Prenatal Immunization Information Session for Healthcare Providers

- LAC DPH Updates:
  - *Acetaminophen use in Pregnancy*
  - *Immunization updates*
- Evidence-Based Strategies to Increase Prenatal Vaccine Uptake

Vaccine Preventable Disease Control Program

October 2, 2025

Update:
Acetaminophen use in Pregnancy

Presented by: Priya Batra, MD, MS, FACOG

Beginning from the end – *take-home message*

Acetaminophen has long been established as a safe pain reliever and fever reducer for use during pregnancy.

The use of acetaminophen in pregnancy is appropriate when taken as needed, in moderation, and after consultation with a doctor.

American College of Obstetricians & Gynecologists (ACOG), 9/22/25

Why is this our message?

- Research to date
- Risks, benefits, and alternatives
- Positions from medical societies

County of Los Angeles Public Health

Research to date

- Research on associations between autism and acetaminophen has been ongoing for two decades
- Collectively, this research has provided no definitive evidence of increased risk of autism associated with appropriate use of acetaminophen in pregnancy

County of Los Angeles Public Health

Research to date

- Limitations of many studies: reliance on self-report, poor/no dosage information, variable neurodevelopmental outcomes, no controls for confounders
- Key reviews (*for your reference*)
  - Society for Maternal Fetal Medicine (SMFM) 2017
  - Food and Drug Administration (FDA) 2015
  - High quality individual studies (Gustavson et al., 2021 and Ahlqvist et al., 2024)

Risks, benefits, and alternatives

- Acetaminophen is an important tool in the management of fever and pain
  - Untreated fever: maternal hyperthermia in the first trimester is associated with increased risk of neural tube defects and other congenital anomalies
  - A first-line option for certain cases of pain (headache, post-procedure)
- Other analgesics may be used in pregnancy – consider restrictions, contraindications, and gestational age with your patients

Positions from medical societies

- Support statements from ACOG and SMFM
- Other organizations affirming the safety of appropriate acetaminophen use: CA state health agencies, OB anesthesia, Canadian OBGYN society

County of Los Angeles Public Health

Update: Immunization

Presented by: Melanie Barr, MSN, CNS, RN

- 9/17/25 -Immunization standards for many CA laws changed from federal Advisory Committee on Immunization Practices (ACIP) to CDPH recommendations

- Vaccines will be covered by health care insurers regulated by the Department of Managed Health Care (PDF).

- Liability protection for providers administering vaccines in accordance with CDPH guidance.

- Pharmacists may administer vaccines recommended by CDPH to patients ≥3 years without a prescription

WCHA 2025-2026 Resp. Virus Season Immunization Recommendations

Age/Condition	COVID-19	Influenza	RSV
Children	• All 6-23 months • All 2-18 years with risk factors or never vaccinated against COVID-19 • All who are in close contact with others with risk factors[1] • All who choose protection[1]	• All 6 months and older	• All younger than 8 months[2] • All 8-19 months with risk factors
Pregnancy	• All who are planning pregnancy, pregnant, postpartum or lactating	• All who are planning pregnancy, pregnant, postpartum or lactating	• 32-36 weeks gestational age[2, 3]
Adults	• All 65 years and older • All younger than 65 years with risk factors • All who are in close contact with others with risk factors • All who choose protection	• All	• All 75 years and older[3] • All 50-74 years with risk factors[3]

1. COVID-19 vaccine is available for persons 6 months and older.
2. Protect infants with either prenatal RSV vaccine or infant dose of nirsevimab or clesrovimab.
3. RSV vaccination during pregnancy or for adults is currently recommended once rather than annually.

Public Health for All

Guest Presenter

Dr. Oluwatosin “Tosin” Goje, MD, MSCR
Associate Professor of Obstetrics and Gynecology (OB/GYN) and Reproductive Biology at the Cleveland Clinic Lerner College of Medicine

Prenatal Immunization Session for Healthcare Providers

Tosin Goje, MD, MSCR, FACOG
Associate Professor, Obstetrics &Gynecology
10.2.25

Cleveland Clinic

Learning Objectives

01

Appraise the importance of immunization.

02

Demonstrate understanding of various reasons for vaccine hesitancy.

03

Apply evidence-based strategies to increase vaccine uptake.

Clinical Case 1

- 22-year-old first-time mom in her second trimester, tells you she read online that the COVID-19 and flu vaccines can cause miscarriage. She tells you her mother and grandmother believe that vaccines during pregnancy are dangerous. She plans to avoid all shots during pregnancy.

