189	35	187	32	181
Hepatitis D	7 days	0	0	0	0	0	0	0	1	0	0	0	0
Histoplasmosis	7 days	1	1	0	1	0	2	0	1	0	2	0	1.5
Influenza A, novel virus	3 hrs	0	0	0	0	0	0	0	0	8	11	0	0
Legionellosis	7 days	1	2	4	39	3	25	0	14	2	11	2	19.5
Leprosy	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Leptospirosis	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Listeriosis	7 days	0	0	0	2	0	2	1	2	0	6	0	2
Lyme disease ²	7 days	0	0	0	39	0	27	0	32	0	19	0	29.5
Malaria	7 days	0	0	0	7	1	2	0	7	0	4	0	5.5
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	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	4	5	1	44	0	43	0	30	0	54	0	43.5
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	1	0	0	0	0	0	0
Salmonellosis	7 days	3	8	11	128	8	123	7	95	15	136	8	125.5
Severe Acute Respiratory Syndrome	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Shigellosis	7 days	0	0	0	18	2	20	4	22	204	277	2	21
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
<i>Staphylococcus aureus</i> , methicillin resistant (MRSA), in those < 61 days old	24 hrs	1	2	0	3	0	7	1	3	0	6	0	4.5
<i>Staphylococcus aureus</i> , methicillin resistant (MRSA), community cluster ⁶	24 hrs	0	0	0	0	0	1	0	0	0	1	0	0.5
<i>Staphylococcus aureus</i> (vancomycin-resistant)	24 hrs	0	0	0	0	0	0	0	1	1	1	0	0.5
Streptococcal infections, group A invasive disease ⁷	24 hrs	2	11	5	21	8	20	6	30	3	20	6	20.5
Toxic shock syndrome ⁸	7 days	0	0	0	1	0	0	1	1	0	0	0	0.5
Trichinosis	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Tuberculosis	7 days	1	1	8	35	1	26	5	18	2	26	2	26
Tularemia	3 hrs	0	0	0	0	1	0	0	0	0	0	0	0
Typhoid fever	24 hrs	0	0	0	2	1	2	1	3	2	3	1	2.5
Typhus	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Vibriosis (non-cholera)	7 days	0	0	0	2	0	4	0	3	0	1	0	2.5
West Nile disease ³	7 days	0	0	0	6	0	56	0	2	0	17	0	11.5
Yersiniosis	7 days	1	1	0	2	2	3	0	3	0	0	0	2.5
STDs, HIV and AIDS													
AIDS ⁹ (January - March)	7 days	--	--	6	19	**	17	**	16	10	26	8	18
Chancroid	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Chlamydia	7 days	112	267	294	1670	267	1861	230	1599	253	1542	267	1634.5
Gonorrhea	7 days	9	21	45	221	45	239	30	241	35	223	35	231
HIV infection ⁹ (January - March)	7 days	--	--	6	24	6	20	**	24	13	27	6	24
Syphilis ¹⁰	7 days	2	3	3	27	2	19	6	24	1	25	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 Two or more laboratory-confirmed cases of community onset MRSA infection during a 14 day period

⁷ Includes streptococcal toxic shock syndrome and necrotizing fasciitis

⁸ Due to *Staphylococcus aureus*

⁹ HIV/AIDS data are provided quarterly by IDPH and are provisional, based on date of diagnosis.

¹⁰ Cases are provisional, based on test date per local health department investigation.

NR = Not reported

** = Count of 5 cases or less

Websites

CDC:
www.cdc.gov

IDPH:
www.idph.state.il.us

DuPage:
www.dupagehealth.org

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