

# Vaccination Rates Among Insured Pregnant Women in Wisconsin July 2012–March 2015

## Recommendations for vaccination during pregnancy

- **Pertussis:** Since February 2013, pregnant women are recommended to receive tetanus-diphtheria-acellular pertussis (Tdap) vaccine during *every* pregnancy, optimally between 27–36 weeks of gestation. Pertussis vaccination during pregnancy provides passive protection to newborn infants, who are at high risk of severe illness and complications from pertussis.
- **Influenza:** Since 2004, pregnant women are recommended to receive influenza vaccine during any trimester of pregnancy. Influenza vaccination during pregnancy protects both mother and infant from influenza-related illness and hospitalization.

## Summary

- Using health insurance claims data from the Wisconsin Health Information Organization (WHIO), vaccination rates among women with deliveries between July 2012 and March 2015 were evaluated. WHIO data included approximately 60% of all Wisconsin deliveries; 7% of women had two deliveries during the time period. The findings in this report are not generalizable to uninsured women or women insured by organizations that do not provide data to WHIO.
- After the February 2013 recommendation for Tdap vaccination during every pregnancy, the percentage of women vaccinated with Tdap during pregnancy increased to approximately 60%.
- Among women who received Tdap during pregnancy, most received Tdap at the recommended time, 2–13 weeks before delivery.
- Because Tdap vaccine is recommended during every pregnancy, Tdap vaccination rates should be similar among first and second pregnancies. Before December 2014, Tdap vaccination rates were lower among women during their second pregnancies in the time period. Tdap vaccination rates during the second pregnancy were higher among women who had received Tdap during the earlier pregnancy compared with women who had not received Tdap during the earlier pregnancy (68% versus 49%).
- Among women delivering during the 2013–2014 and 2014–2015 influenza seasons, approximately 50% received influenza vaccine during pregnancy.
- Tdap and influenza vaccination rates were lowest among younger women, residents of Milwaukee County, and women insured by Medicaid.

## Resources

CDC. Updated recommendations for use of tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis vaccine (Tdap) in pregnant women—Advisory Committee on Immunization Practices (ACIP), 2012. MMWR 2013;62:131-5. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6207a4.htm>

CDC. Prevention and control of seasonal influenza with vaccines. Recommendations of the Advisory Committee on Immunization Practices—United States, 2013-2014. MMWR 2013;62(RR-07):1-43. <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6207a1.htm>

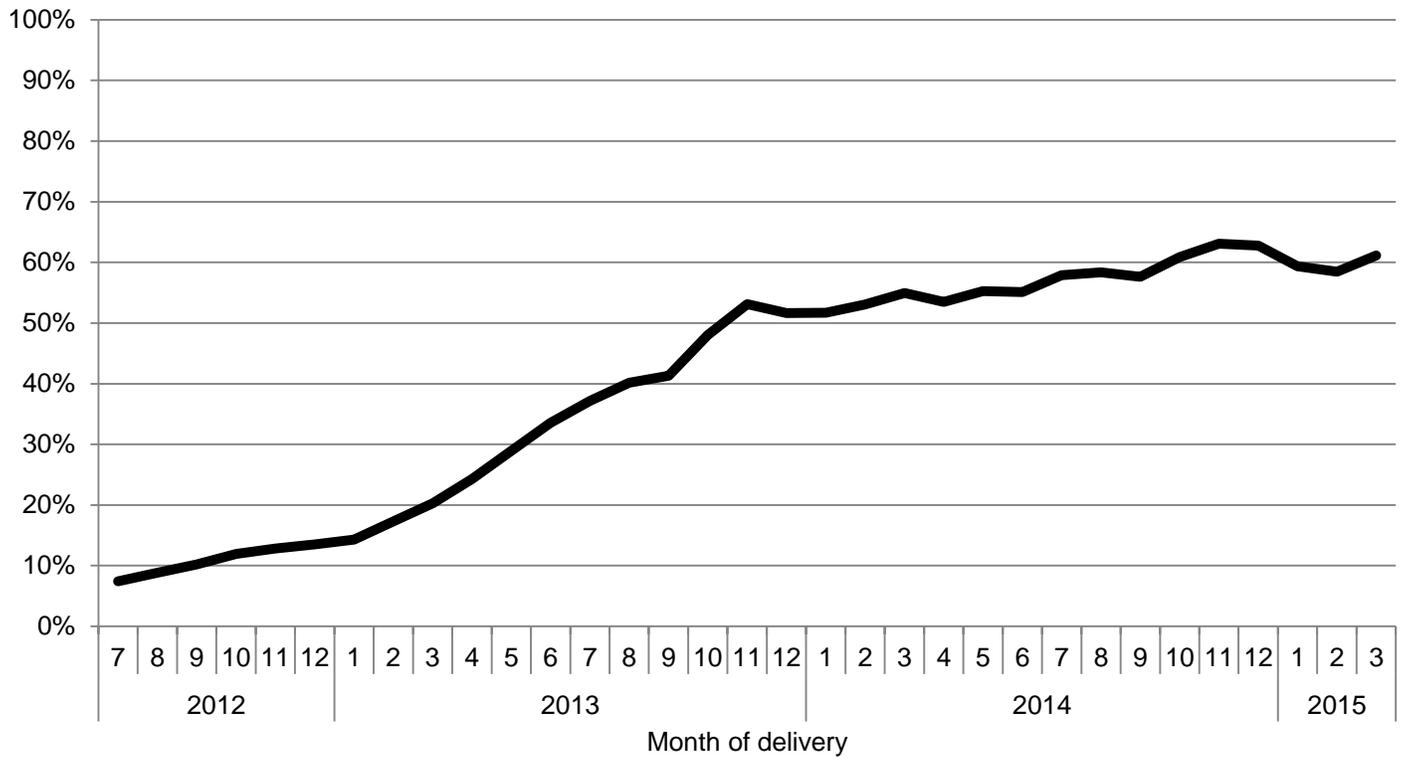
Tdap during pregnancy information for pregnant women and health care professionals  
<http://www.cdc.gov/pertussis/pregnant/index.html>

