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General Information

Communicable Disease
and Epidemiology
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Environmental Health
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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 Human Papillomavirus (HPV)

More information on
HPV prevention is available at:
www.cdc.gov/hpv/hcp/index.html.

Background: Human papillomavirus (HPV) is a very common virus that infects epithelial tissue, with more than 120 HPV types identified. Most HPV types infect cutaneous epithelial cells and cause common warts, such as those that occur on the hands and feet. Approximately 40 HPV types infect mucosal epithelial cells on the genitals, and the mouth and throat. Although most HPV infections are asymptomatic and resolve spontaneously or become undetectable, some HPV infections can persist and lead to cancer.¹

Persistent infections with high-risk (oncogenic) HPV types can cause cancers of the cervix, anus, penis, vulva, and vagina, as well as the oropharynx (defined as the back of the throat, including the base of the tongue and tonsils). The most common **high-risk** types are **16 and 18**.¹ Infection with low-risk (non-oncogenic) HPV types can cause genital warts and rarely laryngeal papillomas. These types can also cause benign or low-grade cervical cell abnormalities. The most common **low-risk** HPV types are **6 and 11**.¹

Statistics: About 79 million Americans are infected with HPV, and roughly 14 million people become infected each year, mostly occurring among teens and young adults. Almost every person who is sexually active will acquire HPV at some time in their life.¹

Based on analysis of 2008-2012 national cancer registry and surveillance data by the Centers for Disease Control and Prevention (CDC), an **average of 38,793 HPV-associated cancers (11.7 per 100,000 persons) were diagnosed annually**, including **23,000 (59%) among females and 15,793 (41%) among males**. Among these cancers, CDC estimates that **30,700 (79%) can be attributed to HPV**, and **28,500 of these are attributable to HPV types that are preventable with the 9-valent HPV vaccine**.²

Prevention: Most cervical cancers are preventable with regular screening for precancerous lesions among women aged 21–65 years linked with follow-up for abnormal test results; there are currently no effective population-based screening strategies for the other HPV-associated cancers.² **HPV infection and precancerous/dysplastic lesions of the oropharynx cannot be screened for, making prevention of infection a priority**.¹

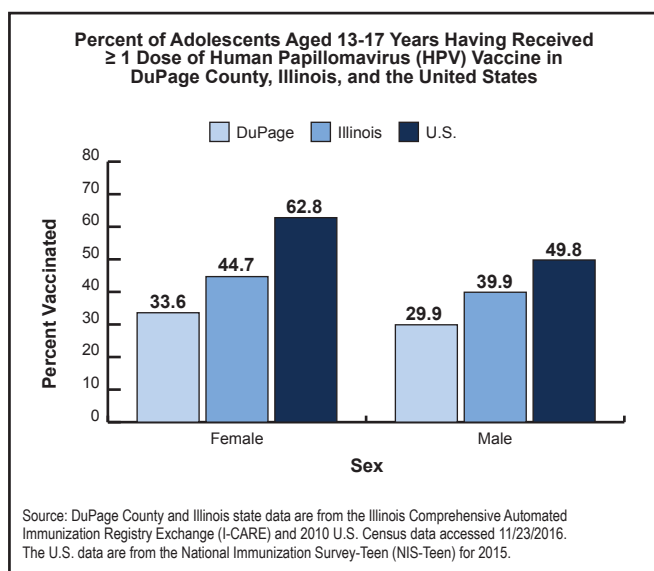
The Advisory Committee on Immunization Practices (ACIP) recommends routine vaccination with any of the available HPV vaccines (bivalent, quadrivalent, or 9-valent) for **females** and quadrivalent or 9-valent for **males**. Vaccination is recommended at ages **11–12 years and through age 26 years for females and age 21 years for males**, if they were not previously vaccinated.²

On October 19, 2016, CDC announced that now **two doses of HPV vaccine—rather than the previously recommended three doses—are recommended for 11 to 12 year olds, to protect against cancers caused by HPV**. The second dose should be given 6-12 months after the first dose. Teens and young adults who start the series later, at ages **15 through 26 years, will continue to need three doses** of HPV vaccine to protect against cancer-causing HPV infection.³

CDC and ACIP made this recommendation after a thorough review of studies, including data from clinical trials showing **two doses of HPV vaccine in younger adolescents (aged 9-14 years) produced an immune response similar or higher than the response in young adults (aged 16-26 years) who received three doses**.³

Generally, preteens receive HPV vaccine at the same time as whooping cough and meningitis vaccines. **Two doses of HPV vaccine given at least six months apart at ages 11 and 12 years will provide safe, effective, and long-lasting protection against HPV cancers**. Adolescents **ages 13-14 are also able to receive HPV vaccination on the new 2-dose schedule**. CDC encourages clinicians to begin implementing the 2-dose schedule in their practice to protect their preteen patients from HPV cancers.³

Increasing vaccination coverage could decrease the cancer incidence and disparities in the United States.² Clinicians should recommend the HPV vaccine series the same way other adolescent vaccines are recommended. Try saying, “Your child is due for vaccinations today to help protect against meningitis, HPV cancers, and pertussis. We’ll give those shots at the end of the visit.”⁴ Research consistently shows that a **provider’s recommendation to vaccinate is the single most influential factor in convincing parents to vaccinate their children**.⁵



References:

1. www.cdc.gov/hpv/hcp/need-to-know.pdf
2. www.cdc.gov/mmwr/volumes/65/wr/pdfs/mm6526a1.pdf
3. www.cdc.gov/media/releases/2016/p1020-hpv-shots.html
4. www.cdc.gov/vaccines/who/teens/for-hcp-tipsheet-hpv.pdf
5. www.immunize.org/nsit.d/n58/recommend_hpv.pdf

