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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

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.

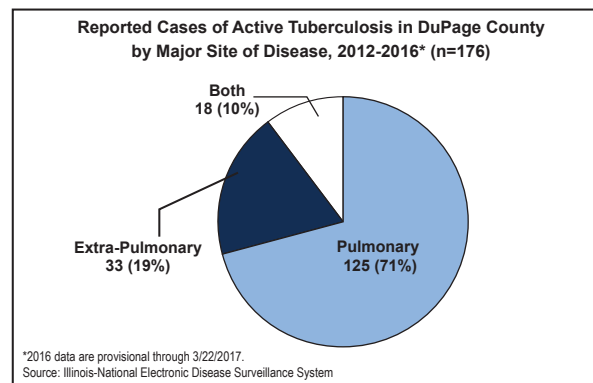
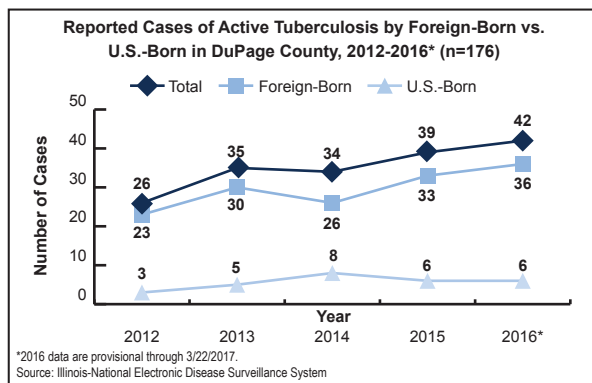
World TB Day is recognized each year on March 24, which commemorates the date in 1882 when Dr. Robert Koch announced his discovery of *Mycobacterium tuberculosis*, the bacillus that causes tuberculosis (TB). World TB Day is an opportunity to raise awareness about TB and the measures needed to tackle this devastating disease. In 2017, for the second year, the U.S. theme for World TB Day is "Unite to End TB," which highlights how much more needs to be done to eliminate TB in the U.S.¹

Statistics: In 2016, a total of **9,287 new TB cases occurred in the U.S.** (incidence of **2.9 cases per 100,000 persons**), a decrease from the 2015 case count and incidence. This 2016 provisional case count represents the lowest number of TB cases recorded since reporting began in 1953. However, data suggest that current strategies will not be sufficient to reach the goal of U.S. TB elimination during this century.¹

In DuPage County, 42 active TB cases were provisionally reported in 2016, with an incidence of 4.58 cases per 100,000 population. Statewide, 340 active TB cases were reported in Illinois in 2016, with an incidence of 2.6 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. Among 9,287 TB cases reported in 2016, **U.S.-born persons** accounted for 2,935 (31.6%) cases, and 6,307 (67.9%) cases occurred among **foreign-born persons** (45 [0.5%] cases occurred among persons whose national origin was not known). **Incidence among foreign-born persons** (14.6 cases per 100,000) decreased 3.2% from 2015, but was **approximately 14 times the incidence among U.S.-born persons.**²

Most TB in the U.S. is thought to be a consequence of infection acquired years in the past, and recent estimates are that **92.5% of TB among foreign-born persons is caused by reactivation of latent TB infection (LTBI)**, a condition that occurs when a person is infected with *M. tuberculosis* without signs and symptoms, or radiographic or bacteriologic evidence of TB disease. Therefore, most TB among foreign-born persons, even those who arrived ≥ 10 years ago, is **probably attributable to infections acquired before U.S. arrival.** These data support the recommendations by CDC and U.S. Preventive Services Task Force (USPSTF) to **screen and treat persons with LTBI** who were born in, or are former residents of, countries with increased TB prevalence **regardless of time since arrival in the U.S. or age.**³



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., correctional or long-term care facilities), 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 IGRA) are not contraindicated for persons who have been vaccinated with BCG.** 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. **TB blood tests are the preferred method of TB testing for people who have received the BCG vaccine.**⁵

Treatment and Prevention: TB is preventable and curable, and its elimination would have widespread health, economic, and social benefits. Current TB control priorities, including **early identification of TB cases**, prompt institution of **appropriate treatment**, and **identification of exposed contacts** remain critical to preventing a resurgence of TB; to achieve TB elimination, expanded measures and new strategies are needed. Epidemiologic models demonstrate that **identifying and treating persons with LTBI is critical to accomplishing the goal of TB elimination.**²

References:

1. www.cdc.gov/mmwr/volumes/66/wr/mm6611a1.htm?s_cid=mm6611a1_w
2. www.cdc.gov/mmwr/volumes/66/wr/mm6611a2.htm?s_cid=mm6611a2_w
3. www.cdc.gov/mmwr/volumes/66/wr/mm6611a3.htm?s_cid=mm6611a3_w
4. www.cdc.gov/tb/topic/testing/
5. www.cdc.gov/tb/topic/testing/testingbcgvaccinated.htm

