Challenges and Solutions to Improving Tdap Vaccination of Pregnant Women: A New Campaign to Promote 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
BACKGROUND

Pertussis (Whooping Cough) and Infants

- Pertussis is a contagious respiratory disease characterized by a severe cough that can last for weeks or months
- Young infants are at greatest risk for getting pertussis and suffering from life-threatening complications
- DTaP vaccine is recommended at 2, 4, 6, 15-18 months, and 4-6 years to prevent pertussis and reduce the severity of symptoms

* Source: cdc.gov/pertussis
Pertussis Trends

- Despite high DTaP coverage, more than 28,000 U.S. cases reported in 2014, including 7 deaths among infants less than 3 mo old
  - Multiple factors are contributing to the pertussis resurgence
- Current efforts focused on
  - protecting infants by vaccinating pregnant women; and
  - routine childhood and adolescent pertussis vaccine recommendations

*2014 data are provisional and subject to change.
Source: CDC, National Notifiable Diseases Surveillance System and Supplemental Pertussis Surveillance System

Tdap Vaccine During Pregnancy

- In 2012, Tdap administration was recommended during pregnancy to help protect babies until they start the DTaP series
  - Ideal administration between 27 and 36 weeks gestation for best maternal antibody response and transfer of immunity to baby
  - Recommended during each pregnancy regardless of Tdap vaccination history or pregnancy spacing
- Uptake of Tdap during pregnancy, while increasing since the 2012 recommendation, is still low

* Source: cdc.gov/pertussis
FORMATIVE RESEARCH

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

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

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

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

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

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

Preliminary
Barriers to Stocking Tdap

- Concerns over reimbursement were a barrier to stocking vaccine for some interviewees.
- Most physicians interviewed who recommended but didn’t stock Tdap did not follow-up with patients later.
- Despite barriers, most interviewees felt that the obstetric provider was responsible for vaccinating pregnant women.

“I’ve got those patients, you know, on a regular basis. They’re coming back every month, every couple of weeks whenever it is… so, I think since the obstetrician has certainly more opportunity and access to the patient that that’s probably the best place to do it.”

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.
RESEARCH TO PRACTICE

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

For Pregnant Women

English Language Campaign
For Pregnant Women
Spanish Language Campaign

Mamá siempre protegerá a tu pequeño milagro.
Empieza ahora con tu vacuna contra la tosferina.

La tosferina (Pfizer Vigimav) puede enfermar a los bebés y personas cercanas al nacimiento de las madres que no tienen esta enfermedad. La inmunización a la tosferina no protege a su niño del virus de la tosferina. La tosferina puede ser mortífera para los bebés y puede afectar su desarrollo. La inmunización a la tosferina se administra a las mujeres durante el embarazo porque es seguro para los bebés incluso a lo largo del tiempo de gestación para proteger a los bebés.

Habla con tu médico o partenaire sobre la vacuna contra la tosferina. (también conocida como la vacuna DPT y Tdap, en inglés).

Factsheets for Healthcare Professionals (1)

Provide the best prenatal care to prevent pertussis

1. Tdap during pregnancy provides the best protection for mother and infant.
2. Tdap during pregnancy is safe and recommended by the American Academy of Pediatrics and the American College of Obstetricians and Gynecologists.
3. Tdap during pregnancy is recommended by the Advisory Committee on Immunization Practices (ACIP) for all pregnant women.
4. Tdap should not be deferred due to prior history of neonatal tetanus.
5. Tdap can be safely administered to breastfeeding infants.

Resources about Tdap and Pregnancy for Healthcare Professionals

Get Information on Tdap Vaccinations

Get Information on Tdap Vaccinations

• 1-800-CDC-INFO (1-800-232-4636)
• www.cdc.gov/tetanus

Get Vaccine-Behind Tips

For all citizens who receive Tdap vaccines:

• CDC.gov/vaccines

Read the Career Recommendations

American Academy of Pediatrics
American College of Obstetricians and Gynecologists
American Academy of Child and Adolescent Psychiatry
American Academy of Family Physicians
American Academy of Nursing
American Public Health Association
American Society for Microbiology
American Society of Health-System Pharmacists
American Academy of Family Physicians
American Academy of Pediatrics
American Academy of Nursing
American Public Health Association
American Society for Microbiology
American Society of Health-System Pharmacists

www.cdc.gov/vaccines/professional/career.html
Factsheets for Healthcare Professionals (2)

Making a strong vaccine referral to 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

Vaccines 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
Fact Sheet for Pregnant Women (2)

Mom, only you can provide your newborn baby with the best protection possible against whooping cough.

You may have heard that your baby’s father, grandparents, and others who will be in contact will need to get their whooping cough vaccine as well. This strategy of surrounding babies against whooping cough is called “cocooning.” However, cocooning might not be enough whooping cough illness and death. This is because cocooning does not provide any direct (antibodies) to your baby, and it can be difficult to make sure everyone who is around your baby was vaccinated against whooping cough. Since cocooning does not completely protect babies from whooping cough, it is even more important that you get the vaccine while you are pregnant.

- Call-out box on cocooning
- True story (Spanish-language only)
- Links for more information
- Call to action

Pregnancy and Whooping Cough Website

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 when in close contact with others. Learn how you can help protect your baby from whooping cough.

- Get Vaccinated While Pregnant
- Survived Babies with Pertussis
- Vaccines Your Baby
- Deadly Disease for Babies
- Safety & Side Effects
- Vaccine Effectiveness

Pertussis is on the rise and outbreaks are happening across the United States. Learn more about providing the best care to your pregnant patients. FDA is 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
- Reasons: Why Vaccinate Pregnant Women?
- Vaccine Safety
- Vaccine Effectiveness

www.cdc.gov/pertussis/pregnant
Distribution Plans

- Materials are available for free download:
  - [www.cdc.gov/pertussis/pregnant](http://www.cdc.gov/pertussis/pregnant)
- Limited quantities available for free from CDC warehouse (Summer 2015)
- Promote awareness of campaign among healthcare professionals, partners, immunization programs, and immunization coalitions
- Annual observations:
  - National Immunization Awareness Month (August 2015)
- Digital buy targeting pregnant women, Summer 2015

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
  - Web metrics
  - Re-fielding of ob-gyn and pregnant women's surveys
What We Are Asking Partners To Do

- **GIVE STRONG RECOMMENDATIONS** for whooping cough vaccine (Tdap) in the 3rd trimester of each pregnancy
- **ASK HEALTHCARE PROFESSIONALS** to include *Born with Protection* campaign materials in prenatal information packets
  
- **ENCOURAGE** pregnant women to ask their doctor or midwife about whooping cough vaccine
- **PROMOTE** CDC’s Tdap during pregnancy website and materials through your social media channels
  
  [www.cdc.gov/pertussis/pregnant](http://www.cdc.gov/pertussis/pregnant)

More Ways to Get Involved!

- **ALERT** prenatal healthcare professionals that whooping cough outbreaks are happening across the U.S.
- **RAISE AWARENESS** among prenatal healthcare professionals that:
  - 3rd trimester vaccination every pregnancy offers the best protection for baby
  - Postpartum Tdap administration is NOT optimal
  - Cocooning alone may not be effective and is hard to implement
- **DIRECT** pregnant women to CDC information about Tdap during pregnancy
  
  [www.cdc.gov/pertussis/pregnant](http://www.cdc.gov/pertussis/pregnant)
- **COLLABORATE** with us to expand the campaign’s reach
  
  Jenny Mullen: jjk7@cdc.gov
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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.