Educational materials for pregnant women regarding vaccination during pregnancy  
<http://www.cdc.gov/pertussis/materials/pregnant.html>

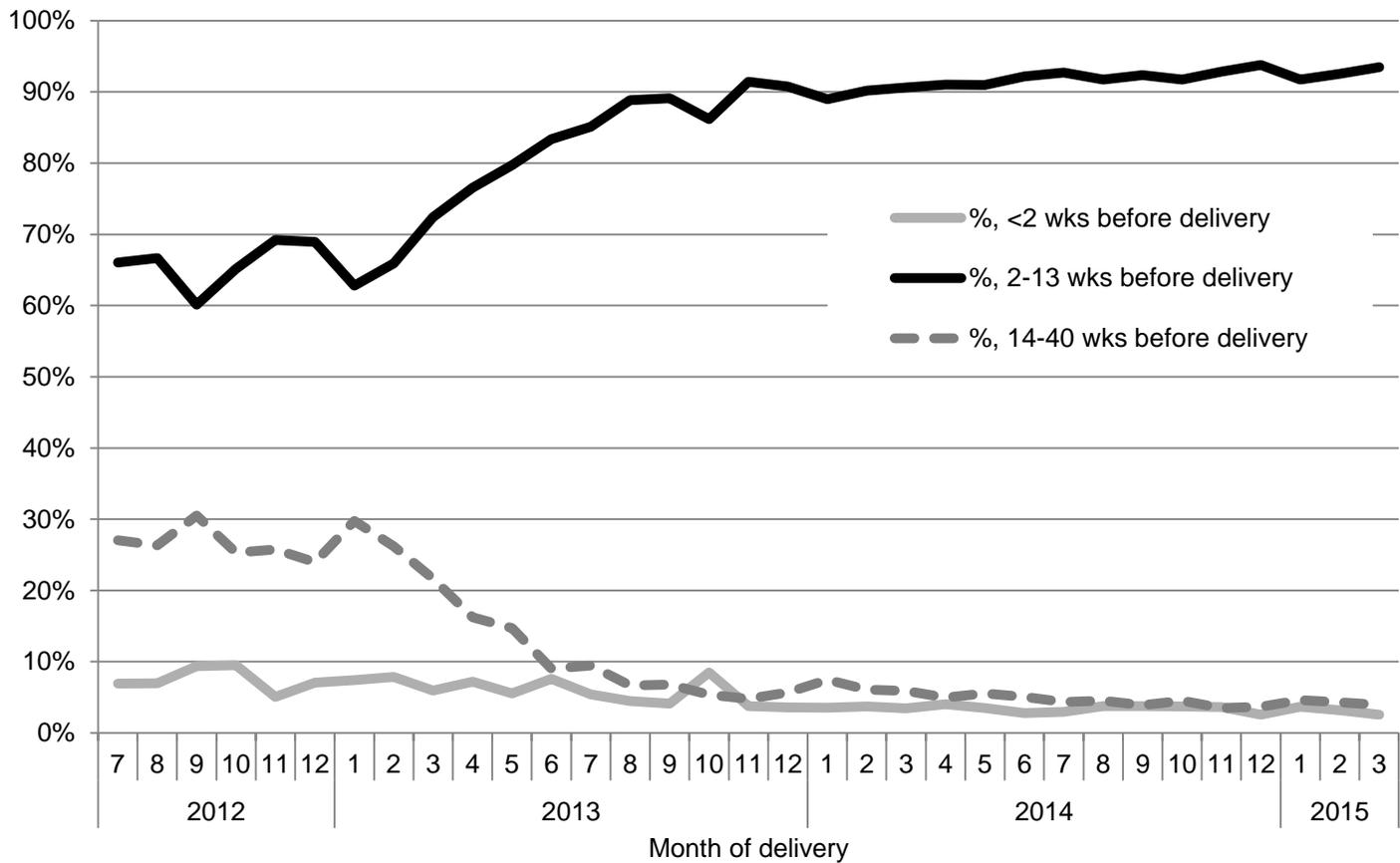
Immunization and pregnancy vaccines flyer  
[http://www.cdc.gov/vaccines/pubs/downloads/f\\_preg.pdf](http://www.cdc.gov/vaccines/pubs/downloads/f_preg.pdf)

Immunization and pregnancy vaccines chart  
[http://www.cdc.gov/vaccines/pubs/downloads/f\\_preg\\_chart.pdf](http://www.cdc.gov/vaccines/pubs/downloads/f_preg_chart.pdf)

