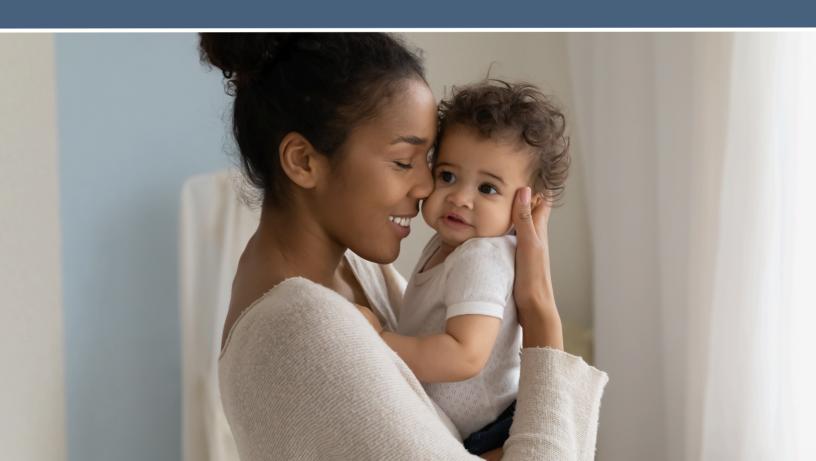


## Vaccines 101

2024 Edition



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Vaccinate Your Family now	,
offers an online vaccine less	on
for WIC clients!	

Contact Terisa from
WICHealth.org at
terisa.pollock@maiasynergy.com
if you are interested in having
this vaccine lesson available for
your clients.

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## Introduction

Vaccinate Your Family created this booklet to provide WIC staff with key messages about the importance of vaccination. The booklet also provides an overview of immunization screening guidance on making vaccine referrals to authorized providers. A list of immunization resources can be found at the end of this booklet.



## Vaccine-Preventable Diseases (VPDs) and the Vaccines that Prevent Them

Disease	Vaccine
Chickenpox	Varicella
COVID-19	COVID-19
Diphtheria	DTaP
Haemophilus influenzae type b	Hib
Hepatitis A	НерА
Hepatitis B	НерВ
Human papillomavirus	HPV
Influenza (Flu)	Flu
Measles	MMR
Mumps	MMR
Pertussis (whooping cough)	DTaP
Polio	IPV
Pneumococcal	PCV
Meningococcal	MenACWY, B
Respiratory syncytial virus	RSV
Rotavirus	RV
Rubella	MMR
Tetanus	DTaP

#### Why are vaccines important?

- Vaccines save lives. Vaccines offer the best-known protection against a number of devastating illnesses, but they must be given according to the Centers for Disease Control and Prevention's (CDC) recommended immunization schedules (www.cdc.gov/vaccines) in order to best protect children, adolescents, and adults.
- Measles is a very contagious disease that can cause serious health complications, hospitalizations, and even death. The U.S. continues to experience measles outbreaks throughout the country. Travelers with measles continue to bring the disease with them into the U.S. and then spread it to others. The majority of people who got measles during the recent outbreaks in the U.S. were unvaccinated.
- COVID-19 remains a top 10 cause of death for many age groups in the U.S., including children over 5 years old.

- Large outbreaks of pertussis (also known as whooping cough) continue to occur in the U.S. Infants under 1 year old are at the greatest risk for serious illness and death from pertussis. There were 5,611 cases of pertussis reported to the CDC in 2023. To reduce the risk of pertussis in newborns, pregnant people should receive a Tdap vaccine during the third trimester of every pregnancy.
- Young children and pregnant people are at high risk of severe flu illness and its complications. During the 2023-24 influenza season, 199 pediatric deaths due to flu were reported to the CDC. Flu vaccination can be lifesaving in children. A 2017 study showed that flu vaccination can significantly reduce a child's risk of dying from flu.4 Flu vaccination has also been shown to protect mother and baby during and after pregnancy.



**Every minute, six** lives are saved by vaccines worldwide5

## What happens when we delay vaccinations or don't vaccinate our children?

 Parents who obtain vaccination exemptions for their children are putting their children at risk for serious diseases. For example, studies have shown that children with exemptions are 22 times more likely to get measles than nonexempt peers.<sup>6</sup>

Children with vaccine exemptions are

22x

more likely to contract measles in their lifetime <sup>6</sup>

• Parents who choose to delay vaccines or not vaccinate their children are putting their children and others in their community at risk. Diseases can travel quickly through a community and make a lot of people sick. However, when enough people are vaccinated against a certain disease, the germs can't travel as easily from person to person, and the entire community is less likely to get the disease. This is known as "community immunity" or "herd immunity." In order to protect everyone in the community, including those who cannot be immunized, from vaccine-preventable diseases, immunization rates must remain high.

