



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.



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



Under the Microscope *Streptococcus pneumoniae*

For questions or to report suspect and known cases of invasive pneumococcal disease (e.g., bacteremia, meningitis, or infection of a normally sterile site) in children < 5 years of age, please call the DuPage County Health Department at 630-221-7553.

Streptococcus pneumoniae (pneumococcus) is a leading cause worldwide of illness and death for young children, persons with underlying medical conditions, and the elderly. The pneumococcus is the most commonly identified cause of bacterial pneumonia; since the widespread use of vaccines against *Haemophilus influenzae* type b, it has become the most common cause of bacterial meningitis in the U.S.¹

Pneumococci can be found in the upper respiratory tract of 15% of well adults; in child care settings, up to 65% of children are colonized. Although pneumococcal carriage can lead to invasive disease (e.g., meningitis, bacteremia, or infection of other normally sterile sites), acute otitis media (AOM) is the most common clinical manifestation of pneumococcal infection among children and the most common outpatient diagnosis resulting in antibiotic prescriptions in that group. Each year in the U.S., pneumococcal disease accounts for a substantial number of cases of meningitis, bacteremia, pneumonia, and AOM. Approximately 12% of all patients with invasive pneumococcal disease die of their illness, but case-fatality rates are higher for the elderly and patients with certain underlying illnesses.¹

As many as 175,000 hospitalizations from pneumococcal pneumonia are estimated to occur annually in the U.S. Pneumococci account for up to 36% of adult community-acquired pneumonia and 50% of hospital-acquired pneumonia. Pneumonia is a common bacterial complication of influenza and measles. The case-fatality rate is 5%–7% and may be much higher among elderly persons.²

Bacteremia without a known site of infection is the most common invasive clinical presentation of pneumococcal infection among children 2 years of age and younger, accounting for approximately 70% of invasive disease in this age group. Bacteremic pneumonia accounts for 12%–16% of invasive pneumococcal disease among children 2 years of age and younger.²

As published by CDC in December 2010, the Advisory Committee on Immunization Practices (ACIP) recommends routine vaccination with 13-valent pneumococcal conjugate vaccine (PCV13) for all children aged 2-59 months. ACIP also recommends PCV13 for children aged 60-71 months with underlying medical conditions that increase their risk for pneumococcal disease or complications.³ PCV13 is replacing PCV7 for prevention of pneumococcal disease in children. PCV13 includes 6 additional serotypes, protecting against more disease than PCV7. In particular, PCV13 vaccine protects against serotype 19A, which has become the most common pneumococcal serotype and is often resistant to antibiotics.^{4,5}

ACIP also recommends a single dose of 23-valent pneumococcal polysaccharide vaccine (PPSV23) for all people 65 years of age and older and for persons 2 through 64 years of age with certain high-risk conditions. It is also recommended for use in adults 19 through 64 years of age who smoke cigarettes or who have asthma.^{5,6}

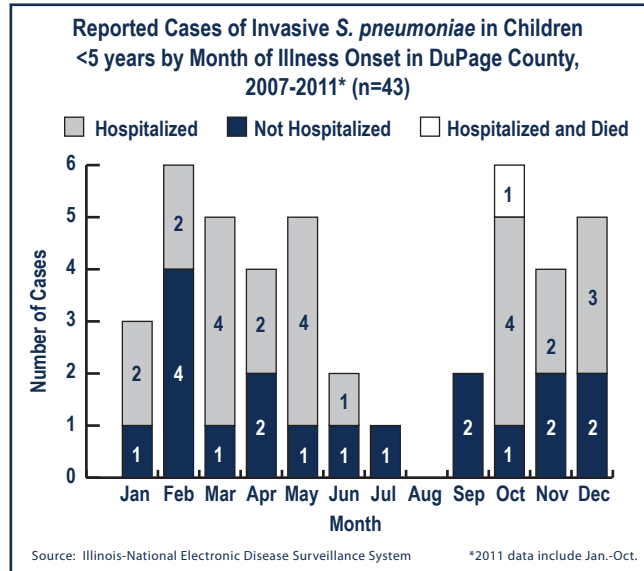
For those 2 through 64 years of age, high-risk conditions include: chronic cardiovascular disease (congestive heart failure and cardiomyopathies), chronic pulmonary disease (including chronic obstructive pulmonary disease, emphysema, and asthma), diabetes mellitus, alcoholism, chronic liver disease (including cirrhosis), cerebrospinal fluid leaks, cochlear implant, functional or anatomic asplenia including sickle cell disease and splenectomy, immunocompromising conditions including HIV infection, leukemia, lymphoma, Hodgkin's disease, multiple myeloma, generalized malignancy, chronic renal failure, nephrotic syndrome; those receiving immunosuppressive chemotherapy (including corticosteroids); and those who have received an organ or bone marrow transplant, and residents of nursing homes or long-term care facilities.^{3,5,7}