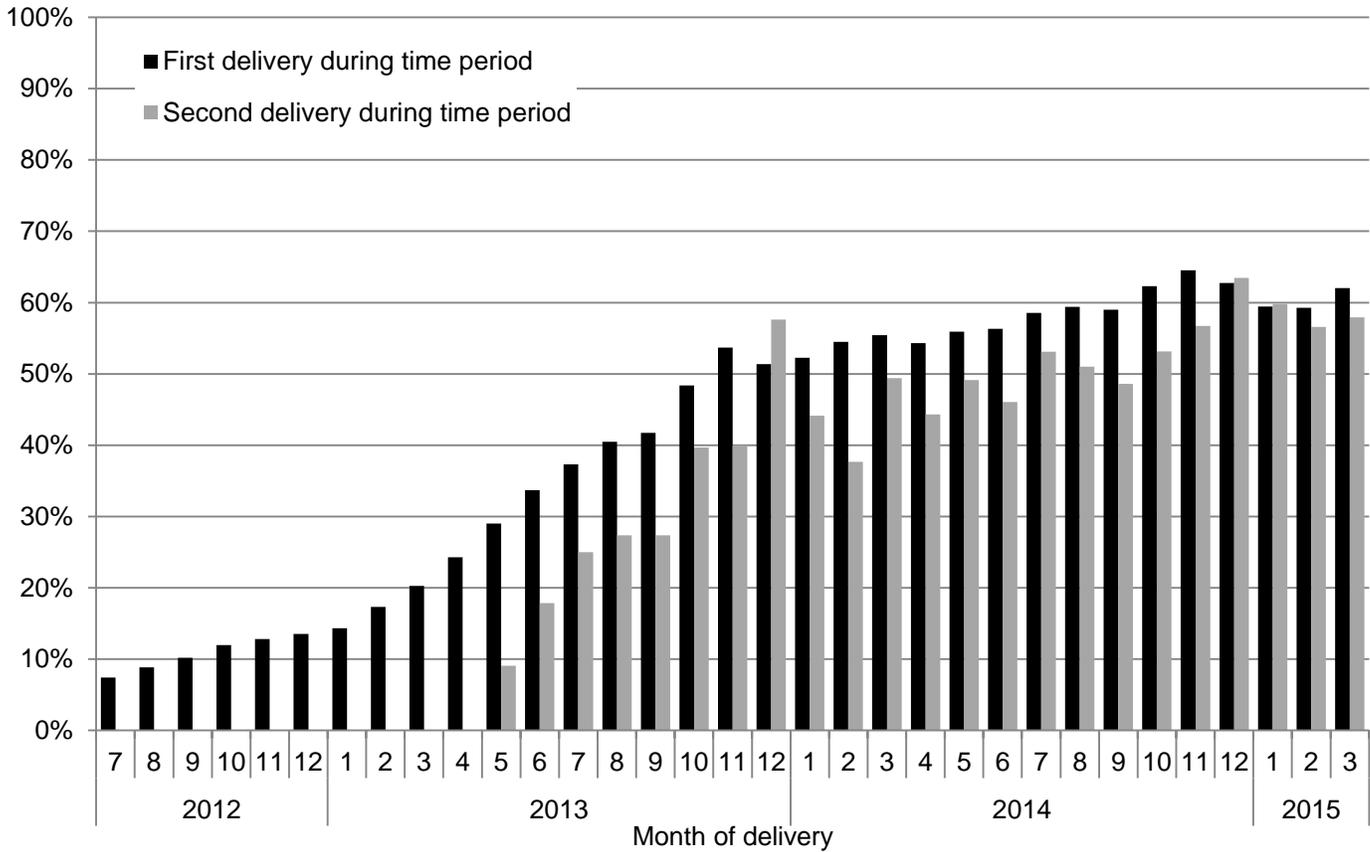
**Percentage of pregnant women who received Tdap vaccine during pregnancy by month of delivery—Wisconsin, July 2012–March 2015**



