

**Communicable Disease Epidemiology
and Immunization Section**

401 Fifth Avenue South, Suite 900
Seattle, WA 98104-1818

206-296-4774 Fax 206-296-4803
TTY Relay: 711

www.kingcounty.gov/health

Issue Brief – Influenza Vaccination for Pregnant Women, 2011-12 Season

Pregnant Women and Influenza

Pregnant women and infants are at increased risk for severe infections and hospitalization from influenza.

- Influenza is five times more likely to cause severe illness in pregnant women than in women who are not pregnant. Changes in the immune system, heart, and lungs during pregnancy make pregnant women more prone to serious illness from influenza.
- Risk of premature labor and delivery is increased in pregnant women with influenza.

Inactivated flu vaccine (flu shot) is considered safe and effective during any stage of pregnancy.

Influenza vaccination is the most effective way to protect pregnant women from influenza. The Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices (CDC/ACIP) recommends that women who are or plan to be pregnant during influenza season receive influenza vaccine as soon as possible and during any trimester of pregnancy.^{1,2} The American College of Obstetricians and Gynecologists (ACOG) and the American Academy of Family Physicians encourage pregnant and postpartum patients to get vaccinated against influenza.

- The ACOG Committee on Obstetric Practice considers influenza vaccination an **integral element of prenatal care**² to protect the pregnant woman from influenza.
- Two recent studies have demonstrated **flu vaccination of women during pregnancy also protects their newborns** for up to six months.^{3,4} Influenza hospitalization rates in infants <6 months of age are up to 10 times that of older children. No influenza vaccines are licensed for use in children <6 months of age.
- Influenza vaccines have been given to millions of pregnant women over the last decade and have not been shown to cause harm to women or their infants. Pregnant women should receive inactivated vaccine (flu shot) but should **NOT** receive the live attenuated vaccine (nasal spray). Postpartum women, even if they are breastfeeding, can receive either type of vaccine.

Advice from a healthcare provider plays a critical role in a pregnant or postpartum woman's decision to get vaccinated against influenza.

By recommending and providing influenza vaccine to their patients, prenatal health care providers can significantly increase rates of influenza vaccination among their pregnant patients.⁶

- A recent study from the Pregnancy Risk Assessment and Monitoring System (PRAMS) demonstrated that pregnant women who were either recommended or offered influenza vaccine by their health care providers were 15.5 times more likely to be vaccinated than women who were not recommended or offered the vaccine (62% vs. 4%) and that lack of a healthcare provider recommendation was associated with failure of pregnant women to be vaccinated.⁷
- A King County survey of women who were pregnant during the 2009-10 influenza season found that, among pregnant women receiving a recommendation, 68% reported receiving vaccination, more than six times higher than among women who didn't receive a provider recommendation. Additionally, the majority of pregnant women reported that their obstetrician's office would be the most convenient location for influenza vaccination.
- Our King County survey found that safety concerns and a perception that they were not at risk of serious illness were the most common reasons for not being vaccinated. Before 2009, annual flu vaccination rates among pregnant women were generally below 15%. Almost 50% of pregnant women were vaccinated during the 2010-11 flu season,⁵ and as of mid-November 2011, the rate has remained at over 43%. However, these rates are still below the national Healthy People 2020 goal of 80%.

Please see page 2 for steps you can take to help prevent influenza among pregnant women in your practice.

Influenza Vaccine and Pregnancy – How Can Healthcare Providers Help Their Patients?

General

- Educate staff and pregnant women about the increased risk of influenza in pregnant women, the importance of prevention through vaccination, and the safety of influenza vaccine.
- Issue standing orders for influenza vaccination of pregnant women and women who anticipate being pregnant during flu season
- Post influenza prevention announcements and provide brochures to prompt vaccination requests
- Establish an influenza vaccination reminder system for your patients
- Provide influenza vaccine to your patients

Pregnant women

- Recommend vaccination during any trimester throughout flu season (September through April)
- Discuss the importance of early treatment with antiviral medications of both vaccinated and unvaccinated pregnant patients if flu is suspected during periods of local influenza activity; delay of treatment while awaiting confirmation is not recommended.
- Recommend vaccination of post-partum women who were not vaccinated during pregnancy before hospital discharge
- Educate staff and postpartum women that breastfeeding is not a contraindication to vaccination
- Recommend (and provide where possible) vaccination of family members and other infant caregivers

For more information, go to:

- CDC's Web site on Influenza Vaccine and Pregnancy: www.cdc.gov/vaccines/pubs/preg-guide.htm
- Public Health – Seattle & King County: www.kingcounty.gov/health/flu
- Immunization Action Coalition of Washington: www.immunizewa.org/pregnant_women

REFERENCES

1. Centers for Disease Control and Prevention (CDC). Prevention and Control of Influenza with Vaccines (ACIP), *MMWR* 2010;59(No. RR-8):[35,37].
2. Influenza vaccination during pregnancy. Committee Opinion No. 468. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2010;116:1006–7
3. Zaman K, Roy E, Arifeen S, et al. Effectiveness of maternal influenza immunization in mothers and infants. *New England Journal of Medicine*. 2008;359:1555-1564.
4. Eick A, Uyeki T, Klimov A, et al. "Maternal Influenza Vaccination and Effect on Influenza Virus Infection in Young Infants". *Arch Pediatr Adolesc Med*. Published online October 4, 2010. doi:10.1001/archpediatrics.2010.192
5. CDC. "Pregnant Women and Flu Shots--Internet Panel Survey US November 2011" Helen Ding, MD; Gary L. Euler, DrPH; James A. Singleton, MS; Immunization Services Division, NCIRD. www.cdc.gov/flu/professionals/vaccination/pregnant-women.htm .
6. CDC. Influenza Vaccination in Pregnancy: Practices Among Obstetrician-Gynecologists --- United States, 2003--04 Influenza Season. *MMWR*. 2005;54(41):1050-1052.
7. Centers for Disease Control and Prevention (CDC). *MMWR* 2009;58(35);972-975.