Among those with high-risk conditions for pneumococcal disease, most are also at high risk for severe complications from influenza. A single pneumococcal revaccination at least five years after initial vaccination is recommended for people 65 years and older who were first vaccinated before age 65 years. A single pneumococcal revaccination is also recommended for people at highest risk of disease, such as those who have functional and anatomical asplenia, immunocompromising conditions, or malignancy and have at least five years elapsed from receipt of first vaccination.^{6,7}

Pneumococcal vaccine may be given at the same time as influenza vaccine, or at any time during the year. Because the adult groups for whom pneumococcal and seasonal influenza vaccines are recommended are similar, the need for pneumococcal vaccination should be evaluated at the time of annual influenza vaccination.⁷

References:

1. www.cdc.gov/vaccines/pubs/surv-manual/chpt11-pneumo.pdf
2. www.cdc.gov/vaccines/pubs/pinkbook/downloads/pneumo.pdf
3. www.cdc.gov/mmwr/pdf/rr/rr5911.pdf
4. www.cdc.gov/vaccines/vpd-vac/pneumo/vac-PCV13-hcp-faqs.htm
5. www.cdc.gov/vaccines/vpd-vac/pneumo/default.htm
6. www.cdc.gov/mmwr/pdf/wk/mm5934.pdf
7. www.cdc.gov/mmwr/PDF/rr/rr4608.pdf



