**2014-15 Early Season Flu Vaccine Coverage Data**

**Key Messages and Data Summary**

**December 10, 2014**

**Overview and Key Points**

**Flu is unpredictable and every flu season is different. Even healthy children and adults can get flu and it can be serious. All persons 6 months and older should receive a flu vaccination every year. Protect yourself and those around you by getting your flu vaccine this season. Flu vaccination is the best protection available against flu.**

- CDC urges vaccination as well as flu treatment with antivirals this season as an important second line of defense to treat flu illness.
    - Despite the benefits of flu vaccination, only 40% of people in the U.S., 6 months and older had reported getting a flu vaccine this season as of early November 2014.
    - The flu vaccine protects against three or four different flu viruses, depending on which vaccine you got (trivalent or quadrivalent).
    - During the 2013-2014 flu season, flu vaccination prevented an estimated 7.2 million influenza-associated illnesses, 3.1 million medically attended illnesses, and 90,000 hospitalizations, according to a new CDC report in the Morbidity and Mortality Weekly Report (MMWR).

- Surveillance data indicate that influenza A (H3N2) viruses have predominated so far, with lower levels of detection of influenza B viruses and very few H1N1 viruses detected.
    - Of the H3N2 viruses that have been collected and analyzed in the United States October 1-November 22, 2014, about half (52%) are different (or "drifted") from the H3N2 vaccine virus.
        - Flu vaccination can still reduce flu illnesses, doctors' visits, and missed work and school due to flu, as well as prevent flu-related hospitalizations and deaths.
    - Higher influenza-associated hospitalization rates and increased mortality have been observed during seasons when H3N2 viruses have predominated compared with seasons during which H1N1 or influenza B viruses have predominated.
    - CDC is getting reports of increased flu illnesses, flu hospitalizations and flu deaths. Five pediatric deaths have been reported this season already.

- Because of the H3N2 viruses are predominate so far this season, and some of them are different from the vaccine virus, CDC is urging flu vaccination of unvaccinated patients and reminding clinicians about the importance of antiviral medications for the treatment of flu illnesses.
    - Antiviral medications are not a substitute for vaccination (which prevents flu), but they are an important second line of defense to treat flu illness.
    - Treatment with antiviral drugs is especially important for people at high risk of serious flu complications or people who are very sick with flu.
    - It's especially important to get antiviral medicines quickly – as they work best when you start them within two days of the beginning of flu symptoms.

**Key Flu Vaccine Coverage Findings - Final Coverage Data Online Release -**
http://www.cdc.gov/flu/fluvaxview/nifs-estimates-nov2014.htm

**Overview**

As of early November 2014, 60 percent of the U.S. population age 6 months and older has not been vaccinated this flu season. Coverage was highest in children younger than 5 years old and adults age 65 years and older. As of early November 2014, flu vaccine coverage was similar to coverage at the same time last season for most groups surveyed. Coverage estimates, especially among school-aged children and estimates for pregnant women, have remained stable since the 2010-11 season. We are pleased to see an increase in coverage of 8 percentage points among nurse practitioners and physician assistants (NP/PA) and 5.1 percentage points among administrative/non-clinical support staff, compared to the same time last season. However, we still have more to do, particularly in getting more young and middle-aged adults vaccinated, as well as health-care personnel (HCP) working in long-term care facilities.

**Summary Key Points**

Children and Adults

- 40.3% of Americans age 6 months and older reported being vaccinated as of early November 2014.
    - This is similar to coverage estimates at the same time last season, and means that 60 percent of the U.S. population had (or have) not yet been vaccinated this flu season.

- Half of all children younger than 5 years old have not yet been vaccinated this season.
    - There have already been five flu-related pediatric deaths reported so far this season. There were more than 100 laboratory confirmed flu-related deaths among U.S. children last flu season.

Pregnant Women

- 43.5% of pregnant women had received a flu vaccine as of early November 2014.
    - Overall, this is similar to reported coverage at the same time last season (40.7%). While stable, it means that more than half of all pregnant women and their babies are not protected from the flu.
    - A strong recommendation by a healthcare professional combined with an offer to administer the flu vaccination at the time of a patient's visit remains one of the best ways to increase flu vaccination among pregnant women.
        - More and more pregnant women are reporting that their provider recommended flu vaccination to them.
    - Pregnant women who reported receiving a clinician recommendation from a healthcare professional and were offered flu vaccination had higher vaccination coverage (65.2%) compared with women who reported receiving a recommendation but no offer (25.5%) or reported receiving no recommendation (5.8%).
        - A clinician offer of vaccination was associated with higher vaccination coverage.

Health-care Personnel (HCP)

- As of November, 64.3% of HCP received a flu vaccine this season. This is similar to coverage estimates at the same time last season (62.9%).
    - While overall flu vaccination coverage among HCP was 64.3%, coverage was highest among:
        - Pharmacists (86.7%),
        - Nurse Practitioners/Physician Assistants (85.8%)
        - Physicians (82.2%),
        - Nurses (81.4%), and
        - Other clinical personnel (72%).
    - The lowest coverage was among administrative and nonclinical personnel (59.1%) and assistants/aides (46.6%).

