

Protecting Infants by Vaccinating Pregnant Women: Development of an Educational Campaign on Tdap Vaccine during Pregnancy

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Presentation Objectives

- **Discuss findings and guiding principles from formative research with pregnant women and obstetrician-gynecologists (ob-gyns)**
- **Discuss campaign materials for pregnant women and healthcare professionals**

Formative Research With Pregnant Women

- **Survey of pregnant women**
 - **Online survey of U.S. women 18–45 years of age**
 - **487 respondents were eligible and completed the survey**
 - **Data were collected in June/July of 2014**
- **Focus groups with pregnant women**
 - **28 focus groups of pregnant women**
 - **High pertussis incidence (San Diego) and low pertussis incidence (Atlanta) locations**
 - **Segmented by parity and language (English and Spanish)**
 - **Mix of trimester, race/ethnicity, and socioeconomic background**
 - **Conducted in two rounds (June and September/October 2014)**

Guiding Principles for Pregnant Women

- **Levels of awareness of pertussis and perceived susceptibility to the disease are low among pregnant women.**
- **Pregnant women are primarily concerned with the health and safety of their baby when making decisions about vaccines during pregnancy.**
- **Pregnant women view their ob-gyn or midwife as the ultimate authority on pregnancy-related topics.**

Awareness of Pertussis and Tdap

- **Pertussis and Tdap knowledge and awareness were low in both English and Spanish-speaking focus groups**
- **Focus group participants wanted a lot of information about both pertussis and the Tdap pregnancy recommendation**
- **60% of survey respondents said they had looked for information on Tdap vaccine**

Health and Safety of Baby

- **Concern over the baby's safety (50%) was the most common reason survey respondents were unsure if they would get Tdap during their current pregnancy**
- **Protecting the baby was the strongest motivator for vaccination among focus group participants**

*“The most valuable thing is that not only will you be immunized but your baby will be **born already immunized** too, until he receives his own vaccine.”*

Health and Safety of Baby

In 2012, there were over 48,000 cases of whooping cough reported in the United States.

Whooping cough is a serious disease that can cause babies to stop breathing.

About half of babies younger than 1 year old who get whooping cough are hospitalized.

Of babies younger than 1 year old who end up in the hospital with whooping cough, about 2 out of 100 of these babies will die.

Most whooping cough deaths are among babies younger than 3 months of age.

4 out of 5 babies who get whooping cough catch it from someone at home.

People can spread whooping cough to babies without even knowing they are sick because the illness can be mild for adults.

Messages that mentioned disease risk for baby were generally more likely to encourage undecided survey participants to accept Tdap vaccination

Healthcare Professional's Influence

- **Survey respondents most often reported seeking Tdap information online (75%), from a healthcare professional (64%), or from friends (45%)**
- **A healthcare professional's recommendation was the most common reason for accepting Tdap (69%) among survey participants**
- **Focus groups preferred "Talk to your doctor" over "get the vaccine" as a call to action for Tdap vaccination**

Formative Research with Ob-Gyns

- **Survey of ob-gyns**
 - **Online survey of 32,056 members of the American College of Obstetricians and Gynecologists (ACOG)**
 - **Respondents all offer prenatal care**
 - **Data were collected in February and March of 2014**
 - **2,365 respondents completed the survey**
- **In-depth interviews with ob-gyns**
 - **60-minute telephone interviews with ob-gyns nationally**
 - **Respondents all offer prenatal care**
 - **Interviews were conducted in May and June of 2014**
 - **24 interviews in May**
 - **16 interviews in June**

Guiding Principles For Ob-Gyns

- **Knowledge of the Tdap recommendation during pregnancy is high, but perception of individual risk for their patients (and their babies) is often low.**
- **Stocking Tdap is a barrier for some ob-gyns , often due to issues with reimbursement.**
- **The most common channels for sharing vaccine information with patients are face-to-face during the office visit and in handouts at the first prenatal appointment.**