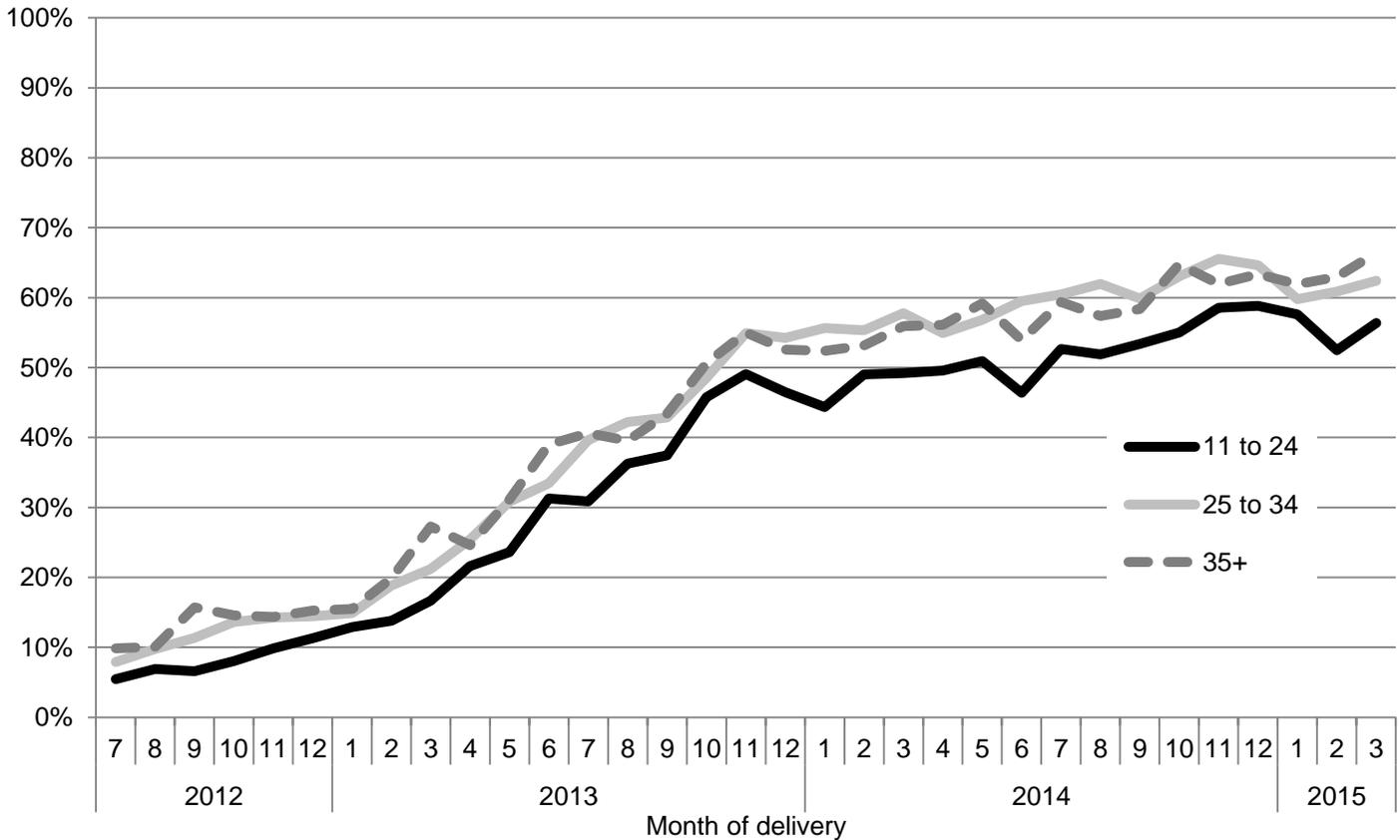
**Timing of Tdap vaccination among women who received Tdap during pregnancy by month of delivery—Wisconsin, July 2012–March 2015**



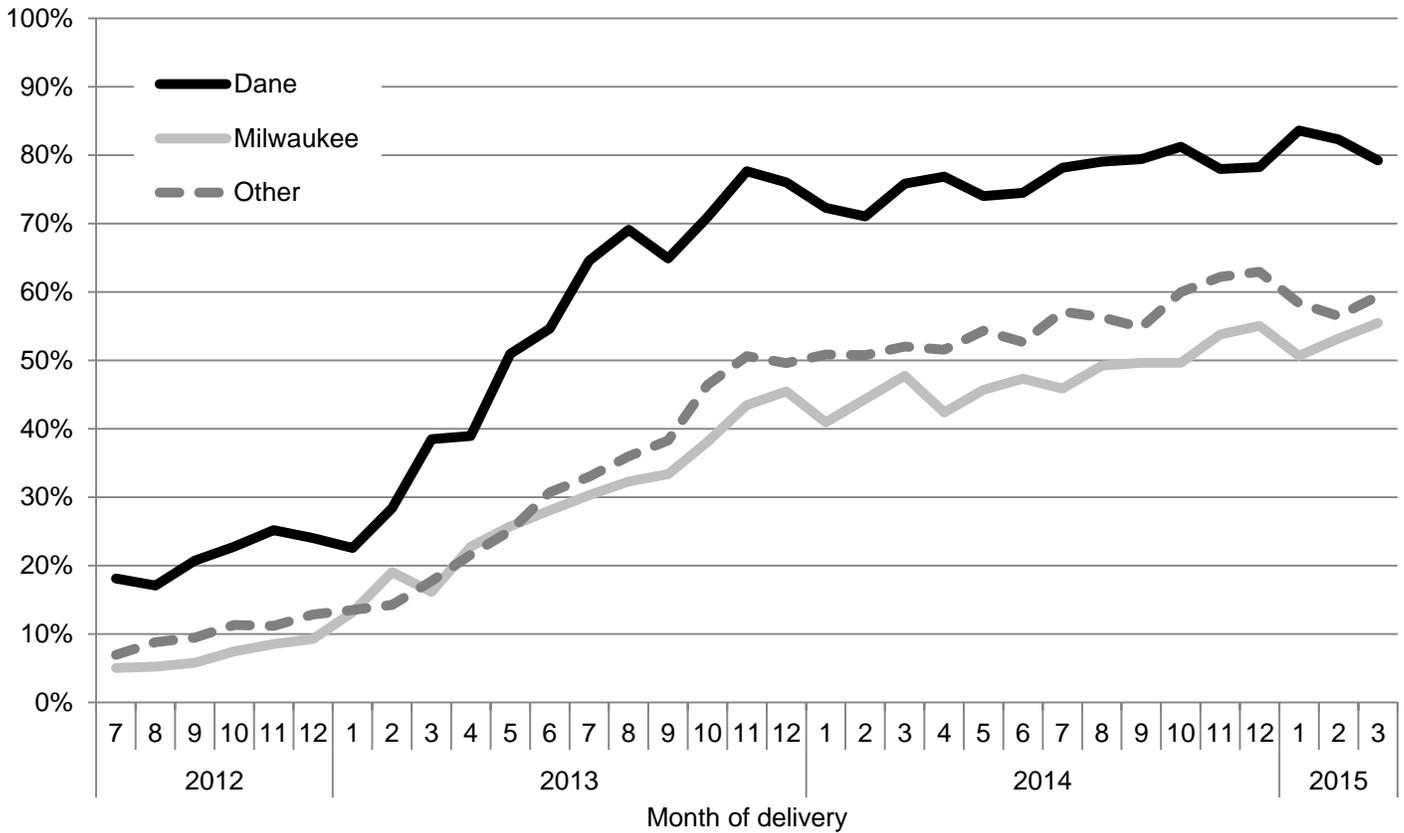
**Percentage of pregnant women who received Tdap vaccine during pregnancy by whether it was the mother's first or second delivery during the time period—Wisconsin, July 2012–March 2015**



