

Centers for Disease Control and Prevention
National Center for Immunization and Respiratory Diseases



Communicating Vaccination Recommendations for Pregnant People

Lessons Learned from Qualitative Research with Pregnant People and Prenatal Healthcare Professionals

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Methods

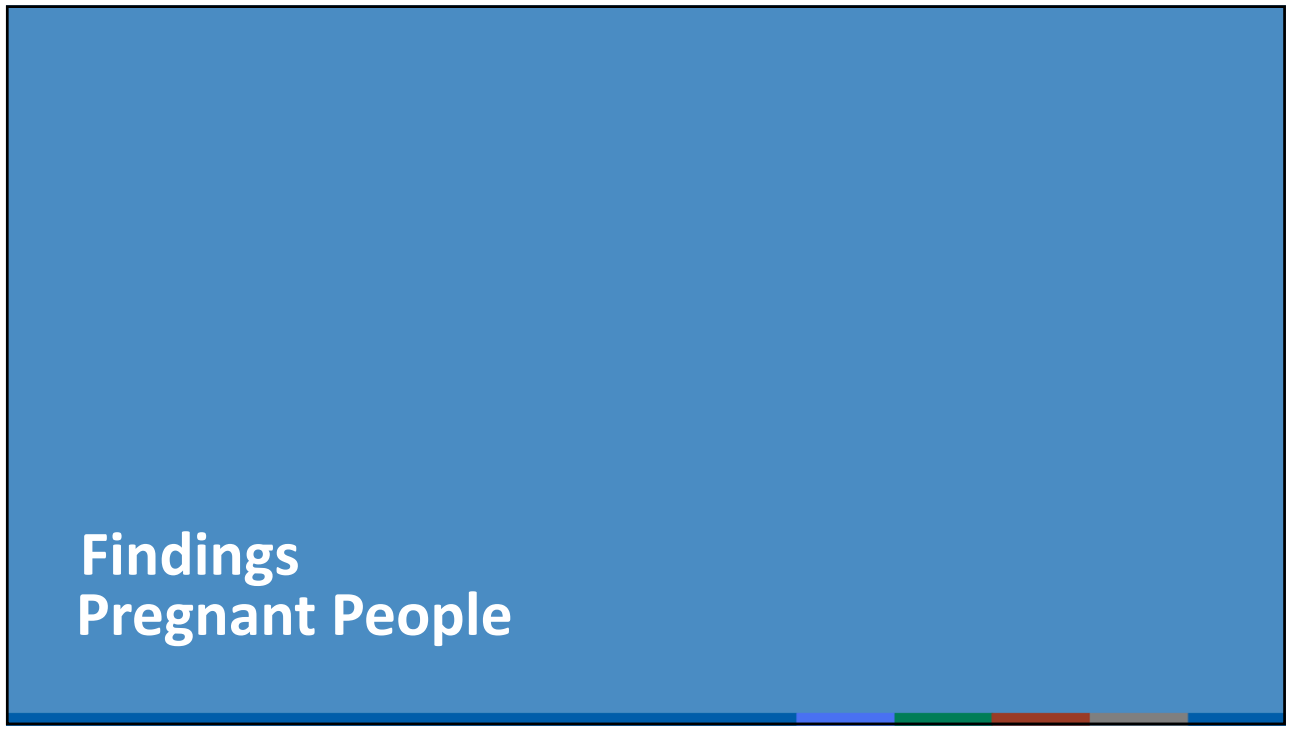
Methods Overview

Understand factors influencing uptake of Tdap, flu, and COVID-19 vaccines during pregnancy.

