



Cook County Department of Public Health
 Promoting health. Preventing disease.
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CD UPDATE

October 2013

Influenza

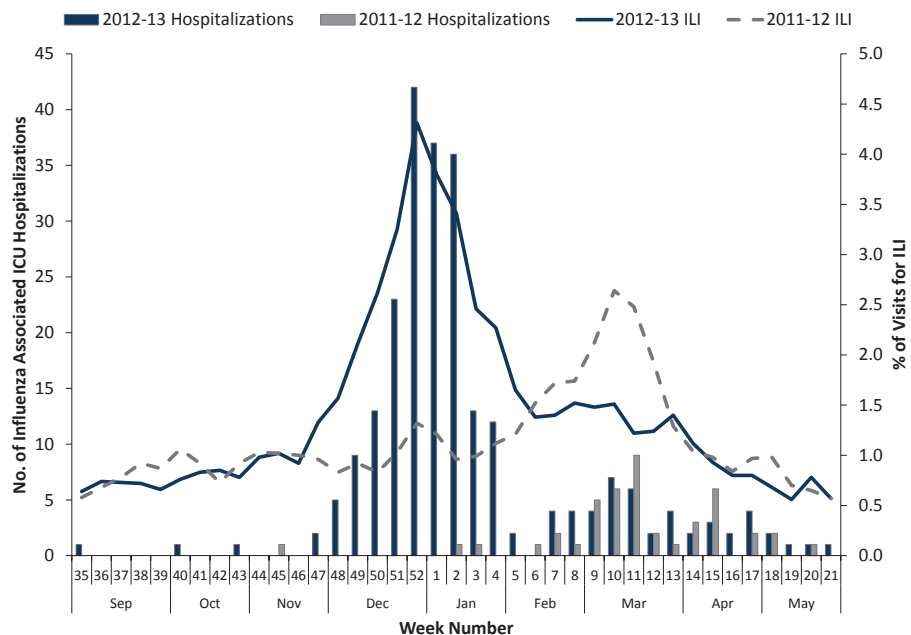
Influenza virus causes an upper respiratory tract infection with symptoms including abrupt onset of fever accompanied by chills, headache, malaise, muscle aches, and cough followed by sore throat and nasal congestion. Most people recover after three to seven days of illness; however, infections in young children, the elderly, persons with chronic diseases, pregnant women, and immunocompromised individuals can be severe and may result in hospitalization and sometimes death. Influenza season typically occurs from October through May. Nationally, the Centers for Disease Control and Prevention (CDC) estimates that approximately 5-20% of United States residents get influenza and 3,000-49,000 deaths occur each year¹.

In suburban Cook County, the extent of infection in the community is measured by Emergency Department (ED) visits for influenza-like illness (ILI²) and the severity of illness is assessed by the number of hospitalizations in intensive care units (ICUs). The 2012-2013 influenza season was moderately-severe. Compared to the 2011-2012 season, the 2012-2013 influenza season peaked earlier (December versus March), had twice the rate of ILI associated with ED visits (4% versus 2%), and accounted for 5.7 times more ICU hospitalizations (249 versus 44, see Figure 1).

Of the influenza-associated hospitalizations, 175 (70%) individuals had a chronic disease: 42% had acute cardiac disease, 42% had chronic lung disease, and 24% had diabetes. The majority of individuals who were hospitalized in the ICU were older than 65 years of age, with a rate of 52.6 per 100,000 population, followed by individuals aged 50-64 years of age and children 0-4 years of age, both with rates of 8.4 per 100,000 population. Of the 249 ICU hospitalizations, 49 (20%) individuals died. Only 24% of the persons with influenza-associated hospitalization reported receiving the influenza vaccine.

Annual influenza vaccination is the best way to prevent influenza infection. The current CDC recommendation is for everyone six months and older be vaccinated. For the 2013-2014 season, a new quadrivalent vaccine is available that protects against four strains of influenza: two influenza A strains and two influenza B strains. Also, there is a trivalent vaccine that affords protection against three strains: two influenza A strains and one influenza B strain³. Both vaccines protect against influenza, and there is no reason to select one over the other. In addition, there are several new vaccine products available this season including an egg-free vaccine available to individuals 18-49 years of age and a high-dose vaccine approved for use in individuals 65 years of age and older³. It is best to receive the vaccine as early in the flu season as possible. Currently, influenza vaccine is widely available at physician's offices and local pharmacies.

Figure 1. Number of influenza-associated ICU hospitalizations and ILI visits, 2011-2012 and 2012-2013.



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To report a communicable disease, please call **708-633-8030** during regular business hours (8:30 AM - 4:30 PM).

To reach communicable disease staff after hours (4:30 PM - 8:30 AM), please call **708-633-4000** and follow the prompts.

Table 1. Morbidity for Selected Infectious Diseases, Suburban Cook County*, 2008-2013

Vaccine Preventable Diseases	2008	2009	2010	2011	2012	5 yr Median	2013†
Diphtheria	0	0	0	0	0	0	0
<i>Haemophilus influenzae</i> ¶	30	32	32	23	26	30	18
Hepatitis B							
Acute	66	34	26	25	15	26	11
Chronic	385	385	326	315	264	326	188
Measles	11	0	0	1	0	0	5
Mumps	19	14	4	2	4	4	2
Pertussis (Whooping cough)	92	98	142	280	461	142	79
Pneumococcal disease (invasive)§	32	23	17	9	7	17	7
Rubella	0	0	0	0	0	0	0
Tetanus	0	0	1	0	1	0	0
Selected Diseases							
Cryptosporidiosis	14	15	27	17	8	15	15
<i>E. coli</i> O157:H7	10	33	10	16	18	16	7
Giardiasis	72	79	78	81	73	78	51
Hepatitis A	46	36	5	6	6	6	8
Hepatitis C	811	806	852	920	868	852	588
Histoplasmosis	19	3	15	12	20	15	13
Legionnaires' disease	38	30	39	27	51	38	57
Listeriosis	11	10	6	6	4	6	6
Lyme Disease	9	23	32	31	36	31	36
Malaria	21	19	12	19	7	19	11
Meningococcal disease	22	8	3	3	3	3	0
Salmonellosis	282	285	356	260	308	285	228
Shigellosis	120	90	128	60	52	90	39
Streptococcal Invasive (Group A)	38	46	50	49	69	49	50
Tuberculosis	100	100	93	75	89	93	56
Typhoid Fever	5	3	6	8	2	5	3
WNV (neuroinvasive)	3	0	15	10	61	10	12
Sexually Transmitted Infections							
Chlamydia	8,219	8,204	8,825	8,398	8,941	8,398	6,104
Gonorrhea	2,560	2,196	2,093	2,067	2,102	2,196	1,345
HIV (not AIDS)	201	182	184	164	160§	182	73
AIDS	112	84	62	58	65§	62	27
Syphilis‡	89	133	151	171	134§	133	68

* Excludes Evanston, Oak Park, Skokie and Stickney Township (except for tuberculosis).

† Provisional cases through the first 3 quarters of 2013.

¶ Includes type B.

§ As of 3/08, reportable only in those < 5 years of age.

‡ Early syphilis (i.e., primary, secondary and early latent).

1. <http://www.cdc.gov/flu/about/qa/disease.htm#deaths>
2. Influenza-like illness: fever (temperature >100oF) and cough or sore throat, without another known cause.
3. <http://www.cdc.gov/flu/professionals/acip/2013-summary-recommendations.htm>