DUPAGE COUNTY HEALTH DEPARTMENT

CASES¹ OF REPORTABLE DISEASES*

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

CD REVIEW

Volume 12, No. 11 November 2016

	Report Within	2016		2015		2014		2013		2012		Median	
		Oct	Jan-Oct	Jan-Oct	Total	Jan-Oct	Total	Jan-Oct	Total	Jan-Oct	Total	Jan-Oct	Total ('12-'15)
Vaccine Preventable Diseases													
Chickenpox (varicella)	24 hrs	5	49	28	36	63	76	62	78	83	95	62	77
Diphtheria	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
<i>Haemophilus influenzae</i> , invasive	24 hrs	0	7	12	15	4	5	8	10	9	11	8	10.5
Hepatitis A	24 hrs	0	2	4	5	8	8	4	4	7	8	4	6.5
Hepatitis B	7 days	0	2	2	2	3	5	3	3	4	5	3	4
Hepatitis B (carriers)	7 days	9	94	106	137	90	112	97	110	80	101	94	111
Influenza, deaths in < 18 yrs old	7 days	0	0	0	0	0	0	1	1	0	0	0	0
Influenza, ICU admissions	24 hrs	1	64	38	43	48	152	57	78	11	64	48	71
Measles (rubeola)	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Mumps	24 hrs	1	9	6	8	2	2	0	0	1	1	2	1.5
<i>Neisseria meningitidis</i> , invasive	24 hrs	0	1	1	1	0	0	0	0	0	0	0	0
Pertussis (whooping cough)	24 hrs	8	92	29	49	19	22	39	43	181	195	39	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	2	0	0	3	3	4	4	5	5	3	3.5
Tetanus	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Other Communicable Diseases													
Anaplasmosis ²	7 days	0	1	3	3	3	3	0	0	1	2	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
Campylobacteriosis	7 days	14	149	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Chikungunya fever ³	7 days	0	2	2	2	0	0	NR	NR	NR	NR	2	1
Cholera	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Creutzfeldt-Jakob disease	7 days	0	2	1	1	2	2	0	0	1	1	1	1
Cryptosporidiosis	7 days	0	13	3	5	2	2	5	7	2	2	3	3.5
Cyclosporiasis	7 days	0	4	1	1	0	1	4	4	0	0	1	1
Dengue fever ³	7 days	1	2	3	3	1	1	3	3	1	1	2	2
Ehrlichiosis ²	7 days	0	1	1	1	0	0	0	0	0	0	0	0
Enteric <i>E. coli</i> infections ⁴	24 hrs	0	20	11	14	17	18	52	54	16	19	17	18.5
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	2	2	0	0	1	1	0	0.5
Hepatitis C (cases & carriers)	7 days	13	214	208	237	207	242	148	181	156	196	207	216.5
Hepatitis D	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Histoplasmosis	7 days	0	6	3	3	6	7	0	1	2	2	3	2.5
Influenza A, novel virus	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Legionellosis	7 days	4	27	14	18	24	26	36	39	24	25	24	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	0	2	2	2	2	1	2	2	2	2	2
Lyme disease ²	7 days	2	30	29	30	21	22	39	39	26	27	29	28.5
Malaria	7 days	1	10	3	4	1	2	7	7	2	2	3	3
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	10	16	16	6	6	NR	NR	NR	NR	10	11
Rabies, human case	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Rabies, potential exposure	24 hrs	3	52	70	73	51	51	44	44	42	43	51	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	3	0	0	0	0	0	0	1	1	0	0
Salmonellosis	7 days	9	102	119	133	93	115	117	128	102	123	102	125.5
Severe Acute Respiratory Syndrome	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Shigellosis	7 days	1	19	20	27	16	18	16	18	18	20	18	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
<i>Staphylococcus aureus</i> , methicillin resistant (MRSA), in those < 61 days old	24 hrs	0	10	8	10	6	9	2	3	6	7	6	8
<i>Staphylococcus aureus</i> , methicillin resistant (MRSA), community cluster ⁶	24 hrs	0	1	0	0	0	0	0	0	1	1	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	1	15	19	22	26	29	19	21	17	20	19	21.5
Toxic shock syndrome ⁸	7 days	0	0	0	0	0	0	1	1	0	0	0	0
Trichinosis	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Tuberculosis	7 days	3	32	24	39	22	34	25	35	19	26	24	34.5
Tularemia	3 hrs	0	0	0	0	0	0	0	0	1	1	0	0
Typhoid fever	24 hrs	0	0	2	3	4	5	0	2	1	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	6	4	4	3	3	2	2	4	4	4	3.5
West Nile virus disease ³	7 days	1	10	9	9	5	5	6	6	55	56	9	7.5
Yersiniosis	7 days	0	3	1	1	3	3	2	2	3	3	3	2.5
Zika virus disease ³	7 days	1	9	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
STDs, HIV and AIDS													
AIDS ⁹ (October - December)	7 days	--	9	11	11	15	15	26	26	17	17	15	16
Chancroid	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Chlamydia	7 days	130	1836	1979	2382	1722	2056	1577	1883	1567	1861	1722	1969.5
Gonorrhea	7 days	21	297	258	307	194	242	218	258	197	239	218	250
HIV infection ^{9,10} (October - December)	7 days	--	22	38	38	37	37	47	47	33	33	37	37.5
Syphilis ¹¹	7 days	2	42	33	42	33	41	28	34	15	19	33	37.5

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