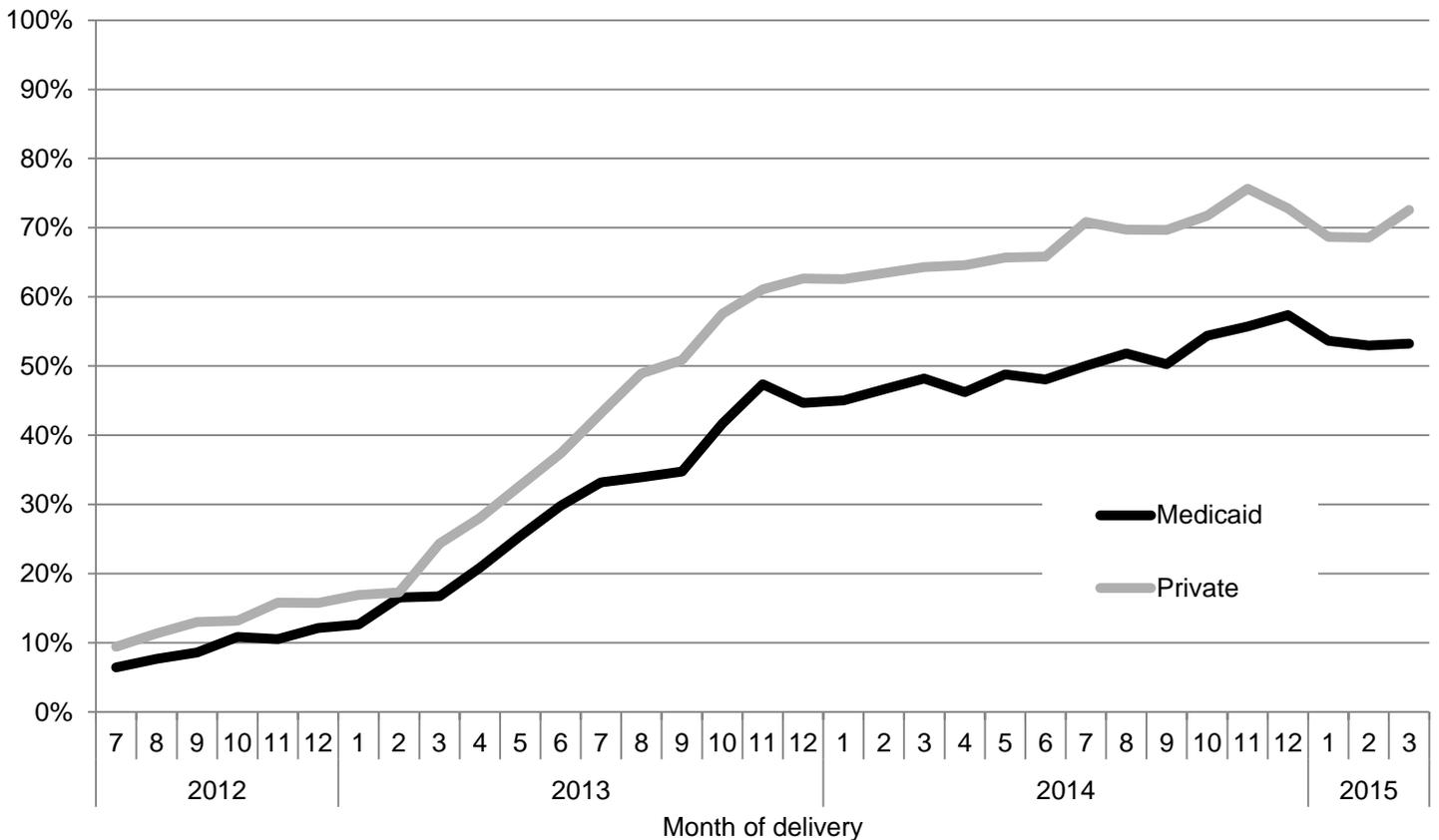
**Percentage of pregnant women who received Tdap vaccine during pregnancy by mother's age at delivery and month of delivery—Wisconsin, July 2012–March 2015**