Clinical Case 2

- 28-year-old first-time mom in her first trimester, tells you she read online that the flu vaccines can cause miscarriage. She tells you she gets the flu anytime she is vaccinated. She says she doesn't trust the vaccine and plans to avoid all shots during pregnancy.

Why Immunization Discussion is Important

- Vaccination is one of the most impactful health interventions, saving millions of lives globally every year.
- It is effective and efficient, safeguarding individuals from preventable diseases and contributing to the health and well-being of communities.
- Vaccination plays a pivotal role in driving economic progress by reducing healthcare cost and mitigating the burden of diseases.
- Maternal vaccination protects mother-baby dyad.

Vaccines Routinely Recommended During Pregnancy

ACOG
The American College of Obstetricians and Gynecologists

Prenatal Care Checklist

Vaccines:

- [x] Flu vaccine
  - [ ] declined
- [ ] RSV vaccine 32 0/7 - 36 6/7 (Sept - Feb)
  - [ ] declined
- [ ] COVID vaccine
  - [ ] declined
- [x] TDaP 27-36
  - [ ] declined

ACOG's current recommendations for vaccination during pregnancy for Tdap, COVID-19, influenza, and RSV remain in place.

"For the sake of public health and the health of individuals across the country, immunization recommendations must be based on the full body of medical evidence, without bias or prejudice,"

"Immunization is especially important during pregnancy, when the risks of severe outcomes are heightened—and when vaccines can provide critical protection to the infant after birth. The prospect of unvaccinated patients and their infants developing respiratory distress and being hospitalized from COVID-19, flu, or RSV is frightening.

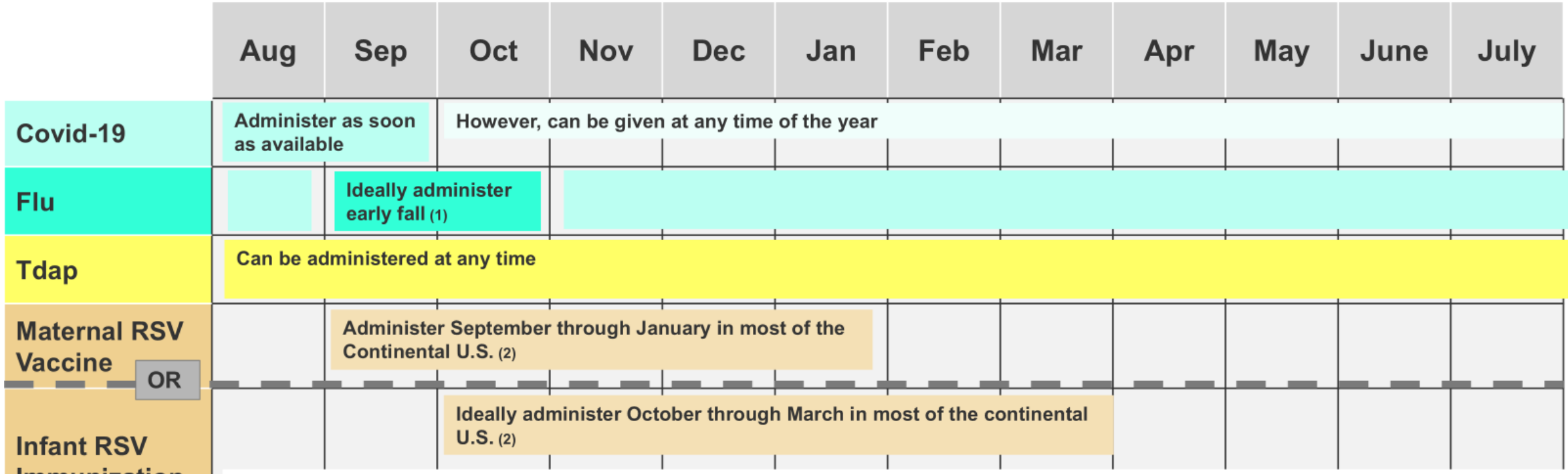
The fact remains that vaccination is our best tool to prevent serious outcomes from respiratory diseases."

Vaccines Routinely Recommended During Pregnancy

- Influenza vaccine
- Tdap vaccine
- COVID-19 vaccine
- RSV vaccine

**Can be offered to nonimmune persons*

Summary – Timing and administration of Maternal Vaccines



[1] Children who need 2 doses should receive their first dose as soon as possible (including during July and August). One dose of flu vaccine can be considered for pregnant people in their third trimester during July and August.