DUPAGE COUNTY HEALTH DEPARTMENT

CASES¹ OF REPORTABLE DISEASES*

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

CD REVIEW

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Vaccine Preventable Diseases	Report Within	2011		2010		2009		2008		2007		Median	
		Oct	Jan - Oct	Jan - Oct	Total	Jan - Oct	Total	Jan - Oct	Total	Jan - Oct	Total	Jan - Oct	Total ('07-'10)
Chickenpox (varicella)	24 hrs	7	55	82	95	128	146	178	236	139	177	128	161.5
Diphtheria	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Haemophilus influenzae, invasive	24 hrs	2	11	6	7	8	11	4	6	5	5	6	6.5
Hepatitis A	24 hrs	0	5	3	3	4	6	10	11	16	16	5	8.5
Hepatitis B	7 days	0	1	2	4	5	8	3	3	8	9	3	6
Hepatitis B (carriers)	7 days	9	88	93	108	100	127	106	128	142	167	100	127.5
Influenza, deaths in < 18 yrs old	7 days	0	0	0	0	1	1	0	0	NR	NR	0	0
Measles (rubeola)	24 hrs	0	0	0	0	1	1	14	14	0	0	0	0.5
Mumps	24 hrs	0	2	0	2	2	2	2	2	13	13	2	2
Neisseria meningitidis, invasive	24 hrs	0	1	1	1	4	6	3	4	1	1	1	2.5
Pertussis (whooping cough)	24 hrs	28	194	50	92	21	26	6	13	9	9	21	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	11	6	8	7	8	3	6	7	10	7	8
Tetanus	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Other Communicable Diseases													
Anaplasmosis ²	7 days	0	3	0	0	0	0	0	0	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	0	0	1	1	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	NR	NR	0	0
Cholera	24 hrs	0	0	0	0	0	0	1	1	0	0	0	0
Creutzfeldt-Jakob disease	7 days	0	1	0	0	0	0	0	0	NR	NR	0	0
Cryptosporidiosis	7 days	0	4	5	5	4	5	1	1	4	5	4	5
Cyclosporiasis	7 days	0	0	0	0	1	1	0	0	0	0	0	0
Dengue fever ³	7 days	0	1	4	4	4	4	0	0	1	1	1	2.5
Ehrlichiosis ²	7 days	0	0	0	0	0	0	0	0	1	1	0	0
Enteric E. coli infections ⁴	24 hrs	0	18	15	18	11	12	21	21	6	6	15	15
Giardiasis	7 days	5	44	41	49	34	40	51	53	60	62	44	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	2	0	0	0	0	1	1	0	0	0	0
Hepatitis C (cases & carriers)	7 days	9	162	163	187	183	224	215	246	174	203	174	213.5
Hepatitis D	7 days	0	1	0	0	0	0	0	0	NR	NR	0	0
Histoplasmosis	7 days	0	0	2	2	2	2	5	6	3	5	2	3.5
Influenza A, ICU admissions	3 hrs	0	24	0	3	NR	NR	NR	NR	NR	NR	NR	NR
Influenza A, novel virus	3 hrs	0	0	11	11	126	181	0	0	NR	NR	5.5	11
Legionellosis	7 days	2	10	10	11	13	13	5	5	11	13	10	12
Leprosy	7 days	0	0	0	0	0	0	1	1	0	0	0	0
Leptospirosis	7 days	0	0	0	0	0	0	0	0	1	1	0	0
Listeriosis	7 days	0	3	5	6	3	3	1	1	1	1	3	2
Lyme disease ²	7 days	0	27	19	19	17	17	15	16	16	16	17	16.5
Malaria	7 days	2	7	4	4	4	4	4	4	6	7	4	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	28	54	54	13	15	45	45	48	50	45	47.5
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	0	0	0	0	0	0	0
Salmonellosis	7 days	9	86	121	136	76	89	91	105	120	133	91	119
Severe Acute Respiratory Syndrome	3 hrs	0	0	0	0	0	0	0	0	NR	NR	0	0
Shigellosis	7 days	2	17	269	277	11	12	23	23	12	14	17	18.5
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	NR	NR	0	0
St. Louis encephalitis ³	7 days	0	0	0	0	0	0	0	0	NR	NR	0	0
Staphylococcus aureus, methicillin resistant (MRSA), in those < 61 days old	24 hrs	0	3	6	6	6	6	0	3	NR	NR	4.5	6
Staphylococcus aureus, methicillin resistant (MRSA), community cluster ⁷	24 hrs	0	0	1	1	1	1	2	4	NR	NR	1	1
Staphylococcus aureus (vancomycin-resistant)	24 hrs	0	1	1	1	0	0	0	0	0	0	0	0
Streptococcal infections, group A invasive disease ⁸	24 hrs	2	26	14	20	12	14	11	16	10	11	12	15
Toxic shock syndrome ⁹	7 days	0	1	0	0	0	0	1	1	2	2	1	0.5
Trichinosis	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Tuberculosis	7 days	0	15	21	26	22	29	38	43	25	27	22	28
Tularemia	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Typhoid fever	24 hrs	0	3	3	3	5	5	3	3	5	6	3	4
Typhus	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Vibriosis (non-cholera)	7 days	0	3	1	1	2	2	0	0	1	1	1	1
West Nile disease ³	7 days	0	2	17	17	0	0	1	1	10	10	2	5.5
Yersiniosis	7 days	0	2	0	0	5	5	1	1	1	1	1	1
STDs, HIV and AIDS													
AIDS ¹⁰ (October - December)	7 days	--	11	24	31	12	19	14	22	17	20	4.5	21
Chancroid	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Chlamydia	7 days	109	1241	1301	1539	1313	1555	1352	1587	1142	1522	1301	1547
Gonorrhea	7 days	9	201	184	223	190	225	225	268	183	251	190	238
HIV infection ¹⁰ (October - December)	7 days	--	15	24	29	28	40	16	23	15	22	8.5	26
Syphilis	7 days	0	19	22	25	26	33	14	18	14	18	19	21.5

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 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