## Why is it important to follow the recommended vaccine schedules?

- Healthcare providers, scientists, and public health experts work to develop childhood and adult vaccination schedules in the U.S., giving people of all ages the most effective and safest protection from diseases possible. By following the CDC's recommended immunization schedule, parents can help give their children immunity before they are exposed to potentially life-threatening diseases.
- "Non-standard" vaccine schedules, which are not tested or approved by experts, put children at risk. It is not advisable to skip or delay vaccines, as this will leave a child susceptible to diseases for a longer period of time, a practice that can prove deadly for vulnerable infants. If a baby is not too young to get the disease, they are not too young to get the vaccine.

## How can we protect ourselves, our families and our communities?

- Getting vaccinated can protect others around you from getting dangerous vaccine-preventable diseases, especially young babies who have not yet received all of their vaccines and those who cannot be vaccinated due to medical reasons. We must each do our parts to limit everyone's exposure to diseases. Just as you count on others not to knowingly expose you to dangerous illnesses, they rely on you.
- When someone gets vaccinated against flu, COVID-19, RSV, and pertussis (also known as whooping cough) during pregnancy, they are not only protecting themselves, but they are also giving some early disease protection to their babies. When a pregnant person gets vaccinated, antibodies are transferred to their developing baby, protecting the newborn for the first few months of life. However, this immunity decreases over time. That's why infants need to be vaccinated according to the CDC's recommended immunization schedule to stay protected against 16 serious and potentially life-threatening diseases.
- The CDC, the American College of Obstetricians and Gynecologists (ACOG), the American College of Nurse- Midwives (ACNM), the American Academy of Family Physicians (AAFP) & the Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) all strongly recommend flu, COVID-19, RSV, and pertussis (Tdap) vaccinations for pregnant people.
- Parents should also request that anyone who will be around their newborn, including healthcare providers, childcare providers, friends and family members, be up-to-date on their pertussis (Td or Tdap), COVID-19, and flu vaccinations at least two weeks before meeting the new baby.
- People should get information about vaccines and their family's health from their healthcare provider and credible organizations such as the CDC, the American Academy of Pediatrics, ACOG, and Vaccinate Your Family.



#### Are vaccines safe?

- Since vaccines are administered to otherwise healthy people, they are among the most rigorously tested and safest medical products on the market. Once they are approved by the U.S. Food and Drug Administration (FDA) and recommended for use by the CDC's Advisory Committee on Immunization Practices (ACIP), continuous monitoring by four safety systems in the U.S. helps to ensure that each dose of the vaccine is safe.
- Concerns about the safety of vaccines and the possible link between vaccines and autism (and vaccines and other health conditions) are not supported by scientific evidence.
- No credible scientific study has ever found a link between vaccines and autism. In fact,
  Andrew Wakefield, the researcher who made the initial claim, has since had his medical
  license revoked. Wakefield's study, which was proven to contain falsified data, has been
  retracted from the journal that originally published it.
- Vaccines may cause mild side effects (such as fever or soreness at the injection site).
   Vaccines may also have severe, but extremely rare side effects (such as an allergic reaction). The potential harm from the actual diseases far outweighs the potential risk for vaccine side effects.

#### What are the ingredients in vaccines?

• The main ingredients in vaccines are antigens, which are small amounts of the bacteria or virus against which the person is being vaccinated. Antigens are the parts of the vaccine that encourage your immune system to create antibodies to fight against future infections. To make sure that the vaccines cannot cause the disease you are trying to protect against, the antigens are altered or weakened. In mRNA vaccines like the COVID-19 vaccines, the antigen is not a weakened virus or bacteria but a small piece of genetic material known as messenger RNA (mRNA). This mRNA provides instructions for your cells to produce a harmless piece of the spike protein found on the virus's surface, triggering an immune response that prepares your body to fight the actual virus if exposed. Like many of the foods we eat and beverages we drink, vaccines also contain a small amount of additional ingredients, and each has a specific, necessary function. These ingredients may be added to the vaccine to make it more effective, sterile, and/or safe. These additional ingredients have been studied and are safe for humans in the amount used in vaccines.

For more information about vaccines, check out the "Vaccines Explained" animated video playlist on our YouTube channel!