Focus Groups with Pregnant People	In-depth Interviews with Prenatal Healthcare Providers	In-depth Interviews with Pregnant People
12 virtual focus groups (February 21 - March 2, 2023)	12 virtual in-depth interviews (February 14 - March 27, 2023)	24 virtual in-depth interviews (February 6 – 24, 2023) <i>* Existing materials testing</i>

Consumer Focus Group Segmentation:

- General population (mix of races/ethnicities) and pregnant
 - First pregnancy
 - 2nd+ pregnancy
- Black/African American and pregnant
 - First pregnancy
 - 2nd+ pregnancy



Findings
Pregnant People

Prenatal Care

Pregnant participants in focus groups placed high value on *active listening* and *being treated with respect*, which led to increased trust in their HCP and confidence in their prenatal care.

- **Positive Experiences:**

- Reported feeling listened to, being kept informed/involved, and having HCPs who answered questions
- Emphasized importance of kind and understanding demeanor of HCP to build trust and comfort

- **Notable Differences:**

- Black/AA participants commonly expressed concerns about not being listened to or having their voices ignored by their doctors, frequently noting they sought care from doulas and midwives to supplement mainstream medical practices and ensure they had an advocate to help meet their healthcare needs.

Vaccination was not reported as a top-of-mind pregnancy concern in any group.

- Other serious pregnancy concerns (e.g., preeclampsia, gestational diabetes, general individual health and the baby's development) superseded vaccines.

- **Notable Differences:**

- 2nd+ pregnancy participants indicated they tend to repeat healthcare choices they made during their previous pregnancies, including vaccination decisions.

Trusted Sources of Information

Focus group participants cited their HCP as the *most trusted source for health information*, but they also frequently reported consulting additional trusted sources via personal networks and online when making health related decisions during pregnancy, including vaccination.

- **Online Searches:**

- Reported searching for specific topics and often cross referencing them with other trusted sources (e.g., ACOG, CDC) to get multiple perspectives
- Indicated that if questions remained, they often brought them to their prenatal care provider

- **Communities (e.g., pregnancy apps):**

- Reported that searching and connecting with others who have experienced similar symptoms gave comfort, especially among Black/AA participants and those going through their first pregnancy

- **Notable Differences – Black/AA:**

- Frequently reported seeking out Black physicians, midwives, or doulas for prenatal care, noting they feel these providers were more able to relate to their experiences and advocate for them
- Were more likely to cite friends and family as one of their first stops for information
- Often mentioned self-educating about pregnancy online as a method of preventing illness during their pregnancy

Tdap Vaccine

Focus group participants indicated they view Tdap as an important "pregnancy vaccine" that most said they will get.

- Many felt Tdap vaccination is highly effective and important to protect newborns against whooping cough.
- They indicated they see it as familiar and safe, evincing little concern for potential side effects.

Participants reported their prenatal HCPs nearly always discussed Tdap vaccination with them, often during the third trimester.

- Most reported their HCPs include Tdap vaccine in their educational materials and have recommended it to them.
- They often noted Tdap vaccine wasn't discussed until the third trimester, when it is recommended to be administered.
 - Therefore, some participants were not aware of its significance, or thought it is only needed if you haven't been previously vaccinated as an adult/during a previous pregnancy, until their HCP raises the topic.
- Some reported being told that others in their household should receive Tdap vaccine as well to protect the baby, reinforcing to them the importance of the vaccine.

Flu Vaccine

Flu vaccination during pregnancy was often seen as low value and non-essential among participants.

- They often noted perceptions that flu vaccines have low effectiveness and may cause people to either feel sick due to side effects or cause an actual flu infection, leading to some questions of safety during pregnancy.
- Many indicated they do not perceive flu as a serious illness, even while pregnant.
 - They felt the benefits of the vaccine are outweighed by the perceived risks of the vaccination itself
 - Some, especially those in the Black/AA groups, were likely to report believing there are other ways to protect oneself against flu, including natural immunity

Participants often reported their general perspective on flu vaccination—whether positive or negative—remained unchanged or was reinforced by their pregnancy and wanting to remain healthy.