Knowledge and Awareness

- Nearly all survey respondents reported recommending Tdap to pregnant patients, with 77% administering the vaccine in their office**

Approach	Frequency (n)	%
I recommend Tdap vaccine to my pregnant patients and vaccinate them in my office.	1,807	77.1%
I recommend Tdap vaccine to my pregnant patients but refer them elsewhere to receive the vaccine.	486	20.7%
I do not routinely discuss Tdap vaccine with my pregnant patients.	35	1.5%
I discuss Tdap vaccine with my pregnant patients but do not offer a recommendation for or against vaccination.	13	0.6%
I recommend against Tdap vaccine for my pregnant patients.	2	0.1%

Information Channels

- **Most respondents (88%) use brochures or handouts to communicate with pregnant patients**
- **Posters, patient websites, and training materials for staff were also listed as useful tools**
- **Respondents turned to ACOG and CDC most often for vaccine information for themselves and their patients**

Born with Protection Against Whooping Cough

A New Maternal Tdap Campaign

- **Developed in collaboration with co-branding partners:**
 - **American Academy of Family Physicians**
 - **American Academy of Pediatrics**
 - **American College of Nurse-Midwives**
 - **American College of Obstetricians and Gynecologists**
- **Targets pregnant women and prenatal healthcare professionals**
- **English and Spanish language materials for women**
- **Based on mixed method formative research and input from subject matter experts and partners**

Campaign Objectives

- **Pregnant women**
 - **Increase awareness of the maternal Tdap recommendation**
 - **Encourage women to speak with their prenatal healthcare professional about Tdap vaccination**
- **Ob-gyns and other prenatal healthcare professionals**
 - **Strengthen recommendations for Tdap during pregnancy among pregnant women**
 - **Strengthen referrals for Tdap among pregnant women**

Pregnancy and Whooping Cough Website

Pregnancy and Whooping Cough

 Recommend  Tweet  Share

For Pregnant Women



Whooping cough (pertussis) is a very contagious disease that can be deadly for babies. It is spread from person to person, usually by coughing or sneezing while in close contact with others. Learn how you can help protect your baby from whooping cough.

- [Get Vaccinated While Pregnant](#)
- [Surround Babies with Protection](#)
- [Vaccinate Your Baby](#)
- [Deadly Disease for Babies](#)
- [Safety & Side Effects](#)
- [Vaccine Effectiveness](#)

For Healthcare Professionals



Pertussis is on the rise and outbreaks are happening across the United States. Learn more about providing the best prenatal care to prevent pertussis by strongly recommending Tdap to your patients during the third trimester of each pregnancy.

- [Vaccinating Pregnant Patients](#)
- [Answering Patient Questions](#)
- [Making a Strong Referral](#)
- [Getting Reimbursed for Tdap Vaccination](#)
- [Rationale: Why Vaccinate Pregnant Women?](#)
- [Vaccine Safety](#)
- [Vaccine Effectiveness](#)

www.cdc.gov/pertussis/pregnant

For Pregnant Women

English Language Campaign



“The whooping cough vaccine I got during my 3rd trimester will help protect my baby starting at her first breath.”

Whooping cough can make your baby very sick with coughing fits and gasping for air. It can even be deadly, and there are outbreaks happening across the United States. When you get the whooping cough vaccine (also called Tdap) during the third trimester of your pregnancy, you'll pass antibodies to your baby that will help protect her from this disease from the time she's born. These antibodies will last for the first few months of her life, when she is most vulnerable to serious disease and complications.

Talk to your doctor or midwife about the whooping cough vaccine.

Born with protection against whooping cough.
www.cdc.gov/whoopingcough

U.S. Department of Health and Human Services
 Centers for Disease Control and Prevention

AMERICAN ACADEMY OF PEDIATRICS
 COMMITTED TO THE HEALTH OF ALL CHILDREN

AMERICAN COLLEGE OF OBSTETRICIANS AND GYNECOLOGISTS
 COMMITTED TO THE HEALTH OF ALL WOMEN



Getting your whooping cough vaccine in your 3rd trimester... helps protect your baby from the start.

