Influenza (Flu) Vaccination among Pregnant Women in Rhode Island: The Role of the Prenatal Care Provider

Pregnant women who were either recommended or offered influenza vaccine by their healthcare providers were 3.7 times more likely to be vaccinated than women who were not recommended or offered the vaccine.

Background
Pregnant women have increased morbidity and mortality from seasonal influenza due to the changes that occur during pregnancy.\(^1\)\(^-\)\(^2\) Influenza vaccination with the trivalent inactivated vaccine is the most effective way to protect pregnant women from influenza and its complications.\(^3\)\(^-\)\(^4\) Recent studies have demonstrated that vaccination during pregnancy significantly reduced the chance of influenza illness among infants up to six months of age.\(^5\)\(^-\)\(^6\) Vaccination of pregnant women is a key way to protect these babies who are at high risk of severe illness from influenza, but who are too young to be vaccinated.\(^5\)\(^-\)\(^6\)

Before 2009, pregnant women had the lowest rates of seasonal influenza vaccination among all adult priority groups.\(^3\)\(^,\)\(^7\) In 2009, only about half of pregnant women received the influenza vaccine.\(^3\)\(^,\)\(^7\) Prenatal healthcare providers play a critical role in increasing rates of influenza vaccination among pregnant women by recommending and providing influenza vaccine to their patients.\(^3\)\(^,\)\(^7\)\(^-\)\(^8\)

Influenza Vaccination Recommendations for Pregnant Women
The Centers for Disease Control and Prevention’s (CDC) Advisory Committee on Immunization Practices (ACIP), the American College of Obstetricians and Gynecologists (ACOG) and the American Academy of Family Physicians (AAFP) recommend that women who are or plan to be pregnant during influenza season should receive the influenza vaccine as soon as possible.\(^3\)\(^-\)\(^4\) Inactivated influenza vaccine is considered safe and effective during any stage of pregnancy, and is proven to benefit both the mother and baby.\(^3\)\(^-\)\(^4\) Live, attenuated influenza vaccine (LAIV) is NOT licensed for use in pregnant women.\(^3\)\(^-\)\(^4\)

The Rhode Island Experience
Rhode Island has collected information on influenza vaccination among pregnant women through CDC’s Pregnancy Risk Assessment Monitoring System (PRAMS). PRAMS data are used to measure progress towards goals in improving the health of mothers and infants, and to identify women and infants at high risk for health problems.\(^9\)

This Issue Brief presents the Rhode Island PRAMS data on the influenza vaccination coverage among pregnant women in relation to the role of the prenatal care provider.

Recommended Actions for Prenatal Care Providers
There are many things that can be done to protect pregnant and postpartum women and infants from this vaccine-preventable disease.

- Educate staff and pregnant women about the importance of influenza vaccination during pregnancy and evidence related to its safety; provide a strong recommendation for vaccination
- Offer vaccination to pregnant women at the earliest opportunity and throughout flu season (October–May)
- Vaccinate postpartum women who were not vaccinated during pregnancy, preferably before hospital discharge or at 6 week postpartum visit
- Know where to refer patients if influenza vaccine is not available in the practice
- Educate staff and postpartum women that breastfeeding is not a contraindication to vaccination
- Vaccinate all healthcare personnel in their practices to prevent healthcare personnel from influenza and from spreading influenza to patients
- Establish an influenza vaccination reminder system in their practices
- Issue standing orders for influenza vaccination of pregnant and postpartum women
- Post influenza prevention announcements and provide brochures to prompt vaccination requests
- Advise family members and other close contacts of pregnant and postpartum women and infants that they should also be vaccinated against influenza
Figure 1 shows that the percentage of women who received influenza vaccination during their pregnancy increased significantly from 22% in 2004 to 74% in 2010. The percentage of women who reported that their healthcare provider recommended or offered influenza vaccine during their pregnancy also significantly increased from 33% in 2004 to 91% in 2010.

Figure 2 demonstrates that healthcare providers play a critical role in the acceptance of influenza vaccine. Pregnant women who were either recommended or offered influenza vaccine by their healthcare providers were 3.7 times more likely to be vaccinated than women who were not recommended or offered the vaccine (78.5% vs. 21.1%).

Figure 3 reveals several reasons why women do not receive influenza vaccination during pregnancy. Vaccine safety concerns and unawareness of the importance of the vaccine during pregnancy were the major reasons for not getting vaccinated. Healthcare providers should educate women about the safety of influenza vaccine, the risk of influenza complications during pregnancy, and the protective effect of influenza vaccination on women and their infants.

References
6. Benowitz I, Esposito DB, Gracey KD, Shapiro ED, Vazquez M. Influenza vaccine given to pregnant women reduces hospitalizations due to influenza in their infants. CID 2010; 51:1355-1361.

For more information about Immunization, visit: www.health.ri.gov/immunization
For more information about Rhode Island Pregnancy Risk Assessment Monitoring System (PRAMS), visit: www.health.ri.gov/prams

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