- Many perceived their HCPs provided a weak recommendation, often only asking if they are interested, without additional information or discussion.
- They shared that they see flu vaccination as primarily protective of their own health, and felt the vaccine's protective benefit to the baby is rarely communicated by HCPs.

Testing of Statements and Language

Focus group participants provided feedback on 4 short messages related to vaccination during pregnancy.

- Language
- Clarity
- Whether or not they found the message motivated them to take action

The most popular tested messages for prenatal vaccination focused on how vaccines protect the baby.

- A call to action to speak to a trusted HCP was seen as a clear step participants could take that also respected the journey each person is on.

When testing “Pregnant People” vs. “Pregnant Women”:

- Most were indifferent
- Some felt that “people” language was disrespectful
- Generally observed tolerance for use of “pregnant people”

Pregnant People Interviews: Recommendations from Existing Materials Testing

LANGUAGE

- Conversational tone makes materials approachable
- Avoid gendered pronouns for babies
- Be mindful of implied judgments of not taking recommended action
- Walk the line of attention-grabbing vs. perceived scare tactics (e.g., “hospitalization”, “deadly”, “critical”)

FORMAT

- Broad appreciation of Q & A format
- Ensure materials are not too long (2 pages maximum)
- Provide links with additional information on safety, risk factors, immunization schedules
- Make resources easily sharable via text and social media

VISUALS

- Use diverse images that include postpartum pregnant people, single pregnant people, couples, and different stages of pregnancy
- Use of color draws attention
- Some dislike of illustrations as opposed to real life images
- Logos can increase credibility

CONTENT

- Address severity, transmission, symptoms of the illness
- Include information regarding when to receive vaccines
- Topics of interest: breastfeeding antibody benefits, fertility concerns, safety of the vaccine for baby
- Include information about why vaccination is recommended, not solely relying on directives

Pregnant People: Communications Recommendations

- Seek to elevate the urgency and importance of prenatal vaccinations, while acknowledging that pregnant people may have higher priority health concerns
- Account for a level of mistrust in vaccines and negative experiences with healthcare; exploring trusted messengers, including non-physician HCPs (e.g., midwives, doulas), and those with similar racial and/or ethnic background to the target audience, will likely help messages resonate
- Leverage a variety of touchpoints and messengers to meet participants where they are
- Use materials that have been pretested with intended audiences
- Take into account differing awareness and receptivity of specific vaccines; emphasize protections passed onto babies and pregnant people's elevated risks to certain diseases and complications
- Acknowledge and account for the distinct beliefs, barriers, and motivators of pregnant people around specific vaccines; for example, Tdap is generally more widely accepted than flu vaccines

Findings
Health Care Providers

Patient Vaccination* During Pregnancy Resources

Participating HCPs reported communicating supplementary information via physical handouts and websites to patients, highlighting pertinent information and expecting them to review it between appointments.

- Handouts often included information from organizations like ACOG and CDC
- Other reported sources shared with patients:
 - Evidence Based Birth
 - Up To Date
 - American College of Nurse Midwives (ACNM)
- Many cited that their patients will frequently conduct their own research online or by talking with family and friends before discussions during their prenatal appointments
- Reported main barriers to effectiveness of educational materials were language barriers and low health literacy
- Participants believed providing patients with reputable brief video content would aid provider conversations about prenatal vaccinations

* Tdap, flu, and COVID-19 vaccines

Tdap Vaccine

Participating HCPs shared their patients think of Tdap as the "pregnancy vaccine"; they consistently strongly recommend it and their patients readily accept.

- Found patients believe in Tdap's effectiveness and come with limited safety concerns or misinformation
- Noted some patients need to be informed that Tdap vaccine is recommended with each pregnancy
- All indicated they emphasize the Tdap vaccine provides protection for both the pregnant patient and unborn baby, and that whooping cough poses a serious health threat to their patients and infants
- Often discussed during third trimester, second trimester at earliest, a few weeks before the recommended receipt
- **Discussions tend to span beyond one appointment so patients have time to read the HCP-provided materials and raise questions they may have**

Flu Vaccine

Participating HCPs reported the flu vaccine is met with more resistance and patients doubt its necessity and effectiveness.