- By work setting, coverage estimates were highest among HCP working in hospitals (78.7%) and lowest among HCP working in long-term care facilities (54.4%).
    - Early season flu vaccination coverage was higher among HCP whose employers required (85.8%) or recommended (68.4%) that they be vaccinated compared to those HCP whose employer did not have a policy or recommendation regarding flu vaccination (43.4%).
        - Targeted efforts would likely improve coverage among HCP groups, including ensuring convenient access to flu vaccine at the workplace over multiple days and at no cost to the HCP.

**Detailed Coverage Summary and Methods**

**Final Coverage Data Online Release -** http://www.cdc.gov/flu/fluvaxview/nifs-estimates-nov2014.htm

**General Population**

**Overview**

- **Among all people ≥6 months, early season (through early November 2014) flu vaccination coverage this season is 40.3%, which is similar to coverage at the same time during the 2013-14 season (39.5%).**

**Coverage by Age and Race/Ethnicity**

**Early season coverage for children age 6 months - 17 years was 42.0%, similar to last season (41.1%).**

- Among children, all age groups and race/ethnic groups had similar coverage compared to the same time last season.
- Coverage for children decreased with age:
  - 49.7% for children 6 months–4 years
  - 44.6% for children 5-12 years
  - 31.8% for children 13-17 years
- There were no racial/ethnic group differences in flu vaccination coverage among children.
  - 42.9% for Hispanic children
  - 40.2% for non-Hispanic white children
  - 46.3% for non-Hispanic black children
  - 42.6% for non-Hispanic multiple race or other children

**For adults overall, early season flu vaccination coverage this season was 39.7%, similar to last season (39.0%).**

- Flu vaccination coverage increased by 4.6 percentage points among adults 50-64 years (39.1% to 43.7%), but was similar among other age and race/ethnic groups compared to the same time last season.
- Coverage for adults increased with increasing age:
  - 30.6% for adults 18-49 years
  - 43.7% for adults 50-64 years
  - 61.3% for adults 65 years and older
- There were no racial/ethnic group differences in flu vaccination coverage among adults.
  - 36.3% for Hispanic adults
  - 40.6% for non-Hispanic white adults
  - 38.3% for non-Hispanic black adults
  - 41.0% for non-Hispanic multiple race or other adults

**Place of Vaccination**

**Most children (63.3%) were vaccinated at a doctor's office, and most adults (66.8%) were vaccinated somewhere other than at a doctor's office, such as at their workplace or a pharmacy early in the 2014–15 season.**

  - 33.2% of adults were vaccinated at a doctor's office
  - 25.0% of adults were vaccinated at a pharmacy (located in a drug store, grocery store, etc.)
  - 18.6% of adults were vaccinated at their workplace

- 9.5% of adults were vaccinated at a clinic, health center, or other medical place

**Pregnant Women**

**Overview**

- **Pregnant women are at high risk for flu-related severe illness, hospitalization, and death.**
  - Flu vaccination can protect pregnant women and their unborn babies, and even protect their newborn babies younger than 6 months old who are too young to be vaccinated themselves.
  - Flu shots are a safe way to protect the mother and her unborn child from serious illness and complications of flu, regardless of trimester.
  - A healthcare professional's recommendation and offer for flu vaccination was associated with increased vaccination coverage.
  - Flu vaccination coverage for pregnant women remains consistent for the fourth year in a row.
  - As of early November 2014, 43.5% of pregnant women received a flu vaccination.
    - In the previous two flu seasons, vaccination coverage increased by approximately 8-12 percentage points between early November and the end of the flu season, in April.

**Healthcare professionals play a key role in increasing flu vaccination coverage among pregnant women.**

- A recommendation from a healthcare professional combined with an offer to administer the flu vaccination at the time of visit remains one of the best ways to increase flu vaccination among pregnant women.
- Pregnant women who reported receiving a clinician recommendation and an offer of flu vaccination had higher vaccination coverage (65.2%) compared with women who reported receiving a recommendation but no offer (25.5%) or reported receiving no recommendation (5.8%).
  - Last season, a healthcare professional's offer of vaccination was associated with higher vaccination coverage even among women with negative attitudes towards the safety and efficacy of vaccination and women who were not concerned about flu infection.
  - All medical professionals should assess the vaccination status of pregnant women at each visit.
- Systems supporting healthcare professionals' recommendation and offer, such as standing orders and provider reminder systems, can reduce missed opportunities and improve vaccination coverage.
- If a healthcare professional is not able to administer the flu vaccine at the time of the visit, they should still recommend flu vaccination and refer the pregnant patient to a place where vaccinations are provided to protect her and her child.
- Each healthcare professional recommendation can be an important opportunity to improve vaccination coverage, especially where differences in coverage are seen among certain sub-groups such as education and race/ethnicity.