## **Screening for Vaccinations**

#### **Counting DTaP Vaccinations**

In 2003, the CDC, in cooperation with United States Department of Agriculture (USDA) and the National WIC Association, developed a simplified method for WIC staff to monitor vaccination status of children under two years of age. The 4th dose of DTaP (diphtheria, tetanus, and acellular pertussis vaccine) was chosen to be the marker to identify whether or not children were up-to-date on their vaccinations. Use of this strategy increased the immunization rates of WIC participants by ten percent.

When asked if a child is up-to-date, parents typically overestimate their child's vaccination status. A documented record of vaccinations is more accurate than a parent's memory. A documented record is a record (computerized or paper) in which actual vaccination dates are recorded. This includes a parent's hand-held immunization record (from the provider), a client chart (paper copy), or a printout from an Immunization Information System (IIS) or electronic medical record (EMR).

Immunization Information Systems, also known as immunization registries, are confidential, electronic systems that contain vaccination histories and provide immediate access to a child's current vaccination status. They are one of the most accurate ways to determine a child's vaccination status. IIS were created in conjunction with the CDC and are available in every state. Some states have more than one IIS. The majority of IIS in the United States allow WIC staff to access children's immunization records in the system. Some IIS allow "read only" access, while others allow WIC staff both "read" and "write" access. To find out if your WIC clinic is able to view vaccination records in your state or local IIS, please contact the IIS manager.



Pictured: older examples of immunization records (not including electronic records).

A list of state immunization information systems can be found on the <u>CDC's website</u>.

## Screening for Vaccinations

#### **Guide to Counting DTaP Vaccinations**

An easy tool has been created to assist WIC staff in assessing children's vaccination status by counting the number of DTaP vaccinations they have received:

Child's Age	Minimum Number of DTaP Doses
Birth to One (1) Month	0
Three (3) Months	1
Five (5) Months	2
Seven (7) Months	3
Nineteen (19) Months	4

#### **Making Referrals**

Another important part of the vaccination assessment process is advising the parent about the results of the child's immunization screening and if necessary, referring them to a healthcare provider that gives childhood vaccinations. In addition, WIC staff may also want to provide them with other valuable resources such as a copy of the CDC's immunization schedule and/or one or more of the educational handouts from Vaccinate Your Family's 2024 Immunization Resources for Parents and Parents-to-Be (in <a href="English">English</a> and <a href="Spanish">Spanish</a>).

If possible, work with your state or local immunization program staff to identify providers in your community who offer immunizations. Make a list of providers including private providers (pediatricians/family practice doctors); walk-in clinics; appointment-only clinics; mobile vans; and on-site immunization services.

Check out the <u>Paying for Vaccines</u> tool on our website to help your clients find vaccine availability based on their insurance status.

## Your child needs vaccines as they grow!

#### 2024 Recommended Immunizations for Birth Through 6 Years Old

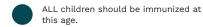
#### Want to learn more?

Scan this QR code to find out which vaccines your child might need. Or visit www.cdc.gov/vaccines/tool/child.html



VACCINE OR PREVENTIVE ANTIBODY	BIRTH	<b>1</b> MONTH	2 MONTHS	4 MONTHS	6 MONTHS	<b>7</b> MONTHS	8 MONTHS	<b>12</b> MONTHS	<b>15</b> MONTHS	<b>18</b> MONTHS	19 MONTHS	<b>20-23</b> MONTHS	<b>2-3</b> YEARS	<b>4-6</b> YEARS
RSV antibody		Depend	s on mother'	s RSV vaccin	e status			Depends o	on child's hea	alth status				
Hepatitis B	Dose 1	Dos	se 2				Dos	se 3						
Rotavirus			Dose 1	Dose 2	Dose 3									
DTaP			Dose 1	Dose 2	Dose 3				Dos	se 4				Dose 5
Hib			Dose 1	Dose 2	Dose 3			Dos	se 4					
Pneumococcal			Dose 1	Dose 2	Dose 3			Dos	se 4					
Polio			Dose 1	Dose 2			Dos	se 3						Dose 4
COVID-19								At least 1 d	lose of the cu	urrent COVID	-19 vaccine			
Influenza/Flu								Every y	ear. Two dos	es for some c	hildren			
MMR								Dos	se 1					Dose 2
Chickenpox								Dos	se 1					Dose 2
Hepatitis A									2 doses s	separated by	6 months			

#### KEY



SOME children should get this dose of vaccine or preventive antibody at this age

#### Talk to your child's health care provider for more guidance if:

- 1. Your child has any medical condition that puts them at higher risk for infection.
- 2. Your child is traveling outside the United States.
- 3. Your child misses a vaccine recommended for their age.