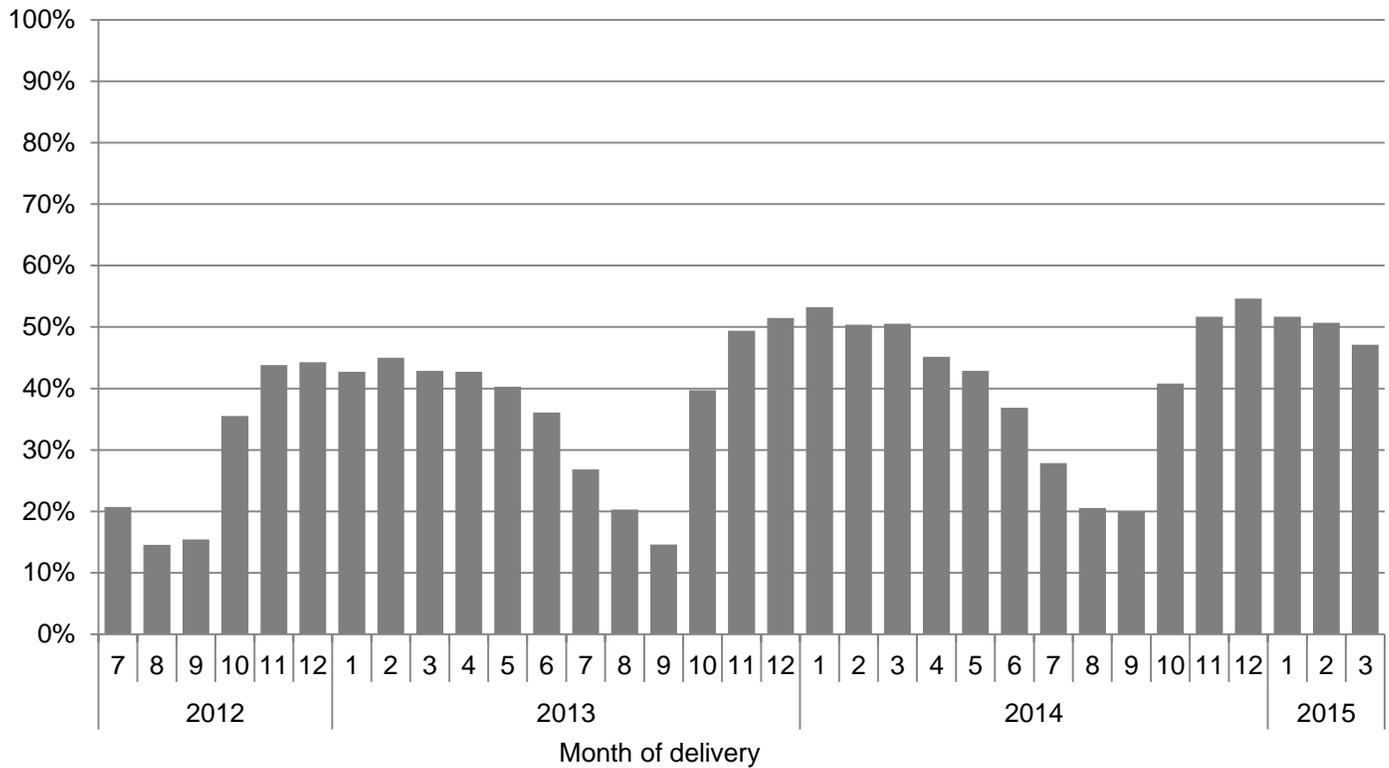
**Percentage of pregnant women who received Tdap vaccine during pregnancy by county of residence and month of delivery—Wisconsin, July 2012–March 2015**



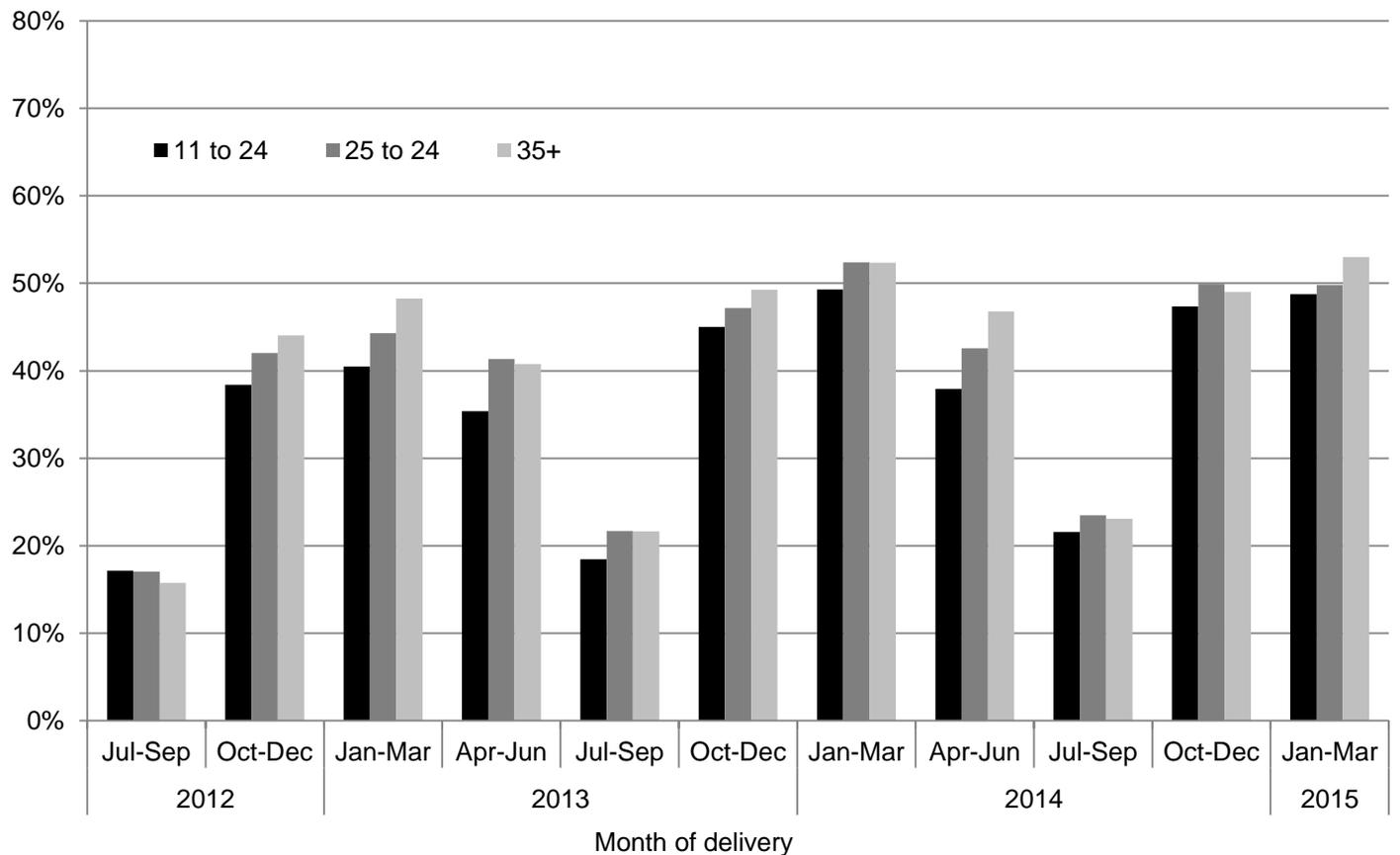
**Percentage of pregnant women who received Tdap vaccine during pregnancy by type of insurance and month of delivery—Wisconsin, July 2012–March 2015**