DUPAGE COUNTY HEALTH DEPARTMENT

CASES¹ OF REPORTABLE DISEASES*

* Last updated by the Illinois Department of Public Health in April 2016

CD REVIEW

Volume 13, No. 3 March 2017

	Report Within	2017		2016		2015		2014		2013		Median	
		Feb	Jan-Feb	Jan-Feb	Total	Jan-Feb	Total	Jan-Feb	Total	Jan-Feb	Total	Jan-Feb	Total ('13-'16)
Vaccine Preventable Diseases													
Chickenpox (varicella)	24 hrs	3	4	11	56	8	36	11	76	13	78	11	66
Diphtheria	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
<i>Haemophilus influenzae</i> , invasive	24 hrs	2	3	2	13	2	15	1	5	0	10	2	11.5
Hepatitis A	24 hrs	2	2	0	2	0	5	0	8	1	4	0	4.5
Hepatitis B	7 days	0	0	0	2	0	2	1	5	1	3	0	2.5
Hepatitis B (carriers)	7 days	10	24	18	121	25	137	14	112	11	110	18	116.5
Influenza, deaths in < 18 yrs old	7 days	0	0	0	0	0	0	0	0	0	1	0	0
Influenza, ICU admissions	24 hrs	21	33	27	69	19	43	33	152	45	78	33	73.5
Measles (rubeola)	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Mumps	24 hrs	1	1	3	11	1	8	1	2	0	0	1	5
<i>Neisseria meningitidis</i> , invasive	24 hrs	0	0	0	1	0	1	0	0	0	0	0	0.5
Pertussis (whooping cough)	24 hrs	1	3	12	107	6	49	6	22	7	43	6	46
Poliomyelitis	3 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	2	0	0	0	3	0	4	0	2.5
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	1	0	3	0	3	0	0	0	2
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
Campylobacteriosis	7 days	7	19	21	173	NR	NR	NR	NR	NR	NR	NR	NR
Chikungunya virus disease ³	7 days	0	0	0	4	0	2	0	0	NR	NR	0	2
Cholera	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Creutzfeldt-Jakob disease	7 days	0	0	0	3	0	1	1	2	0	0	0	1.5
Cryptosporidiosis	7 days	0	1	2	18	1	5	0	2	0	7	1	6
Cyclosporiasis	7 days	0	0	0	5	0	1	0	1	1	4	0	2.5
Dengue fever ³	7 days	0	0	0	3	0	3	1	1	0	3	0	3
Ehrlichiosis ²	7 days	0	0	0	2	0	1	0	0	0	0	0	0.5
Enteric <i>E. coli</i> infections ⁴	24 hrs	0	0	4	23	2	14	0	18	2	54	2	20.5
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	0	0	0	2	0	0	0	0
Hepatitis C (cases & carriers)	7 days	11	36	49	254	42	237	37	242	31	181	37	239.5
Hepatitis D	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Histoplasmosis	7 days	0	1	2	7	0	3	1	7	0	1	1	5
Influenza A, novel virus	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Legionellosis	7 days	0	2	1	34	0	18	2	26	4	39	2	30
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	0	0	2	0	2	0	2	0	2
Lyme disease ²	7 days	0	0	1	34	1	30	0	22	0	39	0	32
Malaria	7 days	0	0	4	10	0	4	0	2	0	7	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, animal case	24 hrs	0	0	0	10	0	16	0	6	NR	NR	0	10
Rabies, human case	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Rabies, potential exposure	24 hrs	0	0	2	59	2	73	5	51	1	44	2	55
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	3	0	0	0	0	0	0	0	0
Salmonellosis	7 days	3	8	10	119	16	133	8	115	11	128	10	123.5
Severe Acute Respiratory Syndrome	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Shigellosis	7 days	1	2	5	21	3	27	0	18	0	18	2	19.5
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	0	0	0	11	1	10	2	9	0	3	0	9.5
<i>Staphylococcus aureus</i> , methicillin resistant (MRSA), community cluster ⁶	24 hrs	0	0	0	1	0	0	0	0	0	0	0	0
<i>Staphylococcus aureus</i> (vancomycin-resistant)	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Streptococcal infections, group A invasive disease ⁷	24 hrs	4	7	5	18	6	22	11	29	5	21	6	21.5
Toxic shock syndrome ⁸	7 days	0	0	0	0	0	0	0	0	0	1	0	0
Trichinosis	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Tuberculosis	7 days	5	5	5	42	2	39	1	34	8	35	5	37
Tularemia	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Typhoid fever	24 hrs	0	1	0	0	1	3	1	5	0	2	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	6	0	4	0	3	0	2	0	3.5
West Nile virus disease ³	7 days	0	0	0	10	0	9	0	5	0	6	0	7.5
Yersiniosis	7 days	0	0	0	4	0	1	1	3	0	2	0	2.5
Zika virus disease ³	7 days	0	0	0	10	NR	NR	NR	NR	NR	NR	NR	NR
STDs, HIV and AIDS													
AIDS ⁹ (January - March)	7 days	--	--	7	8	--	11	--	15	6	26	6.5	13
Chancroid	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Chlamydia	7 days	99	240	390	2299	347	2382	353	2056	319	1883	347	2177.5
Gonorrhea	7 days	13	37	60	378	55	307	35	242	45	258	45	282.5
HIV infection ^{9,10} (January - March)	7 days	--	--	12	30	13	38	10	37	13	47	12.5	37.5
Syphilis ¹¹	7 days	0	6	10	51	4	42	5	41	4	34	5	41.5

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 HIV counts reflect all newly diagnosed HIV cases regardless of stage of disease at diagnosis.
 - ¹¹ 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.dph.illinois.gov

DuPage:
www.dupagehealth.org

Archived issues of CD Review are available at:
www.dupagehealth.org/publications