[2] In jurisdictions with RSV seasonality that differs from most of the continental United States, including Alaska, southern Florida, Guam, Hawaii, Puerto Rico, U.S.-affiliated Pacific Islands, and U.S. Virgin Islands, providers should follow state, local, or territorial guidance. However, nirsevimab may be administered outside of routine seasonal administration (ie, October through March) based on local RSV activity and other special circumstances.

ACOG

Know the Difference

Meeting the challenge of vaccine hesitancy

CLEVELAND CLINIC JOURNAL OF MEDICINE VOLUME 91 • NUMBER 9 • SUPPLEMENT 1 SEPTEMBER 2024

Determinants of Vaccine Hesitancy

- Environmental Factors
- Personal Factors
- Social Factors
- Safety and vaccine-related Factors

Environmental Factors

Socioeconomic Status

Access barriers

Complacency

Lack of information or misinformation

Vaccine mandates and Government policies

Personal Factors

- Individual beliefs and preferences
- Cultural and religious beliefs
- Perception of disease risk
- Trust in healthcare providers and institutions
- Previous negative experiences
- Historical trauma and discrimination

Social Factors

Social networks and peer influence

Media and information sources

Stigma and discrimination

Misinformation and disinformation

Addressing Hesitancy

Understand:	Understand the root cause
Align:	Align the intervention to the root cause
Adopt:	Adopt effective communications