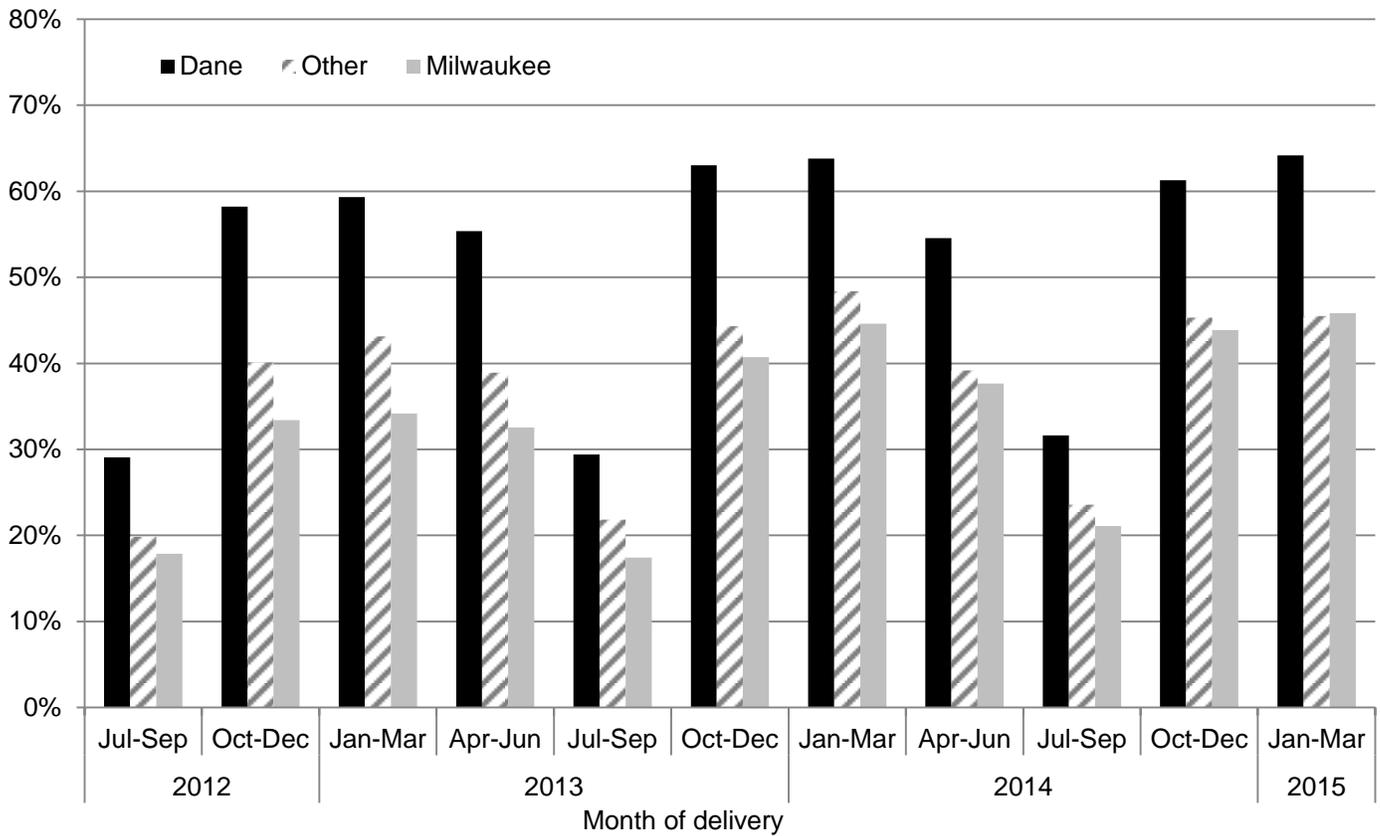
**Percentage of pregnant women who received influenza vaccine during pregnancy by month of delivery—Wisconsin, July 2012–March 2015**



