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General Information

Communicable Disease
(630) 682-7979, ext. 7553

Environmental Health
(630) 682-7400

Immunizations
(630) 682-7400

Sexually Transmitted Diseases
(630) 682-7979, ext. 7553

HIV/AIDS
(630) 682-7400

Tuberculosis
(630) 682-7979, ext. 7522

School Health
(630) 682-7979, ext. 7300

Travel Clinic
(630) 682-7400

Animal Care & Control
(630) 407-2800

Please contact
Disease Control at
(630) 682-7979, ext. 7553 or
ebarajas@dupagehealth.org
to send suggestions
or to be added to the
distribution list.

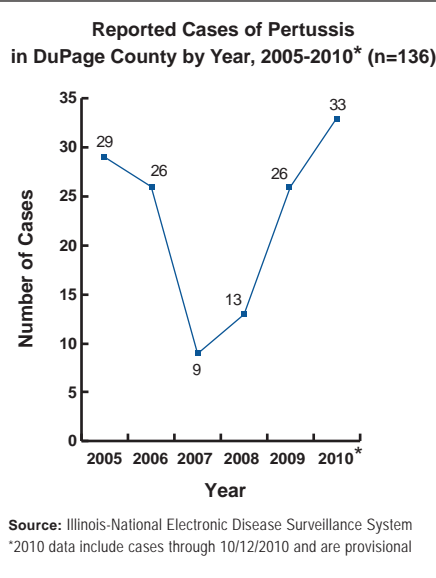
The purpose of this two-page surveillance update is to promote the control and prevention of communicable disease (CD) by providing clinically relevant information and resources to healthcare professionals in DuPage County.

Under the Microscope *Bordetella pertussis*

For questions or to report a suspect or known case of pertussis, please call the DuPage County Health Department at (630) 682-7979, ext. 7553.

During 2010, several states have reported an increase in cases and/or localized outbreaks of pertussis, including a state-wide epidemic in California. Localized outbreaks are not uncommon and occur throughout the year; over the last 5 years, 8,000-25,000 cases of pertussis were reported per year in the U.S.¹

Clinicians are reminded of the importance of early disease recognition, diagnosis, treatment, reporting, and preventive measures that should be followed to control and prevent further transmission. Pertussis is an acute, infectious cough illness caused by the bacterium *Bordetella pertussis* that remains endemic in the U.S., despite longstanding routine childhood pertussis vaccination. Immunity to pertussis wanes approximately 5–10 years after completion of childhood vaccination, leaving adolescents and adults susceptible to pertussis.^{2,3}



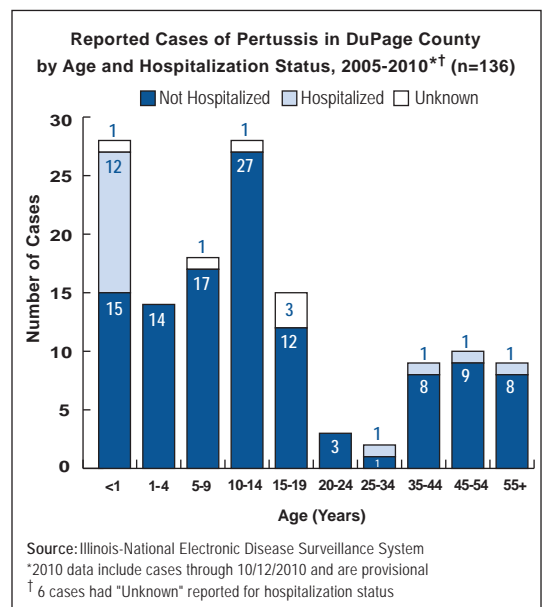
Even though the disease may be milder in older persons, those who are infected may transmit the disease to other susceptible persons, including unimmunized or incompletely immunized infants.⁴ Parents with pertussis, including new mothers, are the identified source of *B. pertussis* infection in ≥25% of pertussis cases in early infancy, when rates for complications (often requiring hospitalization) and fatalities are highest. Infants aged <12 months accounted for 145 (93%) of 156 pertussis-related deaths reported to CDC for 2000–2006.⁵ The risk for pertussis death or severe pertussis is highest among infants in the first 6 months of life and remains elevated until infants have received 1–2 doses of pediatric DTaP vaccine.⁵