Outbreaks of whooping cough are happening across the United States. This disease can cause your baby to have coughing fits, gasp for air, and turn blue from lack of oxygen. It can even be deadly. When you get the whooping cough vaccine (also called Tdap) during your third trimester, you'll pass antibodies to your baby. This will help keep him protected during his first few months of life, when he is most vulnerable to serious disease and complications.

Talk to your doctor or midwife about the whooping cough vaccine.

Born with protection against whooping cough.
www.cdc.gov/whoopingcough

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PDF The whooping cough vaccine I got during my 3rd trimester will help
PDF Getting your whooping cough vaccine in your 3rd trimester

For Pregnant Women

Spanish Language Campaign



Mamá
tú siempre
protegerás a
tu pequeño
milagro.

Empieza
ahora con
tu vacuna
contra la
tosferina.

La tosferina (*whooping cough*) puede enfermar a los bebés y provocarles ataques de tos y dificultad para respirar. Cuando te vacunas contra la tosferina durante el tercer trimestre de embarazo, le transmitirás a tu bebé los anticuerpos que lo protegerán de esta enfermedad desde su nacimiento. Estos anticuerpos durarán hasta que reciba su propia vacuna contra la tosferina, la cual solo se le puede aplicar cuando cumpla 2 meses de edad.

Habla con tu médico o partera sobre la vacuna contra la tosferina (también conocida como la vacuna Tdap).

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Haz que tu bebé nazca protegido contra la tosferina.
www.cdc.gov/espanol/tosferina

 American Academy of Pediatrics
ADVOCATE FOR THE HEALTH OF ALL CHILDREN

 AMERICAN COLLEGE OF OBSTETRICIANS AND GYNECOLOGISTS
FOR WOMEN, BY A DOCTOR

 The American College of Obstetricians and Gynecologists



Vacúnate contra
la tosferina en el
tercer trimestre
de embarazo...

para ayudar a
proteger a tu
bebé desde el
inicio.

La tosferina (*whooping cough*) puede ser mortal para tu bebé. Se propaga cuando una persona que tiene tosferina (tú, tus familiares o amigos) visita a tu bebé y tose, estornuda o pesa mucho tiempo cerca de tu bebé. Este persona puede no saber que tiene tosferina. Vacúnate contra la tosferina durante el tercer trimestre de embarazo para ayudar a tu bebé a mantenerse protegido contra la tosferina cuando es más vulnerable a las complicaciones graves de la enfermedad.

Habla con tu médico o partera sobre la vacuna contra la tosferina (también conocida como la vacuna Tdap).

 U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

Haz que tu bebé nazca protegido contra la tosferina.
www.cdc.gov/espanol/tosferina

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FOR WOMEN, BY A DOCTOR

 The American College of Obstetricians and Gynecologists

[PDF: Mamá tú siempre protegerás a tu pequeño milagro](#)

[PDF: Vacúnate contra la tosferina en el tercer trimestre de embarazo](#)

Puedes empezar a proteger a tu bebé de la tosferina desde antes del nacimiento

Información para las mujeres embarazadas



Quando tú te vacunas contra la tosferina

You can start protecting your baby from whooping cough before birth

Information for pregnant women



When you get the whooping cough vaccine during your 3rd trimester, your baby will be born with protection against whooping cough.

Why do I need to get a whooping cough vaccine while I am pregnant?

The whooping cough vaccine is recommended during your third trimester so that your body can create antibodies and pass them to your baby before birth. These antibodies will help protect your newborn right after birth and until your baby gets his own first whooping cough vaccine at 2 months of age. During the first few months of life, your baby is most vulnerable to serious complications from this disease.

Is this vaccine safe for me and my baby?

Yes. The whooping cough vaccine is very safe for you and your baby. The most common side effects are mild, like redness, swelling or pain where the shot is given in the arm. This should go away within a few days. You cannot get whooping cough from the vaccine. The vaccine does not contain any live bacteria.