#### Older children and teens need vaccines too!

#### 2024 Recommended Immunizations for Children 7-18 Years Old

#### Want to learn more?

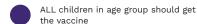
Scan this QR code to find out which vaccines your child might need. Or visit www.cdc.gov/vaccines/tool/teen.html



RECOMMENDED VACCINES	7 YEARS	8 YEARS	9 YEARS	10 YEARS	11 YEARS	12 YEARS	13 YEARS	14 YEARS	15 YEARS	16 YEARS	17 YEARS	18 YEARS
HPV												
Tdap¹												
Meningococcal ACWY												
Meningococcal B												
Influenza/Flu	Every year. for some	Two doses children					Every	y year				
COVID-19					At least 1	dose of the cu	urrent COVID-1	19 vaccine				
RSV								If pregnant dur	ing RSV season			
Мрох												
Dengue			ONLY if li	ving in a place	where dengue	is common ANI	D has laborator	y test confirmin	ng past dengue	infection		

<sup>&</sup>lt;sup>1</sup> One dose of Tdap is recommended during each pregnancy

#### **KEY**



ALL children in age group can get the vaccine



SOME children in age group should get the vaccine



Parents/caregivers should talk to their health care provider to decide if this vaccine is right for their child

#### Talk to your child's health care provider for more guidance if:

- 1. Your child has any medical condition that puts them at higher risk for infection or is pregnant.
- 2. Your child is traveling outside the United States.
- 3. Your child misses any vaccine recommended for their age or for babies and young children.







## Immunization Recommendations

#### **Vaccinations Before, During, & After Pregnancy**

Vaccines help keep your pregnant clients and their families healthy! These recommendations are also supported by the American Academy of Family Physicians, the American College of Obstetricians and Gynecologists, the American College of Nurse-Midwives, and the Association of Women's Health, Obstetric and Neonatal Nurses.

Vaccine	Before?	During?	After?
COVID	Yes	Yes	Yes
Influenza	Yes	Yes (in season) <sup>1</sup>	Yes
Tdap	Yes, but better during pregnancy	Yes, during every pregnancy	Yes; if not during pregnancy then right after birth
RSV	No	Yes <sup>2</sup>	No
Hepatitis A	Maybe <sup>3</sup>	Maybe <sup>3</sup>	Maybe <sup>3</sup>
Hepatitis B	Maybe <sup>3</sup>	Maybe <sup>3</sup>	Maybe <sup>3</sup>
Meningococcal	Maybe <sup>3</sup>	Maybe <sup>3</sup>	Maybe <sup>3</sup>
Pneumococcal	Maybe <sup>3</sup>	Maybe <sup>3</sup>	Maybe <sup>3</sup>
HPV	Maybe <sup>3</sup> through age 45	No	Maybe <sup>3</sup>
MMR	Maybe <sup>3</sup>	No	Maybe <sup>3</sup>
Varicella	Maybe <sup>3</sup>	No	Maybe <sup>3</sup>

<sup>&</sup>lt;sup>1</sup>Pregnant people should get a flu shot as the nasal spray vaccine (LAIV) is not recommended.

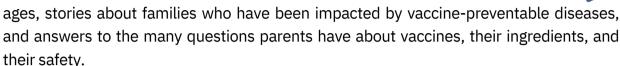
<sup>&</sup>lt;sup>2</sup> The current recommendation for maternal RSV vaccination is once per lifetime.

<sup>&</sup>lt;sup>3</sup> Vaccine recommendation depends on the pregnant person's vaccination status and specific risk factors.

## Additional Immunization Resources

Vaccinate Your Family (www.vaccinateyourfamily.org)

This website, which is hosted by Vaccinate Your Family, contains information about immunizations for people of all



http://

Immunization Resources for Parents and Parents-to-Be (2024 Version) (www.vaccinateyourfamily.org/wp-content/uploads/2024/09/Resourcesfor-Parents-2024-EN.pdf)

Immunization Resources for Parents and Parents-to-Be was created to provide resources to assist WIC staff and WIC participants who have questions about vaccines. This booklet, which brings together existing resources from the CDC and VYF, addresses the importance of immunizations for children, adolescents, and adults (including pregnant women). Also included are easy-to-read immunization schedules, information on the Vaccines for Children (VFC) program, and information about Immunization Information Systems. This booklet may be downloaded and copied in full or individual documents from the booklet can be copied and distributed by WIC staff.

