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The Florida Department of Health in Seminole County
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Centers for Disease Control and Prevention 2013-2014 Influenza Season Summary

On February 20, 2014, The Centers for Disease Control and Prevention (CDC) published interim adjusted estimates on how well the 2013-2014 influenza vaccine protected against having to go to the doctor for flu this season.

The MMWR report **"Interim Estimates of 2013-14 Seasonal Influenza Vaccine Effectiveness –United States, February 2014"** is available on the CDC website at

http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6307a1.htm?s_cid=mm6307a1_w.

Key Points from the report are summarized below:

- The vaccine effectiveness (VE) study results indicate that influenza vaccination offered substantial protection against the flu this season, reducing a vaccinated person's risk of having to go to the doctor for flu illness by about 61% across all ages.
- VE estimates against influenza A and B ranged from 52% for people 65 and older to 67% for children 6 months to 17 years. More specifically, VE estimates against this season's predominant H1N1 strain ranged from 56% in people 65 and older to 67% for children 6 months to 17 years of age.
- The interim VE estimates this season are comparable to results from studies during other seasons when the viruses in the vaccine have been well-matched with circulating influenza viruses.
- The estimates also are similar to interim estimates from Canada for 2013-14 published recently (http://immunize.cpha.ca/en/diseases-vaccines/influenza.aspx).
- While flu vaccine can vary in how well it works, vaccination offers the best protection currently available against influenza infection. CDC recommends that everyone 6 months and older get an annual flu vaccine.
- The VE study results show that vaccinated people were substantially better off this season than people who did not get vaccinated.
- The surveillance report highlights the predominance of the 2009 H1N1 flu virus this season and the high proportions of flu hospitalizations and deaths that have occurred in younger- and middle-aged adults this season.

Also in this issue:

- Of the hospitalizations reported to CDC this season, 61% have been in people 18 to 64 years old. More commonly, most flu hospitalizations occur in people 65 and older. Usually 50-60% of flu hospitalizations occur in people aged 65 years and older.
- Additionally, this season, people 25 years to 64 years of age have accounted for about 60% of flu deaths compared with 18%, 30%, and 47% for the three previous seasons respectively. During 2009-2010, people 25 years to 64 years accounted for an estimated 63% of deaths.
- These hospitalizations and deaths are a somber reminder that flu can be serious for anyone - not just the very young and people aged 65 and older and underscores the importance of vaccination for everyone. Unfortunately, younger adults - especially those who are otherwise healthy - are less likely to get vaccinated.
- Estimates as of early-November 2013 indicate that among people 18-64 years of age, only 34% had been vaccinated. This vaccine coverage estimate is lower than vaccine coverage estimates for people aged 6 months-17 years of age (41%) and people 65 and older (62%) in the U.S. during that same time period.
- Seasonal flu is responsible for severe illness and death every year, but who is most affected each season can vary depending on the predominant circulating virus.
- This season's pattern of higher levels of flu-related deaths and hospitalizations among younger and middle-aged adults is similar to what was seen in 2009 when the H1N1 virus emerged to cause a pandemic.

A report on severe influenza illness among California residents younger than 65 years was also published in the MMWR. The report, **"Influenza-Associated Intensive-Care Unit Admissions and Deaths - California, September 29, 2013-January 18, 2014,"** is available at

http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6307a2.htm?s_cid=mm6307a2_w.

- This MMWR describes the epidemiologic, laboratory, and clinical characteristics of 405 severe Influenza cases (94 influenza-associated deaths and 311 intensive care unit [ICU] admissions) among California residents younger than 65 years old as reported to the California Department of Public Health (CDPH).
- The number of fatal and ICU cases reported to the CDPH as of January 18, 2014 is more than has been recorded in any season since the 2009 pandemic.
- Of 405 ICU and fatal influenza cases, 266 (66%) occurred among patients aged 41-64 years; 39 (10%) severe influenza illnesses occurred among children aged < 18 years.
- Only six (21%) of 28 patients with fatal illness whose vaccination status was known had received 2013–14 seasonal influenza vaccine ≥2 weeks before symptom onset.
- Of 80 patients who died for whom sufficient information was available, 74 (93%) had underlying medical conditions known to increase the risk for severe influenza, as defined by the Advisory Committee on Immunization Practices (ACIP).
- Of 47 hospitalized patients with fatal illness and known symptom onset and antiviral therapy dates, only eight (17%) received neuraminidase inhibitors within 48 hours of symptom onset.
- This report supports previous recommendations that vaccination is important to prevent influenza virus infections that can result in ICU admission or death, particularly in high-risk populations, and that empiric antiviral treatment should be promptly initiated when influenza virus infection is suspected in hospitalized patients, despite negative results from rapid diagnostic tests.

In the same MMWR, CDC published a third report with a surveillance update on flu activity in the United States so far this season.

The report entitled **"MMWR Update: Influenza Activity - United States, September 29, 2013-February 8, 2014"** is available at

http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6307a3.htm?s_cid=mm6307a3_w