Strategies to Improve Vaccine Confidence

EDUCATION AND CLEAR COMMUNICATION

COMMUNITY ENGAGEMENT

LEGISLATION AND POLICY

REDIRECT SOCIAL MEDIA WITH RELIABLE INFORMATION

ADDRESS MISINFORMATION AND DISINFORMATION

RESEARCH AND INNOVATION

Strategies during Pregnancy

01

Incorporate vaccine discussion into prenatal care

02

Have a checklist for vaccines in prenatal care

03

Include perinatal patients into clinical trials

04

Have a registry that is transparent and accessible to community

Strategies during Pregnancy

1

Acknowledge historical context

- Communities with mistrust of the healthcare system

2

Use trusted media and leaders to counteract misinformation

3

Listen to their voices and concerns

4

Outline strategies with community

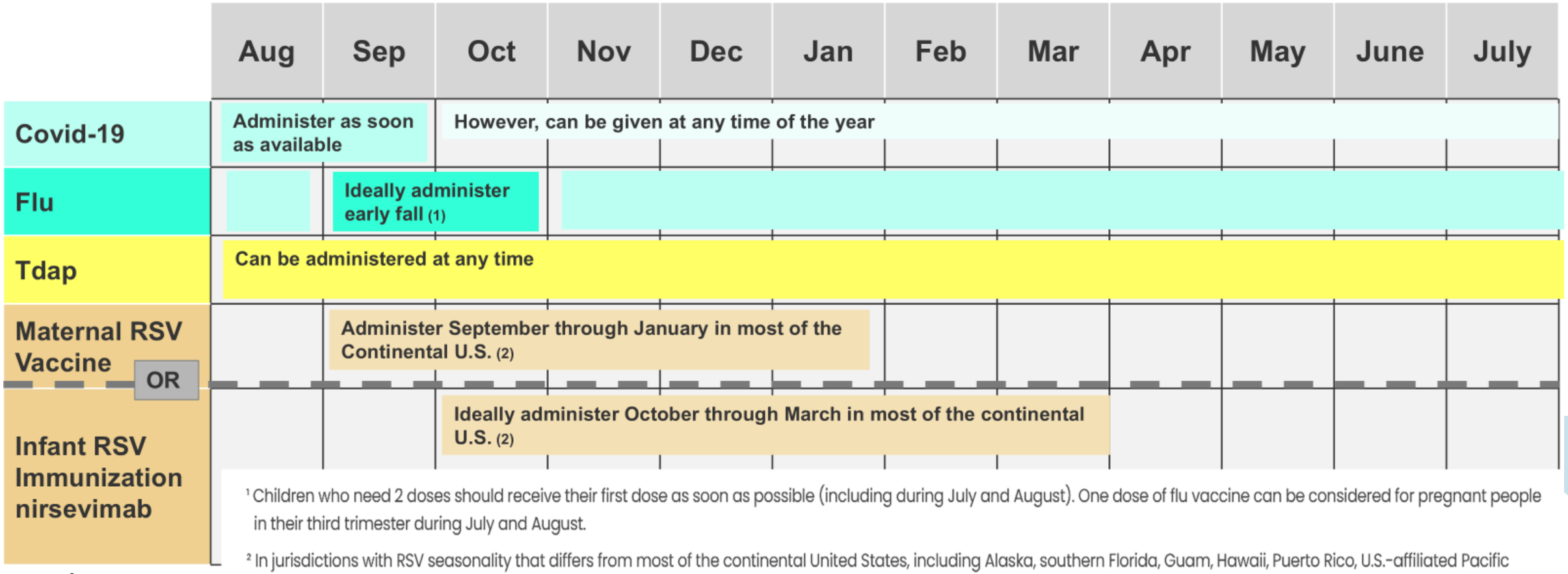
Integrate Non-Medical Staff

- Doulas/Community Health Workers are allies in vaccine advocacy.
  - Trust, empathy, and education make a difference.
  - Close, ongoing contact with birthing individuals.
  - Deep cultural and emotional connection.
  - Unique position to influence health decisions.

The Obstetric Provider

- Counseling by an OB provider is powerful.
- Be clear and transparent.
  - Risks and Benefits.
  - Don’t be dismissive.
- Continue to care for patients who decide not to be vaccinated, share resources, and encourage the continued use of prevention measures.
  - Document conversation: Accepted/Declined/Undecided

Summary – Timing and administration of Maternal Vaccines



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Tdap Vaccine

- Vaccinate between 27-36 weeks of gestation.
- Morbidity and mortality attributable to pertussis (whooping cough) occurs in infants who are 3 months and younger. Infants do not begin their own vaccine series against pertussis until approximately 2 months of age.
- Pregnant women should be counseled that the administration of Tdap during each pregnancy is safe and important to make sure that each newborn receives the highest possible protection against pertussis at birth.

COVID-19 Vaccine

- Vaccine may occur at anytime/trimester.
- **ACOG strongly recommends in pregnancy.**
  - Receive a vaccine or booster dose once available.
- COVID-19 infection in pregnancy has historically been associated with an increased risk of severe disease, adverse pregnancy outcomes, maternal death.
- Severe COVID-19 infection associated with increased risk of preterm birth.

RESEARCH

The impact of COVID-19 on pregnancy outcomes: a systematic review and meta-analysis

Shu Qin Wei MD PhD, Marianne Bilodeau-Bertrand MSc, Shiliang Liu MB PhD, Nathalie Auger MD MSc

RESULTS: We included 42 studies involving 438 548 people who were pregnant.

INTERPRETATION: COVID-19 may be associated with increased risks of pre-eclampsia, preterm birth and other adverse pregnancy outcomes.

COVID-19 Vaccine

- There is no evidence of adverse maternal/ fetal effects from vaccinating pregnant individuals with the COVID-19 vaccine.
- The effectiveness of COVID-19 vaccines is similar in pregnant and nonpregnant individuals of similar age for prevention of COVID-19 infection and hospitalizations.
- COVID-19 vaccines decrease the risk of severe COVID-19 disease
  - Even if a patient gets sick after being vaccinated, their chance of becoming severely ill is extremely low.
- Vaccination during pregnancy provides passive immunity to the infant, protecting them from COVID-19 in the first few months of life before they can be vaccinated.

ACOG strongly recommends that all pregnant and lactating people receive an updated COVID-19 vaccine/booster.

Influenza Vaccine

- Vaccination between Oct-May. Preferably in October.
- Vaccination may occur at any trimester.
- Vaccine decreases risk of severe disease; it will not prevent all infections but ameliorates severity.
- Immune changes in pregnancy may increase the risk of flu complications such as preterm birth.
- Vaccine protects mother and baby; especially when administered in the third trimester.
  - Passive immunity to fetus.
  - Babies do not receive vaccine until 6 months of age.