Recursos de vacunación para padres y las mujeres embarazadas (Edición 2024) (www.vaccinateyourfamily.org/wp-content/uploads/2024/09/Resources-For-Parents-2024-SP.pdf)

Recursos de vacunación para padres y las mujeres embarazadas is the Spanish version of the Immunization Resources for Parents and Parents-to-Be booklet. It was created to help answer questions that WIC staff and Spanish-speaking WIC participants may have about vaccines. This booklet, which brings together existing resources from the CDC and VYF, addresses the importance of immunizations for both children and adults (including pregnant women). Also included are easy-to-read immunization schedules, information on the Vaccines for Children (VFC) program, and information about immunization information systems. This booklet may be copied in full or individual documents from the booklet can be copied and distributed by WIC staff.

Fotonovela: Vaccines During Pregnancy (https://vaccinateyourfamily.org/fotonovela/

Vaccinate Your Family and Día de la Mujer Latina partnered to create this fotonovela answering common questions and concerns about vaccines during pregnancy.

#### **Additional Immunization Resources**

Vaccinate Your Family Poster for Davcares and WIC Clinics (https://ymiclassroom.com/lesson-plans/vyf)

Vaccinate Your Family created this colorful poster to promote vaccinations and other ways to stop the spread of germs. It may be downloaded, printed, and used in many different settings.



Vaccines and Immunizations (www.cdc.gov/vaccines and www.cdc.gov/spanish/inmunizacion/index.html)

These sections of the CDC website contain information for the public, healthcare providers, and immunization partners on vaccines and immunizations. The CDC also created an immunization section written explicitly for parents. The vaccine pages are also available in Spanish.

Talking to Parents About Vaccines (www.cdc.gov/vaccines-children/hcp/conversation-tips/)

This webpage provides resources and highlights strategies for successful vaccine conversations with parents and caregivers. The page also includes an AAP form that can be used to document refusal of recommended immunizations.

AAP's Healthy Children (www.healthychildren.org and www.healthychildren.org/Spanish/Paginas/default.aspx)

The immunization section of this AAP website for the public contains information and articles on vaccines for children and teens. This website is also available in Spanish.

ACOG's Immunization for Women (www.immunizationforwomen.org)

This website, developed by the American College of Obstetricians and Gynecologists (ACOG), contains immunization information for both OB-GYNs and their patients.

# Animated Videos!

Get answers to commonly-asked questions about vaccines in our new "<u>Vaccines Explained</u>" YouTube video series!



Learn about how vaccines work, vaccine safety, and a vaccine's journey through the human body!

Be sure to check out our Spanish videos too!



**Check out our** 

## VPD eBooks!

Learn more about VPDs with our **Child and Teen**(English)(Spanish) & Adult (English)(Spanish)

eBooks.



Individual disease pages or the whole booklet can be printed and shared.



#### **Find Additional Resources At:**

https://vaccinateyourfamily.org/vaccine-resources/

## References

<sup>1.</sup> Centers for Disease Control and Prevention. (2024, May 2). Leading Causes of Death. Centers for Disease Control and Prevention. https://www.cdc.gov/nchs/fastats/leading-causes-of-death.htm

<sup>2.</sup> Centers for Disease Control and Infection. (2024, March). 2023 Provisional Pertussis Surveillance Report. Centers for Disease Control and Prevention; Centers for Disease Control and Prevention. https://www.cdc.gov/pertussis/downloads/pertuss-surv-report-2023\_PROVISIONAL.pdf

<sup>3.</sup> Centers for Disease Control and Prevention. (n.d.). Influenza-associated pediatric mortality. https://gis.cdc.gov/GRASP/Fluview/PedFluDeath.html

<sup>4.</sup> Centers for Disease Control and Prevention. (2023, February 8). Vaccine Effectiveness: How Well Do Flu Vaccines Work?. Centers for Disease Control and Prevention. https://www.cdc.gov/flu-vaccines-work/benefits/? CDC\_AAref\_Val=https://www.cdc.gov/flu/vaccines-work/vaccineeffect.htm

<sup>5.</sup> World Health Organization. (n.d.). Global immunization efforts have saved at least 154 million lives over the past 50 Years. World Health Organization. https://www.who.int/news/item/24-04-2024-global-immunization-efforts-have-saved-at-least-154-million-lives-over-the-past-50-years

<sup>6.</sup> Association of State and Territorial Health Officials. (2023, March 6). The Impact of Non-Medical Vaccine Exemptions on Childhood Vaccination Rates. https://www.astho.org/communications/blog/impact-of-non-medical-vaccine-exemptions-on-childhood-vaccination-rates/