- All indicated they recommend the flu vaccine to their patients, but tend to only describe protection and benefits for the pregnant person in relation to pregnancy as an immunocompromised state
- Many shared they find patients have more misconceptions and are more resistant to flu than with Tdap vaccine
 - Participants found patients who are resistant often believe flu vaccine is ineffective and often draw upon previous poor experiences (when not pregnant), particularly side effects.
- Participants reported recommendations are seasonal, often initiated at the start of flu season for all patient types

COVID-19 Vaccine

Participants reported experiencing the most resistance to the COVID-19 vaccine* due to fear of risks for the pregnancy and unknown long-term effects.

- Participants reported discussing COVID-19 vaccines more in terms of protecting the pregnant person rather than passing protection to baby
- Many reported some patients worry the vaccine will cause COVID-19
- Participants noted the decision to get or to not get the COVID-19 vaccine is more politicized than the other vaccines

Communications Recommendations

- Prioritize HCP outreach, given participants reported high vaccination rates among their patient populations, but focus group findings and vaccination uptake data indicated gaps
 - May also need to target non-physician HCPs (e.g., midwives, doulas)
- Seek to elevate prenatal vaccines as a priority for HCP-patient conversations
 - Communicate HCPs strong influence over patient decisions and raise awareness of vaccination gaps
- Equip providers with talking points to guide conversations around specific vaccines to potentially increase likelihood to engage in patient vaccine conversations and strengthen quality of recommendations
- Tailor HCP-focused communications to specifically address Black/AA patients and their concerns, to encourage patient conversations, and facilitate patient receptivity to vaccines
 - Organizations may consider engaging other trusted messengers (e.g., Black HCP orgs), to help address distrust
- Pre-test materials with members of intended audiences

Thank you!

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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.



Supplemental Slides

Participants Characteristics - Pregnant People Groups (n=69)

Demographic Information		n
Gender	Female	69
	Male	0
Race	Black or African American	37
	White	18
	Other	14
Ethnicity	Hispanic or Latino	6
	Not Hispanic or Latino	63
Income	Less than \$25k	2
	\$35K-\$50K	6
	\$50-\$75K	19
	\$75-\$100k	15
	\$100k+	27
Region	Northeast	12
	Midwest	12
	South	35
	West	10
Community	Urban	19
	Suburban	45
	Rural	5

Demographic Information		n
First Time Pregnancy	Yes	34
	No	35
Education	High School or GED	3
	Associates or technical degree	12
	Four-year college	34
	Post-graduate degree	20
Primary Prenatal Healthcare Provider Specialty	OB/GYN	53
	Midwife	7
	Group Practice	7
	Nurse Practitioner / Physician Assistant	1
	Family Practitioner	1
Received Vaccination during Current Pregnancy	Yes	22
	No	47

Participant Characteristics – HCP Interviews (n=12)

Demographic Information		n
Gender	Female	10
	Male	2
Race	Black or African American	3
	White	6
	Other	3
Ethnicity	Hispanic or Latino	2
	Not Hispanic or Latino	10
Age	Less than 39	4
	40-49	3
	50-59	3
	60+	2
Region	Northeast	2
	Midwest	2
	South	5
	West	3
Community	Urban	4
	Suburban	5
	Rural/Small town	3

Demographic Information		n
% Black / AA patients	More than 25% but less than 50%	7
	50% or more	5
Occupation	Certified Nurse Midwife	3
	Nurse Practitioner	3
	Physician (MD)	4
	Physician (DO)	2
Years in Practice	Less than 10	3
	10-20	5
	More than 20	4
Practice Setting	Solo	2
	Multi-specialty group	4
	Mixed model	1
	Hospital based	2
	Community health clinic	2
	Indigent care facility / publicly managed and funded clinic	1

