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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 Influenza

To report a suspect or known case of influenza A, novel virus or ICU-hospitalization or pediatric death due to influenza, please contact the DuPage County Health Department at (630) 221-7553.

Influenza (flu) viruses typically circulate widely in the U.S. annually from the late fall through early spring. Although most persons who become infected with influenza viruses will recover without sequelae, influenza can cause **serious illness and death, particularly among persons aged ≥65 years and <2 years and those with medical conditions that confer high risk for complications from influenza.**¹ During 31 seasons between 1976 and 2007, estimated influenza-associated deaths ranged from 3,000 to 49,000 annually. During a regular flu season, about 90% of deaths occur in people 65 years and older.²

Routine annual influenza vaccination is recommended for all persons aged ≥6 months who do not have contraindications. Optimally, vaccination should occur before onset of influenza activity in the community. Health care providers should offer vaccination by October, if possible. Vaccination should continue to be offered as long as influenza viruses are circulating. **To avoid missed opportunities for vaccination, providers should offer vaccination to unvaccinated persons aged ≥6 months during routine health care visits and hospitalizations when vaccine is available.**³

For 2015–16, U.S.-licensed **trivalent** influenza vaccines will contain hemagglutinin (HA) derived from an A/California/7/2009 (H1N1)-like virus, an A/Switzerland/9715293/2013 (H3N2)-like virus, and a B/Phuket/3073/2013-like (Yamagata lineage) virus. This represents changes in the influenza A (H3N2) virus and the influenza B virus as compared with the 2014–15 season. **Quadrivalent** influenza vaccines will contain these vaccine viruses, and a B/Brisbane/60/2008-like (Victoria lineage) virus, which is the same Victoria lineage virus recommended for quadrivalent formulations in 2013–14 and 2014–15. **Influenza vaccination should not be delayed to procure a specific vaccine preparation if an appropriate one is already available.**³

For healthy children aged 2 through 8 years who have no contraindications or precautions, either live attenuated influenza vaccine (LAIV) or inactivated influenza vaccine (IIV) is an appropriate option. **No preference is expressed for LAIV or IIV for any person aged 2 through 49 years for whom either vaccine is appropriate.** An age-appropriate formulation of vaccine should be used.³ There are **several flu vaccine options for the 2015-2016 flu season**; for additional information on vaccine options, see www.cdc.gov/flu/protect/vaccine/vaccines.htm.

Centers for Disease Control and Prevention (CDC) recommends annual influenza vaccination for all health care personnel (HCP) to reduce influenza-related morbidity and mortality among both HCP and their patients and to decrease absenteeism among HCP. The overall HCP influenza vaccination coverage estimate in the U.S. for the 2014–15 season was 77.3%, similar to the previous influenza season but higher than the 2010–11 through 2012–13 seasons.⁴

HCP working in settings with employer vaccination requirements had the highest influenza vaccination coverage. During the 2014–15 season, vaccination coverage was 96.0% among HCP working in settings where vaccination was required. Vaccination coverage was highest among physicians, pharmacists, nurse practitioners and physician assistants, nurses, and HCP working in hospital settings. **Coverage was lowest among assistants/aides and HCP working in long-term care (LTC) settings.** Offering vaccination at the workplace at no cost was associated with higher vaccination coverage.⁴

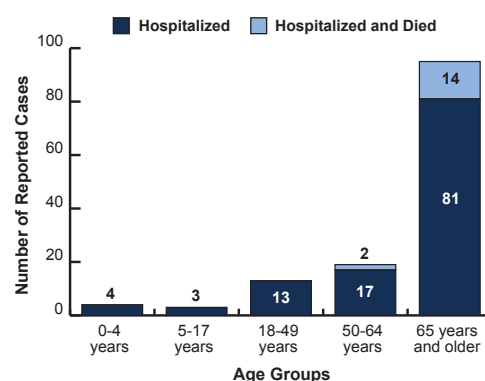
Employers and health care administrators can make use of the **Guide to Community Preventive Services** (at www.thecommunityguide.org/worksites/flu-hcw.html), and LTC employers can also use the **LTC web-based toolkit** (at www.cdc.gov/flu/toolkit/long-term-care/index.htm), which provides access to resources, strategies, and educational materials for increasing influenza vaccination among HCP in LTC settings.⁴ HCP should also follow **handwashing, respiratory hygiene, and other infection control** recommendations to prevent influenza transmission.

Antiviral treatment is recommended as early as possible for any patient with confirmed or suspected influenza who is hospitalized, has severe, complicated, or progressive illness, or is at higher risk for influenza complications. Clinical trials and observational data show that early antiviral treatment can **shorten the duration of fever and illness symptoms**, and may **reduce the risk of complications** from influenza (e.g., otitis media in young children, pneumonia, and respiratory failure). Early treatment of hospitalized patients can reduce death. In hospitalized children, early antiviral treatment has been shown to shorten the duration of hospitalization. **Clinical benefit is greatest when antiviral treatment is administered early, especially within 48 hours of influenza illness onset.**⁵

References:

1. www.cdc.gov/mmwr/pdf/rr/rr6207.pdf
2. www.cdc.gov/flu/protect/keyfacts.htm
3. www.cdc.gov/mmwr/preview/mmwrhtml/mm6430a3.htm
4. www.cdc.gov/mmwr/preview/mmwrhtml/mm6436a1.htm
5. www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm

Reported Influenza Cases in the Intensive Care Unit (ICU) by Age Group in DuPage County, September 2014 - August 2015 (n=134)*



* Reports do not include deceased cases not admitted to the ICU. Source: Illinois-National Electronic Disease Surveillance System