Doctors and midwives who specialize in caring for pregnant women agree that the whooping cough vaccine is safe and important to get during the third trimester of each pregnancy. Getting the vaccine during pregnancy does not put you at increased risk for pregnancy complications like low birth weight or preterm delivery.

If I recently got this vaccine, why do I need to get it again?

The amount of antibodies in your body is highest about 2 weeks after getting the vaccine, but then starts to decrease over time. That is why the vaccine is recommended during every pregnancy – so that each of your babies gets the greatest number of protective antibodies from you and the best protection possible against this disease.

Are babies even getting whooping cough anymore in the United States?

Yes. In fact, babies are at greatest risk for getting whooping cough. We used to think of this as a disease of the past, but it's making a comeback. Recently, we saw the most cases we had seen in 60 years. Since 2010, we see between 10,000 and 50,000 cases of whooping cough each year in the United States. Cases, which include people of all ages, are reported in every state.

La tosferina (también conocida como pertussis o whooping cough) es una enfermedad grave que puede ocasionar que los bebés dejen de respirar. Desafortunadamente, los bebés deben haber cumplido 2 meses de edad antes de poder ser vacunados contra la tosferina. Las buenas noticias son que puedes evitar este periodo de desprotección de tu bebé al vacunarte contra la tosferina en tu tercer trimestre, preferiblemente entre las 27 y 36 semanas de embarazo. A la vacuna se la conoce como la Tdap ya que protege contra el tétanos, la difteria y la tosferina. Al recibir la vacuna, le transmitirás los anticuerpos o defensas a tu bebé, de manera que el bebé nacerá protegido contra la tosferina.



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The American College of Obstetricians and Gynecologists
ADVANCING WOMEN'S HEALTH

www.cdc.gov/whoopingcough

Fact Sheet for Pregnant Women

- ❑ Focus on benefit to baby
- ❑ Safety (top concern) is addressed early
- ❑ Information to raise awareness that whooping cough is a concern today
- ❑ Cobranding

[PDF: Puedes empezar a proteger a tu bebé de la tosferina desde antes del nacimiento](#)

[PDF: You can start protecting your baby from whooping cough before birth](#)

Factsheets for Healthcare Professionals

Provide the best prenatal care to prevent pertussis

Strategies for healthcare professionals



Pertussis is on the rise and outbreaks are happening across the United States. In recent years, up to 1,450 infants have been hospitalized and about 10 to 20 have died each year in the United States due to pertussis. Most of these deaths are among infants who are too young to be protected by the childhood pertussis vaccine series that starts when infants are 2 months old.

These first few months of life are when infants are at greatest risk of contracting pertussis and having severe, potentially life-threatening complications from the infection. To help protect babies during this time when they are most vulnerable, women should get the tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis (Tdap) vaccine during each pregnancy. A strong recommendation from you may ultimately be what most influences whether or not your patients' newborns are protected against pertussis.

Strongly recommend Tdap to your patients during the 3rd trimester of each pregnancy.

5 Facts about Tdap and Pregnancy

1. Tdap during pregnancy provides the best protection for mother and infant.

- Recommend and administer or refer your patients to receive Tdap during every pregnancy.
- Optimal timing is between 27 and 36 weeks gestation to maximize the maternal antibody response and passive antibody transfer to the infant.
- Fewer babies will be hospitalized for and die from pertussis when Tdap is given during pregnancy rather than during the postpartum period.

2. Postpartum Tdap administration is NOT optimal.

- Postpartum Tdap administration does not provide immunity to the infant, who is most vulnerable to the disease's serious complications.
- Infants remain at risk of contracting pertussis from others, including siblings, grandparents, and other caregivers.
- It takes about 2 weeks after Tdap receipt for the mother to have protection against pertussis, which means the mother is still at risk for catching and spreading the disease to her newborn during this time.

