Whoop, There It Is:
An Intervention to Improve Whooping Cough Vaccination Rates Among Pregnant Women

Kara Blaisdell, University of Colorado School of Medicine
Kevin Weary, MD, Academy Women’s Healthcare Associates

**Background**

- 10,000 - 50,000 people had whooping cough each year since 2010 in the US.
- In Denver alone, there were 219 reported cases in 2012.
- Half of babies under one year of age require hospitalization for the illness.
- In 2012, 15 infants died from pertussis.
- Infants are most vulnerable to disease complications but are not able to be vaccinated until they are two months old.
- Tdap vaccination in pregnancy results in placental transfer of antibodies from mom to baby.
- The CDC showed that vaccinating women in their third trimester can preclude 78% of whooping cough cases in these first two months.
- Furthermore, one study showed that no infants born to mothers who received their vaccinations required intubation or died as a result of pertussis.

**Intervention**

1. Chart review all of Dr. Weary’s patients that delivered between September and the end of November in 2017 to find Tdap vaccination rate.
2. Design a poster to display in clinic rooms that publicizes, amongst other things, the recommendation for women to receive a Tdap vaccination in every pregnancy between 27-36 weeks.
3. Place these posters in patient’s rooms in December.
4. Compile a list of women who delivered after the first of the year and compare their rates of vaccination to the previous group.

**Results**

**Before**

- 55% vaccinated
- 45% unvaccinated

**After**

- 74% vaccinated
- 26% unvaccinated

This study showed an improvement of vaccination, increasing the relative rate by 35%.

- 26% of women were still unvaccinated, it is unknown if this was due to patient refusal.
- Hopefully with the continued presence of the posters will encourage more women will be vaccinated, in that women can read the posters throughout their pregnancy and choose vaccination later on.
- Future plan is to continue patient empowerment through education.

**Conclusions**

- This study showed an improvement of vaccination, increasing the relative rate by 35%
- 26% of women were still unvaccinated, it is unknown if this was due to patient refusal.
- Hopefully with the continued presence of the posters will encourage more women will be vaccinated, in that women can read the posters throughout their pregnancy and choose vaccination later on.
- Future plan is to continue patient empowerment through education.

**References**

1. Pregnancy and Whooping Cough: For Healthcare Professionals; Center for Disease Control and Prevention; Content Source National Center for Immunization and Respiratory Diseases, Division of Bacterial Diseases. Last Updated June 29, 2017. [https://www.cdc.gov/pertussis/pregnant/index.html](https://www.cdc.gov/pertussis/pregnant/index.html)