DUPAGE COUNTY HEALTH DEPARTMENT

CASES¹ OF REPORTABLE DISEASES*

* Last updated by the Illinois Department of Public Health in February 2014

CD REVIEW

Volume 11, No. 9 September 2015

Vaccine Preventable Diseases	Report Within	2015		2014		2013		2012		2011		Median	
		Aug	Jan-Aug	Jan-Aug	Total	Jan-Aug	Total	Jan-Aug	Total	Jan-Aug	Total	Jan-Aug	Total ('11-'14)
Chickenpox (varicella)	24 hrs	3	24	51	76	40	78	64	93	43	82	43	80
Diphtheria	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Haemophilus influenzae, invasive	24 hrs	0	9	2	5	6	10	9	11	8	15	8	10.5
Hepatitis A	24 hrs	1	4	6	8	4	4	6	8	5	8	5	8
Hepatitis B	7 days	0	1	3	5	2	3	4	5	1	1	2	4
Hepatitis B (carriers)	7 days	7	81	61	112	86	110	66	101	68	113	68	111
Influenza, deaths in < 18 yrs old	7 days	0	0	0	0	1	1	0	0	0	0	0	0
Influenza, ICU admissions	24 hrs	0	36	46	152	52	78	8	64	24	24	36	71
Measles (rubeola)	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Mumps	24 hrs	1	6	2	2	0	0	1	1	2	3	2	1.5
Neisseria meningitidis, invasive	24 hrs	0	1	0	0	0	0	0	0	1	2	0	0
Pertussis (whooping cough)	24 hrs	2	17	12	22	26	43	156	195	136	268	26	119
Polio	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
Streptococcus pneumoniae, invasive disease, in those < 5 yrs old	7 days	0	0	1	2	3	4	3	5	9	13	3	4.5
Tetanus	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Other Communicable Diseases													
Anaplasmosis ²	7 days	0	1	1	3	0	0	1	2	3	3	1	2.5
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
Chikungunya fever ³	7 days	0	2	0	0	NR	NR	NR	NR	NR	NR	1	0
Cholera	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Creutzfeldt-Jakob disease	7 days	0	1	2	2	0	0	1	1	1	3	1	1.5
Cryptosporidiosis	7 days	1	3	2	2	4	7	2	2	3	5	3	3.5
Cyclosporiasis	7 days	0	1	0	1	4	4	0	0	0	0	0	0.5
Dengue fever ³	7 days	0	3	1	1	1	3	1	1	1	1	1	1
Ehrlichiosis ²	7 days	0	1	0	0	0	0	0	0	0	0	0	0
Enteric E. coli infections ⁴	24 hrs	0	8	12	18	49	54	14	19	18	22	14	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	2	2	0	0	1	1	1	1	1	1
Hepatitis C (cases & carriers)	7 days	15	164	158	242	113	182	120	171	115	189	120	185.5
Hepatitis D	7 days	0	0	0	0	0	0	0	0	0	1	0	0
Histoplasmosis	7 days	0	3	4	7	0	1	2	2	0	1	2	1.5
Influenza A, novel virus	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Legionellosis	7 days	0	7	20	26	29	39	15	25	6	14	15	25.5
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	1	1	2	1	2	1	2	2	2	1	2
Lyme disease ²	7 days	1	22	17	22	36	39	25	27	27	32	25	29.5
Malaria	7 days	0	2	1	2	7	7	2	2	1	7	2	4.5
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	10	11	5	6	NR	NR	NR	NR	NR	NR	8	6
Rabies, human case	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Rabies, potential exposure	24 hrs	26	55	40	51	38	44	41	43	21	30	40	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	0	1	1	0	0	0	0
Salmonellosis	7 days	12	86	65	115	84	128	77	123	70	95	77	119
Severe Acute Respiratory Syndrome	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Shigellosis	7 days	5	15	11	18	13	18	11	20	10	22	11	19
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	1	5	5	9	2	3	4	7	2	3	4	5
Staphylococcus aureus, methicillin resistant (MRSA), community cluster ⁶	24 hrs	0	1	0	0	0	0	1	1	0	0	0	0
Staphylococcus aureus (vancomycin-resistant)	24 hrs	0	0	0	0	0	0	0	0	1	1	0	0
Streptococcal infections, group A invasive disease ⁷	24 hrs	2	17	23	29	17	21	17	20	23	30	17	25
Toxic shock syndrome ⁸	7 days	0	0	0	0	1	1	0	0	1	1	0	0.5
Trichinosis	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Tuberculosis	7 days	0	12	19	34	20	35	17	26	16	23	17	30
Tularemia	3 hrs	0	0	0	0	0	0	1	1	0	0	0	0
Typhoid fever	24 hrs	0	2	4	5	0	2	1	2	3	3	2	2.5
Typhus	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Vibriosis (non-cholera)	7 days	3	4	2	3	1	2	4	4	2	3	2	3
West Nile virus disease ³	7 days	3	3	1	5	0	6	38	56	1	2	1	5.5
Yersiniosis	7 days	0	0	2	3	1	2	3	3	2	3	2	3
STDs, HIV and AIDS													
AIDS ⁹ (July-September)	7 days	--	7	14	15	21	25	12	17	13	16	13	16.5
Chancroid	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Chlamydia	7 days	155	1394	1297	2056	1248	1883	1254	1861	1051	1599	1254	1872
Gonorrhea	7 days	20	177	135	242	178	258	169	239	168	241	169	241.5
HIV infection ⁹ (July-September)	7 days	--	7	24	29	21	28	15	20	19	24	19	26
Syphilis ¹⁰	7 days	4	21	24	41	20	34	11	19	19	24	20	29

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 "Arboreal 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.dph.illinois.gov

DuPage:
www.dupagehealth.org

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