3. Cocooning alone may not be effective and is hard to implement.

- The term "cocooning" means vaccinating anyone who comes in close contact with an infant.
- It is difficult and can be costly to make sure that everyone who is around an infant is vaccinated.

4. Tdap should NOT be offered as part of routine preconception care.

- Protection from pertussis vaccines does not last as long as vaccine experts would like, so Tdap is recommended during pregnancy in order to provide optimal protection to the infant.
- If Tdap is administered at a preconception visit, it should be administered again during pregnancy between 27 and 36 weeks gestation.

5. Tdap can be safely administered earlier in pregnancy if needed.

- Pregnant women should receive Tdap anytime during pregnancy if it is indicated for wound care or during a community pertussis outbreak.
- If Tdap is administered earlier in pregnancy, it should not be repeated between 27 and 36 weeks gestation; only one dose is recommended during each pregnancy.

Making a strong vaccine referral to pregnant women

Strategies for healthcare professionals



Making the Referral

Begin each referral with a vaccine recommendation that includes information on why the vaccine is beneficial and safe for mother and baby. Tailoring your message with scientific data or personal anecdotes may help convey the vaccine's importance to individual patients.

Provide information on where patients can get the vaccine(s) you recommend. For help locating vaccines in your area, the HealthMap Vaccine Finder is available at: <http://vaccine.healthmap.org>.

Always write a patient-specific prescription. This will help your patients obtain the vaccine at another location where a prescription may be required.

Anticipate questions on why patients cannot get vaccinated in your office. For example, if you stock flu vaccine, but not Tdap, be prepared to explain why you offer one vaccine but not the other.

Re-emphasize vaccine importance. Remember to emphasize the fact that just because you do not stock a specific vaccine in your office does not mean it is not important, is less important than other vaccines you do stock, or that you have concerns about its safety.

Have a plan in place to answer questions from other immunization providers who are concerned with vaccinating your pregnant patients. Questions should be answered promptly, as it is likely your patient is with them at the time they contact you.

Stocking and administering vaccines in your office may not be feasible for all prenatal healthcare professionals, often due to issues with reimbursement. By making a strong vaccine referral, you can help ensure that your pregnant patients receive the recommended influenza (flu) and tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis (Tdap) vaccines even if you are unable to administer them in your office. The strategies outlined are based on research with healthcare professionals and pregnant women. The goal is to strengthen vaccine referrals to increase the likelihood of patient follow through.

Vaccines Routinely Recommended for Pregnant Women

It is safe for the flu vaccine and Tdap vaccine to be given to pregnant patients at the same time.

Flu Vaccine

- Is recommended for pregnant women and safe to administer during any trimester.
- Is the best way to protect pregnant women and their babies from the flu, and prevent possible flu-associated pregnancy complications.
- Is safe and can help protect the baby from flu for up to 6 months after birth. This is important because babies younger than 6 months of age are too young to get a flu vaccine.

Tdap Vaccine

- Is recommended during every pregnancy, ideally between 27 and 36 weeks gestation.
- When given during pregnancy, boosts antibodies in the mother, which are transplacentally transferred to her unborn baby. Third trimester administration optimizes neonatal antibody levels.
- Helps protect infants, who are at greatest risk for developing pertussis and its life-threatening complications, until they are old enough to start the childhood pertussis vaccine series.

[PDF: Provide the best prenatal care to prevent pertussis](#)

[PDF: Making a strong vaccine referral to pregnant women](#)

Distribution Plans

- **Materials are available for free:**
 - www.cdc.gov/pertussis/pregnant
- **Promote awareness of campaign among hcps, partners, immunization programs, and immunization coalitions**
- **Annual observations:**
 - National Infant Immunization Week
 - National Immunization Awareness Month
- **Digital buy targeting pregnant women**



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Next Steps

- **Continue to promote awareness of campaign materials and messages**
- **Analyze additional research**
 - **Survey with nurses, nurse practitioners, and nurse-midwives**
- **Publish research to practice efforts**
- **Evaluation of campaign reach**

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The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.