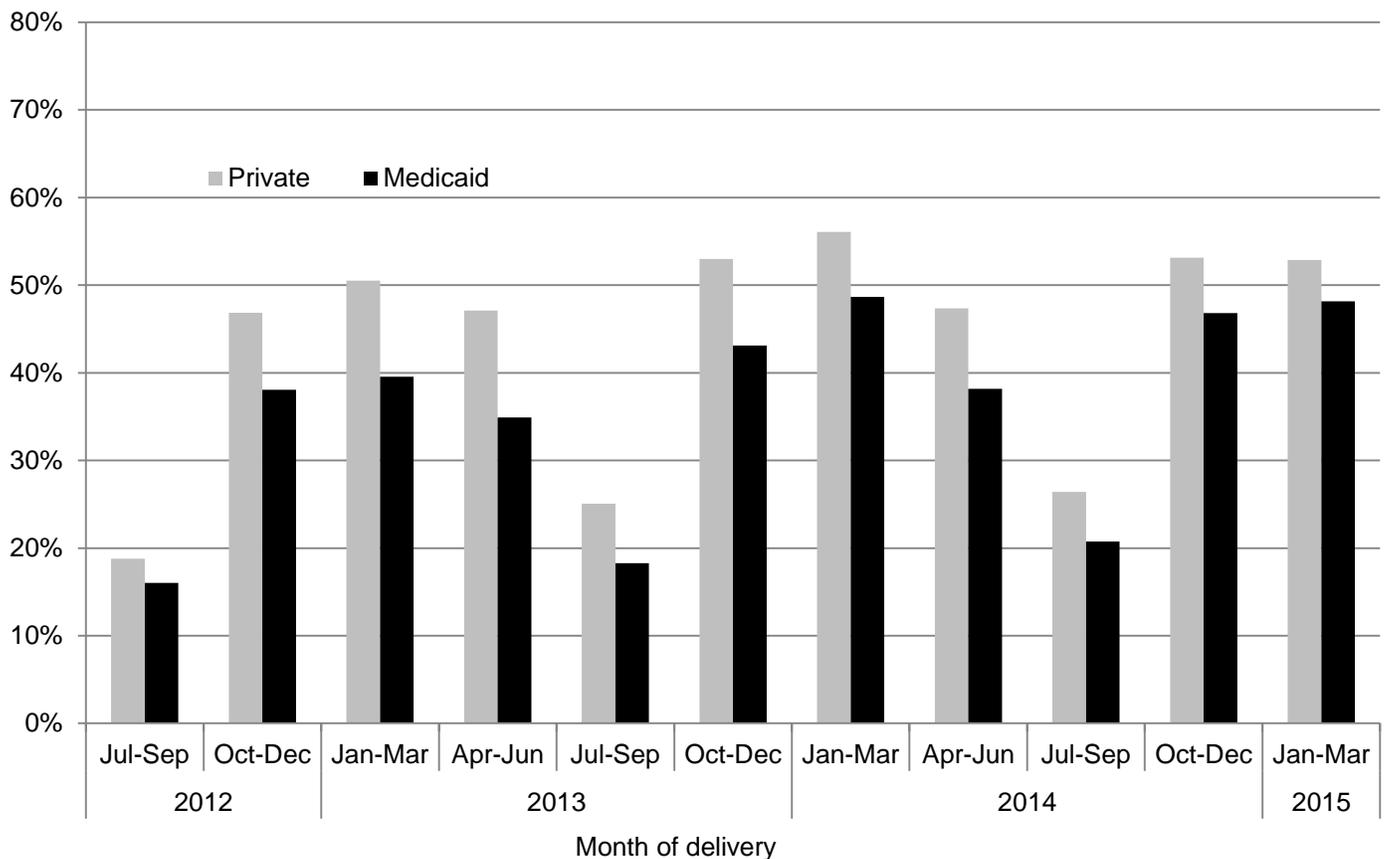
**Percentage of pregnant women who received influenza vaccine during pregnancy by mother's age at delivery and month of delivery—Wisconsin, July 2012–March 2015**



**Percentage of pregnant women who received influenza vaccine during pregnancy by county of residence and month of delivery—Wisconsin, July 2012–March 2015**



**Percentage of pregnant women who received influenza vaccine during pregnancy by type of insurance and month of delivery—Wisconsin, July 2012–March 2015**



## Limitations

- The findings in this report are subject to limitations.
- Only delivery and vaccination claims that were properly coded, paid by the insurer, and submitted to WHIO were included. Therefore, vaccination rates might be underestimated if vaccinations were received but not paid by the insurer. In addition, the findings in this report are not generalizable to uninsured women, women insured by organizations that do not provide data to WHIO, or women outside of Wisconsin.
- Because the WHIO dataset did not include gestational age data, vaccinations received during the 40 weeks before delivery were assumed to have been received during pregnancy. Additionally, the exact week of pregnancy during which Tdap was received could not be evaluated. Instead, timing of Tdap vaccination during pregnancy was evaluated using time between vaccination and delivery.

## References

Centers for Disease Control and Prevention. Updated recommendations for use of tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis vaccine (Tdap) in pregnant women—Advisory Committee on Immunization Practices (ACIP), 2012. MMWR 2013;62:131-5.

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6207a4.htm>

Centers for Disease Control and Prevention. Prevention and control of seasonal influenza with vaccines. Recommendations of the Advisory Committee on Immunization Practices—United States, 2013-2014. MMWR 2013;62(RR-07):1-43. <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6207a1.htm>

Pertussis and influenza vaccination among insured pregnant women—Wisconsin, 2013–2014  
<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6427a4.htm>

Wisconsin Health Information Organization: <http://wisconsinhealthinfo.org/about>



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