- The majority of patients with fatal illness tested positive for 2009 H1N1 virus, suffered from underlying medical conditions that predisposed them to severe influenza complications (most commonly diabetes, COPD, asthma and morbid obesity), and had not received 2013-14 seasonal influenza vaccine.
- The 2009 H1N1 virus has continued to circulate since the pandemic as a seasonal flu virus, but this is the first flu season since the pandemic that this virus has circulated so widely.
- All flu vaccines this season are designed to protect against H1N1 and VE against H1N1 this season was estimated to be 62% for all age groups.
- At this time, even with a recent decrease in several key indicators, influenza activity remains elevated overall nationally and is expected to continue for a number of weeks in certain parts of the country.
- Annual influenza vaccination efforts should continue for as long as influenza viruses are circulating.
- Influenza vaccination is especially important for people at high risk for serious flu complications including: people with underlying chronic medical conditions such as asthma, diabetes, heart disease, or neurological conditions; pregnant women; those younger than 5 years or older than 65 years of age; or anyone with a weakened immune system. A full list of high risk factors is available at

  http://www.cdc.gov/flu/about/disease/high_risk.htm.
- While vaccination is the first and best way to prevent flu, CDC recommends antiviral medications as a second line of defense to treat influenza in certain patients, regardless of vaccination status.
- Antiviral treatment can avert serious outcomes and should begin as quickly as possible in high risk persons, including people 65 and older, young children, pregnant women, and people with certain underlying conditions like asthma, heart disease, diabetes and neurological disorders.
- A health care provider can determine if the patient needs influenza antiviral drugs. These drugs work best when started soon after influenza symptoms begin (within 2 days), but observational studies have shown that giving antivirals 48 or more hours after symptom onset can still prevent serious flu-related outcomes.
- In addition to vaccination and antiviral drugs, everyday preventive actions can help mitigate the risk of infection. Flu spreads mainly in droplets expelled when people with flu cough, sneeze or talk.
- As always, stay away from people who are sick. If you are sick, stay home to avoid spreading your illness to others.
- At this point in the season, people may have to check with more than one vaccine provider in order to locate vaccine, but supplies of vaccine should still be available. Influenza vaccine continues to be available in Seminole county.
- CDC routinely recommends that vaccination efforts continue as long as influenza viruses are circulating. People seeking vaccination may need to call more than one provider to locate vaccine at this time. The flu vaccine finder at http://flushot.healthmap.org/ may be helpful.

Thank You For Your Participation!

The Epidemiology Program would like to thank the following healthcare providers for their diligence in timely reporting from Florida's "List of Reportable Diseases/Conditions":

Joanne Barnett, RN, Central Florida Regional Hospital
Veronica Butler, RN, Florida Hospital
Sandra Delahoz, RN, South Seminole Hospital

For more information about Florida's List of Reportable Diseases/Conditions, please contact Tania Slade, MPH at 407-665-3266

Selected Diseases/Conditions Reported to the DOH-Seminole	2014 through Week 5	2013 through Week 5	2012 through Week 5	2011–2013 Average through Week 5
AIDS*	1	2	6	3
Animal Bite to Humans**	**3**	2	0	**1.3**
Animal Rabies	0	2	0	0.7
Campylobacteriosis	1	4	6	5.3
Chlamydia	82	123	120	123.3
Cryptosporidiosis	**1**	0	2	**0.7**
Cyclosporiasis	0	0	0	0
Dengue	**0**	0	0	**0**
E. coli Shiga toxin-producing	**2**	2	0	**1.0**
Giardiasis	0	1	2	1.7
Gonorrhea	20	30	22	**23.7**
Haemophilus influenzae (invasive)	**0**	2	0	0.7
Hepatitis A	0	0	2	0.7
Hepatitis B (acute and chronic)	**6**	3	7	**5.3**
Hepatitis C (acute and chronic)	**40**	28	24	**28.7**
Hepatitis B in Pregnant Women	0	0	0	0
HIV*	1	4	3	3.0
Lead poisoning	0	0	1	0.7
Legionellosis	0	1	0	1.0
Lyme Disease	0	0	2	0.7
Meningococcal Disease	0	0	1	0.7
Pertussis	2	1	0	0.3
Salmonellosis	5	2	4	4.7
Shigellosis	0	0	9	3.3
S. pneumoniae – drug resistant	0	0	0	0.7
Syphilis	1	1	4	3.0
Tuberculosis	**1**	0	0	0.0
Varicella	**3**	0	5	**1.3**

* HIV data includes those cases that have converted to AIDS. These HIV cases cannot be added with AIDS cases to get combined totals since the categories are not mutually exclusive. Current AIDS/HIV data are provisional at the county level.

** Animal bite to humans by a potentially rabid animal resulting in a county health department or state health office recommendation for post-exposure prophylaxis (PEP), or a bite by a non-human primate.

Reported cases of diseases/conditions in **Bold** are >10% higher than the current three year average for the same time period.

Travel Immunizations

Global travel is a popular activity as we move into the spring and summer months. This, along with global events such as the winter Olympics and the World Cup, illustrate the importance of immunizing all U.S. travelers leaving for different areas of the world. Certain areas of the world contain different diseases that can negatively affect the health of U.S. international travelers, which is why vaccinations are critical to maintaining individual health while abroad and community health when returning home. The Florida Department of Health in Seminole County (DOH-Seminole) provides all of the important vaccinations suggested for travel, and DOH-Seminole can also provide up-to date travel advisories for the different regions of the world. Listed below are adult immunizations that are important for travelers.

Immunizations:

- Influenza
- Measles-Mumps-Rubella (MMR)
- Diptheria-tetanus-pertussis (DTaP)
- Varicella
- Hepatitis A & B
- Typhoid
- Rabies (if planning animal exposure)
- Yellow Fever
- Japanese Encephalitis (if planning to travel to Asia)
- Polio (1 adult vaccination)

The Florida Department of Health in Seminole County also recommends and can provide prescriptions for anti-malaria medication for travelers leaving for areas of the world where malaria is endemic.

For more information on the Florida Department of Health in Seminole County's Immunization Program please visit:

http://www.floridahealth.gov/chdSeminole/Immunizations.html

Or call:

(407) 665-3281

For additional information on travel advisories and immunizations please visit:

http://wwwnc.cdc.gov/travel/destinations/list

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Our mission is to protect, promote, and improve the health of all people in Florida through integrated state, county, and community efforts

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