Diagnosis of pertussis is based primarily on clinical presentation (cough lasting at least 2 weeks with inspiratory “whoop,” paroxysms, or post-tussive vomiting, without other apparent cause), and may be confirmed by a positive culture and/or PCR testing by nasopharyngeal swab.^{4,6} A negative culture or PCR test, however, does not rule out pertussis if the patient’s clinical presentation is otherwise consistent with pertussis per the clinician’s judgement; the case should still be reported to the local health department, and appropriate treatment and prophylaxis should still be administered. Direct Fluorescent antibody (DFA) testing is not recommended because of low sensitivity and variable specificity; serological testing for antibody levels is not yet standardized and, therefore, should not be relied on as a criterion for

laboratory confirmation.^{4,6} Testing in the absence of respiratory symptoms is not recommended.⁷

In addition to frequent handwashing, respiratory hygiene (cover coughs and sneezes with a tissue, and throw out the tissues right away), and timely diagnosis followed by appropriate antimicrobial treatment, transmission of pertussis may be controlled by post-exposure prophylaxis of close contacts of persons with pertussis, regardless of age and vaccination status.⁷

Vaccination of susceptible persons is the most important preventive strategy against pertussis.⁷ Every child should be protected against pertussis (as well as diphtheria and tetanus) with DTaP vaccine doses at 2, 4, 6 and 15 months of age and another dose at 4 to 6 years of age.⁵ New booster Tdap vaccines became available in 2005 that offer continued protection against pertussis, diphtheria and tetanus for adolescents and adults, including postpartum women (before discharge from the hospital, for women who have not received Tdap previously).⁵ Adults with routine contact with infants less than 12 months of age (e.g., parents, grandparents aged <65 years, child-care providers, and healthcare personnel) should receive a booster dose.^{2,5}



References:

- www.cdc.gov/vaccines/vpd-vac/pertussis/default.htm
- www.cdc.gov/mmwr/PDF/rr/rr5503.pdf
- www.cdc.gov/mmwr/PDF/rr/rr5517.pdf

- www.cdc.gov/vaccines/pubs/pinkbook/downloads/pert.pdf
- www.cdc.gov/mmwr/PDF/rr/rr5704.pdf
- www.cdc.gov/pertussis/surv-reporting.html
- www.cdc.gov/mmwr/PDF/rr/rr5414.pdf

