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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 novel influenza A 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 the early spring. Although most persons with influenza will recover without sequelae, influenza can cause **serious illness and death, particularly among older adults, very young children, pregnant women, and those with certain chronic medical conditions.**<sup>1</sup>

Persons of **all age groups are susceptible** to influenza. The Centers for Disease Control and Prevention (CDC) estimates that flu-related hospitalizations since 2010 ranged from 140,000 to 710,000, while flu-related deaths are estimated to have ranged from 12,000 to 56,000.<sup>2</sup> Complications, hospitalizations, and deaths from seasonal influenza are typically greatest among persons aged  $\geq 65$  years, children aged  $< 5$  years (and particularly those aged  $< 2$  years), and persons of any age who have medical conditions that confer increased risk for complications from influenza.<sup>3</sup>

"Flu season" in the U.S. can begin as early as October and last as late as May. During flu season, flu viruses circulate at higher levels in the U.S. population.<sup>2</sup> **Routine annual influenza vaccination is recommended for all persons aged  $\geq 6$  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 the end of October, if possible. Vaccination should continue to be offered as long as influenza viruses are circulating and unexpired vaccine is available. **To avoid missed opportunities for vaccination, providers should offer vaccination during routine health care visits and hospitalizations when vaccine is available.**<sup>1</sup>

For the **2017–18 season, quadrivalent and trivalent influenza vaccines** will be available. Inactivated influenza vaccines (IIVs) will be available in trivalent (IIV3) and quadrivalent (IIV4) formulations. Recombinant influenza vaccine (RIV) will be available in trivalent (RIV3) and quadrivalent (RIV4) formulations. **Live attenuated influenza vaccine (LAIV4) is not recommended for use** during the 2017–18 season due to concerns about its effectiveness against (H1N1)pdm09 viruses during the 2013–14 and 2015–16 seasons.<sup>1</sup> There are **several flu vaccine options for the 2017-18 flu season.**<sup>4</sup>

The **Advisory Committee on Immunization Practices (ACIP) and CDC recommend 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. Flu vaccination coverage among HCP has improved, but **remains below the national Healthy People 2020 target of 90%**. Early-season 2016–17 flu vaccination coverage among HCP was **68.5%**, similar to early-season coverage during the 2015–16 season (66.7%). During the previous two seasons, flu vaccination coverage increased by 12–13 percentage points from early season to the end of the season. Early-season flu vaccination coverage was **higher among HCP whose employers required (89.3%) or recommended (69.4%)** that they be vaccinated compared with HCP whose employer did not have a requirement or a recommendation regarding flu vaccination (26.0%).<sup>5</sup>

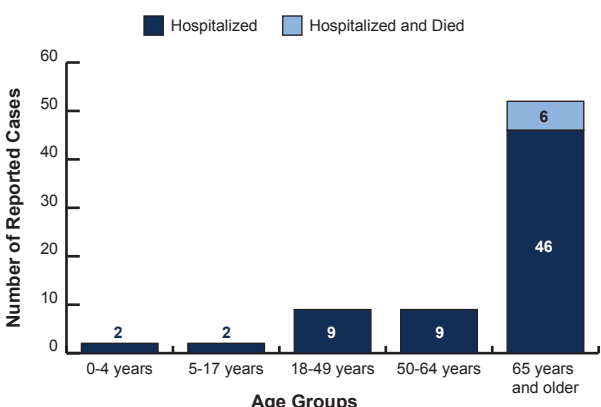
Employers and health care administrators should make use of the **Guide to Community Preventive Services** (at [www.thecommunityguide.org/worksites/flu-hcw.html](http://www.thecommunityguide.org/worksites/flu-hcw.html)), and long-term care (LTC) employers can also use the **LTC web-based toolkit** (at [www.cdc.gov/flu/toolkit/long-term-care/index.htm](http://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.<sup>5</sup> 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.**<sup>6</sup>

### References:

1. [www.cdc.gov/mmwr/volumes/66/rr/pdfs/rr6602.pdf](http://www.cdc.gov/mmwr/volumes/66/rr/pdfs/rr6602.pdf)
2. [www.cdc.gov/flu/protect/keyfacts.htm](http://www.cdc.gov/flu/protect/keyfacts.htm)
3. [www.cdc.gov/flu/about/disease/high\\_risk.htm](http://www.cdc.gov/flu/about/disease/high_risk.htm)
4. [www.cdc.gov/mmwr/volumes/66/rr/rr6602a1.htm?s\\_cid=rr6602a1\\_w#T1\\_down](http://www.cdc.gov/mmwr/volumes/66/rr/rr6602a1.htm?s_cid=rr6602a1_w#T1_down)
5. [www.cdc.gov/flu/fluview/hcp-ips-nov2016.htm](http://www.cdc.gov/flu/fluview/hcp-ips-nov2016.htm)
6. [www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm](http://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm)

Reported Influenza Cases in the Intensive Care Unit (ICU) by Age Group in DuPage County, October 2016 - September 2017\* (n=74)\*\*



\*Data for 2017 are provisional as of 9/21/2017.  
\*\*Reports do not include deceased cases not admitted to the ICU.  
Source: Illinois-National Electronic Disease Surveillance System