Maternal RSV Vaccine

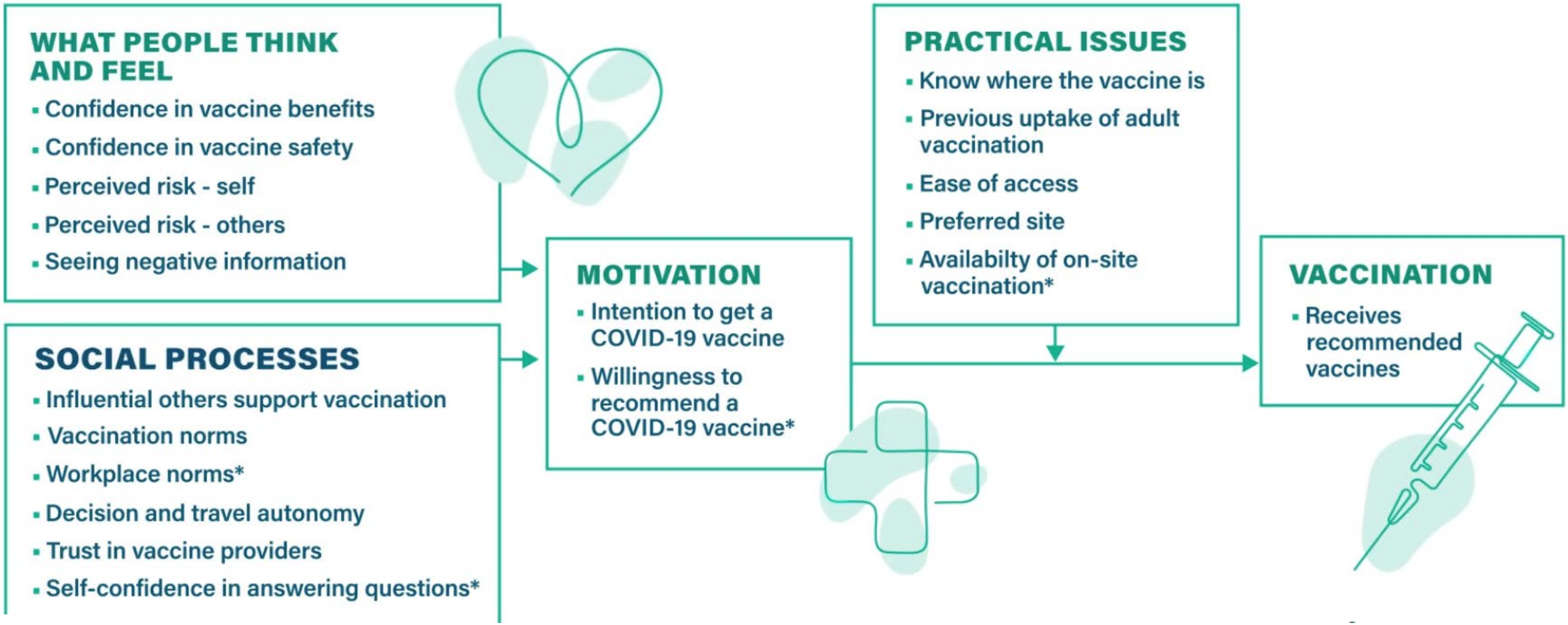
- Infant hospitalization rate is highest among 0-6 months of age.
- Estimated 100-300 children less than 5 years of age die yearly.
- Maternal vaccination occurs between Sept-January.
- Vaccination occurs between 32-36w6d during the RSV season.
- Do not administer if delivery is planned <2 weeks.
- It is administered once and do not give if patient received in previous pregnancy.
    - Counsel and discuss the administration of monoclonal antibodies within 1 week of delivery and by 8 months of infant life if maternal RSV was not given.

Maternal RSV Vaccine

- Efficacy: Vaccine reduced the risk of severe Lower Respiratory Tract Infection (LRTI) in infants by 81.9% within 90 days and 69.4% within 180 days post delivery.
- Effectiveness: Significantly decreased RSV LRTI and hospitalization in the first 6 months of life and markedly documented decrease in the first 3 months of infants' life.
- Safety: Preterm birth documented in research: 5.7% vs.4.7 %; however, in the 2023-2024 season, PTB was 4.1% (expected range in population 3.1%-6.1%).
  - Slight increased risk of gestational hypertension, however not severe preeclampsia.

- Razzini 2025, Perez 2025, Gentile 2025, Williams 2025, Moro 2024, Desilva 2025, Fleming Dutra 2023, Jones 2023.

Drivers Associated with Vaccination



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*Relevant to health care workers

BeSD Working Group. Brewer t al. Psychol Sci Public Interest. 2017

Key Takeaways

Train healthcare providers to deliver culturally competent counseling

Include shared medical decision

Involve community leaders in the conversation

Data collection is important

Meeting the challenge of vaccine hesitancy

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KEY FACTS ABOUT VAERS

VAERS

Vaccine Adverse Event Reporting System

Let's share some key facts about VAERS.

Questions?

Thank you!

For questions, please contact:

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