Participant Characteristics – Pregnant People Interviews (Existing Materials Testing) (n=24)

Demographic Information		n=24
Gender	Female	24
Age	18-39	22
	40-49	2
Ethnicity	Hispanic or Latino	3
	Not Hispanic or Latino	21
Race	White	9
	Black or African American	10
	Asian	2
	Hispanic or Latino	3
Education	High school diploma or GED or less	4
	Some college/associate degree/or technical degree	6
	Four-year college degree	11
	Post-graduate degree	3

Demographic Information		n=24
Employment	Full-time employment	17
	Stay-at-home parent or homemaker	7
	Unemployed	-
Income	Less than \$25,000	2
	\$25,000 to under \$50,000	7
	\$50,000 to under \$75,000	2
	\$75,000 to under \$100,000	7
	\$100,000 or more	6
Urbanicity	Urban	5
	Suburban	14
	Rural	4
	Not sure	1
Region	Northeast	6
	South	5
	Midwest	10
	West	3

Pregnant People Focus Group Findings: Tdap Vaccine Decision Making

Reasons for Getting Vaccinated Against Tdap

- Protect unborn child/will have antibodies during first months
- Whooping cough is a serious disease
- No side effects from the vaccine
- Doctor recommendation
- Immunity is low for a newborn
- Protects pregnant person in addition to the baby
- Convenient to get it at pharmacy or doctor's office
- Pregnant person is more vulnerable to disease due to an underlying condition
- Peace of mind
- Protects against multiple diseases

Reasons for Not Getting Vaccinated Against Tdap

- Unfamiliar with it and what it protects against
- Unsure about the safety and side effects of the vaccine
- Doctor didn't mention it
- Potential long-term side effects on child
- Not necessary or mandatory
- Already had it before pregnancy
- Once the child is born, they will receive the vaccine
- Underlying conditions of pregnant person
- Don't want vaccinations while pregnant as the pregnant person and baby are already fragile

Pregnant People Focus Group Findings: Flu Vaccine Decision Making

Reasons for Getting Vaccinated Against Flu

- Having the flu on top of being pregnant would be difficult and certain medicines cannot be taken while pregnant
- Immunity is lower during pregnancy
- Provides immunity/antibodies to the baby
- Flu could lead to larger issues for the pregnant person or baby
- Pregnant person typically got vaccinated every year before being pregnant
- Easy to get at several locations
- Doctor recommendation
- Exposure risk is high for those in densely populated areas

Reasons for Not Getting Vaccinated Against Flu

- Would rather risk contracting the flu, either because:
 - Past experiences of feeling sick after getting the vaccine or getting the flu despite being vaccinated
 - Rarely or never have gotten the flu in the past
- Not effective against all strains and different every year
- Other ways one can protect themselves, including natural immunity, not being exposed to many people, vitamins (more common among Black/AA participants)
- Afraid to inject anything into their body while pregnant
- If the pregnant person were to experience side effects from the vaccine, the baby and pregnant person are already fragile and may be unable to take medications to address their side effects due to being pregnant
- Uncertainty of how flu vaccination might interact with other vaccines or medicines
- Uncertainty of the effects on the baby in the future

Tested Messages – Pregnant People Focus Groups

- A pregnant person can protect themselves and pass on critical disease protection to their baby before it is born. Vaccines have been given during pregnancy for decades to help protect pregnant people and their babies from diseases that can be serious in newborns, like flu and whooping cough.
- Protect yourself and your baby. Talk to a trusted healthcare professional about getting flu and whooping cough vaccines during pregnancy.
- Pregnant people are at higher risk of serious illness and complications, including hospitalization, from flu. Vaccination during pregnancy can help protect you and your baby.
- Whooping cough is a serious disease that can be deadly for babies. Getting a Tdap vaccine during pregnancy gives babies protection against whooping cough before they're even born.