**Education messages from healthcare professionals to their pregnant patients should emphasize that vaccination can protect not only the pregnant woman, but also her unborn baby and her baby (up to 6 months after birth).**

- Healthcare professionals should offer information to pregnant patients on the safety and effectiveness of flu vaccination for both mother and baby.

- During the 2013-14 flu season, the top three reasons given for receiving an flu vaccination were 1) to protect their baby from flu (31.1%), 2) to protect themselves from flu (23.3%), and because their healthcare professional recommended it (14.8%).
- Tailored education of pregnant women designed to increase their knowledge about flu risks, vaccine safety, and vaccine effectiveness in support of a strong recommendation may increase demand and vaccination coverage.

**There were differences in early season coverage among pregnant women based on age and race/ethnicity.**

- Younger women (18-24 years of age) had lower vaccination coverage (35.9%) compared to women age 25-34 years (45.5%), and women age 35-49 years (50.0%).
- Flu vaccination coverage among Hispanic women was 47.9%, higher than for non-Hispanic black women (38.6%) and non-Hispanic other women (42.9%). Early season coverage among non-Hispanic white women was 43.0%

**Education level and health insurance improved vaccination coverage among pregnant women.**

- Women with education level beyond a college degree had higher coverage (56.5%) compared to women with a college degree (46.5%), some college (38.2%), or a high school degree or less (35.1%).
- Women with health insurance had higher coverage (private or military: 46.2%; public: 41.1%) than those with no health insurance (29.4%); less than 5% of the women surveyed did not have insurance during pregnancy.

**<u>Health-care Personnel (HCP)</u>**

**Overview**

- **As of November, 64.3% of HCP received a flu vaccine this season. This is similar to coverage estimates at the same time last season (62.9%).**
    - During the previous two seasons, flu vaccination coverage increased by 9–12 percentage points from early season to the end of the season.

- **Targeted efforts are needed to improve coverage among these HCP groups, including ensuring convenient access to flu vaccine at the workplace at no cost to the HCP.**

**Coverage by Occupation and Work Setting**

- **While overall HCP flu vaccination improved in the last several years, vaccination continued to be low among of assistants, aides, non-clinical support staff, and HCP working in long-term care.**

- Flu vaccination coverage increased from early season 2013–14 to early season 2014–15 by 8.0 percentage points among nurse practitioners and physician assistants and by 5.1 percentage points among administrative/non-clinical support staff. Coverage for other occupational groups was similar in early season 2013–14 and early season 2014–15.
    - Coverage was highest among:
        - Pharmacists (86.7%),

        - Nurse Practitioners/Physician Assistants (85.8%)
        - Physicians (82.2%),
        - Nurses (81.4%), and
        - Other clinical personnel (72%).
    - The lowest coverage was among administrative and nonclinical personnel (59.1%) and assistants/aides (46.6%).

- By work setting, coverage estimates were highest among HCP working in hospitals (78.7%) and lowest among HCP working in long-term care facilities (54.4%).
    - Coverage among HCP working in ambulatory care settings increased by 5.8 percentage points from early season 2013–14 to early season 2014–15.
    - Coverage in all other work settings was similar to reports from the same time last season.

**Employer Requirement or Recommendation and Reason for Vaccination**

- **Employers can reduce barriers to HCP vaccination by offering flu vaccination free of charge and onsite over multiple days and shifts.**
    - Protecting themselves from flu was the most common main reason reported by vaccinated HCP for receiving the flu vaccination.
    - An employer requirement for flu vaccination was the second most commonly reported main reason why HCP were vaccinated.

- **Early season flu vaccination coverage was highest among HCP whose employers required (85.8%) vaccination.**
    - Early season flu vaccination coverage was 68.4% among HCP whose employers recommended that they be vaccinated compared to those HCP whose employer did not have a policy or recommendation regarding flu vaccination (43.4%).
    - HCP working in hospitals were more likely to report an employer requirement for vaccination than HCP working in ambulatory care, long-term care facilities, and other settings.

**Methods and Background**

- CDC analyzed data from NIS-Flu for children 6 months through 17 years and the National Internet Flu Survey (NIFS) for adults 18 years and older.
- NIS-Flu data were collected by telephone surveys of parents conducted during Oct. 1–Nov. 15, 2014.
- NIFS data were collected through an Internet survey conducted during Oct. 29–Nov. 12, 2014 and included 3,325 participants.
- The results of the report on pregnant women were based on an Internet panel survey conducted in Oct. 29 and Nov. 5, 2014 among 2,109 women who were pregnant at any time since Aug. 2014.
- The results of the HCP report were based on an Internet panel survey conducted Oct. 29-Nov. 12, 2014 and included 1,908 HCP.
- Final 2014–15 flu season vaccination coverage estimates will be available after the end of the season.