DUPAGE COUNTY HEALTH DEPARTMENT

CASES¹ OF REPORTABLE DISEASES*

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

CD REVIEW

Volume 6, No. 10 October 2010

Vaccine Preventable Diseases	Report Within	2010		2009		2008		2007		2006		Median	
		Sep	Jan - Sep	Jan - Sep	Total	Jan - Sep	Total	Jan - Sep	Total	Jan - Sep	Total	Jan - Sep	Total ('06-'09)
Chickenpox (varicella)	24 hrs	2	79	110	146	142	236	128	177	160	252	128	206.5
Diphtheria	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Haemophilus influenzae, invasive	24 hrs	0	4	8	11	4	6	5	5	6	7	5	6.5
Hepatitis A	24 hrs	1	5	8	14	14	16	22	26	10	12	10	15
Hepatitis B	7 days	0	2	5	8	4	4	6	9	2	4	4	6
Hepatitis B (carriers)	7 days	9	72	86	109	97	128	132	168	124	159	97	143.5
Influenza, deaths in < 18 yrs old	7 days	0	0	0	1	0	0	NR	NR	NR	NR	0	0.5
Measles (rubeola)	24 hrs	0	0	1	1	15	15	0	0	0	0	0	0.5
Mumps	24 hrs	0	0	2	2	2	2	12	13	84	130	2	7.5
Neisseria meningitidis, invasive	24 hrs	0	1	4	6	2	4	1	1	2	2	2	3
Pertussis (whooping cough)	24 hrs	6	34	17	26	6	13	8	9	23	26	17	19.5
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
Streptococcus pneumoniae, invasive disease, in those < 5 yrs old	7 days	0	4	6	8	1	6	6	10	6	8	6	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	0	0	0	NR	NR	NR	NR	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	1	1	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	NR	NR	NR	NR	0	0
Cholera	24 hrs	0	0	0	0	1	1	0	0	0	0	0	0
Creutzfeldt-Jakob disease	7 days	0	0	0	0	0	0	NR	NR	1	1	0	0
Cryptosporidiosis	7 days	1	5	4	4	2	2	3	5	9	9	4	4.5
Cyclosporiasis	7 days	0	0	1	1	0	0	0	0	0	0	0	0
Dengue fever ³	7 days	0	3	3	4	0	0	1	1	2	2	2	1.5
Ehrlichiosis ²	7 days	0	0	0	0	0	0	1	1	2	2	0	0.5
Enteric E. coli infections ⁴	24 hrs	0	16	8	11	20	21	7	7	7	8	8	9.5
Giardiasis	7 days	2	40	32	40	51	57	64	68	33	47	40	52
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	1	0	0	0	0	0	0
Hepatitis C (cases & carriers)	7 days	9	147	187	221	206	261	241	301	207	272	206	266.5
Hepatitis D	7 days	0	0	0	0	0	0	NR	NR	NR	NR	0	0
Histoplasmosis	7 days	0	2	2	2	5	6	4	6	1	1	2	4
Influenza A, novel virus	3 hrs	0	11	54	181	0	0	NR	NR	NR	NR	11	90.5
Legionellosis	7 days	0	9	13	13	5	5	9	13	7	9	9	11
Leprosy	7 days	0	0	1	1	0	0	0	0	1	1	0	0.5
Leptospirosis	7 days	0	0	0	0	0	0	1	1	0	0	0	0
Listeriosis	7 days	0	3	2	3	0	1	1	1	3	6	2	2
Lyme disease ²	7 days	0	17	17	18	15	17	15	16	10	10	15	16.5
Malaria	7 days	1	4	4	4	5	5	6	7	3	6	4	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 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	2	48	14	15	44	46	50	52	28	28	44	37
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	1	1	0	0
Rocky Mountain spotted fever ²	7 days	0	0	0	0	0	0	0	0	1	1	0	0
Salmonellosis	7 days	13	112	72	91	86	108	118	140	80	103	86	105.5
Severe Acute Respiratory Syndrome	3 hrs	0	0	0	0	0	0	NR	NR	NR	NR	0	0
Shigellosis	7 days	6	269	11	13	26	28	15	18	22	27	22	22.5
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	NR	NR	NR	NR	0	0
St. Louis encephalitis ³	7 days	0	0	0	0	0	0	NR	NR	NR	NR	0	0
Staphylococcus aureus, methicillin resistant (MRSA), in those < 61 days old	24 hrs	0	6	5	6	0	3	NR	NR	NR	NR	5	4.5
Staphylococcus aureus, methicillin resistant (MRSA), community cluster ⁷	24 hrs	0	1	1	1	2	4	NR	NR	NR	NR	1	2.5
Staphylococcus aureus (vancomycin-resistant)	24 hrs	0	1	0	0	0	0	1	1	0	0	0	0
Streptococcal infections, group A invasive disease ⁸	24 hrs	0	14	10	15	11	16	9	11	16	18	11	15.5
Toxic shock syndrome ⁹	7 days	0	0	0	0	1	1	1	2	1	1	1	1
Trichinosis	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Tuberculosis	7 days	1	21	21	29	35	43	25	27	34	44	25	36
Tularemia	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Typhoid fever	24 hrs	1	3	5	5	1	3	5	7	2	2	3	4
Typhus	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Vibriosis (non-cholera)	7 days	0	1	2	2	0	0	1	1	1	2	1	1.5
West Nile disease ³	7 days	7	13	0	0	1	1	9	10	42	43	9	5.5
Yersiniosis	7 days	0	0	4	4	1	1	1	1	0	0	1	1
STDs, HIV and AIDS													
AIDS ¹⁰ (July - September)	7 days	2	18	16	20	14	22	17	20	24	32	17	21
Chancroid	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Chlamydia	7 days	57	997	1157	1362	1183	1587	959	1522	1019	1346	1019	1442
Gonorrhea	7 days	8	154	165	198	198	268	156	251	140	192	156	224.5
HIV infection ¹⁰ (July - September)	7 days	2	25	22	35	16	23	15	22	20	25	20	24
Syphilis	7 days	0	13	23	33	11	18	11	18	19	24	13	21

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) 682-7979, ext. 7553
24 hours: (630) 682-7400

Tuberculosis

(630) 682-7979, ext. 7522

STDs

(630) 682-7979, ext. 7553

HIV/AIDS:

(630) 682-7400

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