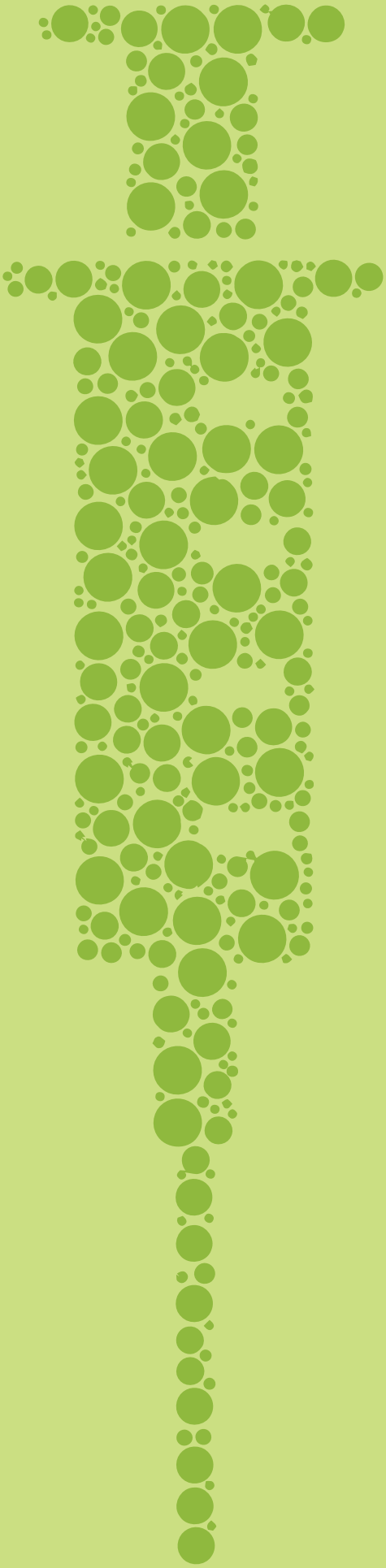
Engaging Families

A Healthcare Provider Toolkit

voices for vaccines

credible vaccine information for families, from families



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Introduction: Why you make a difference

Vaccines. Yup, we know a lot of you are sighing at the very word.

Vaccines have never been more important, but the conversations seem to be harder and harder to have with patients and families. Sometimes the path of least resistance can seem right, especially as healthcare providers have less time to spend with patients.

We get it. But in fact, a strong recommendation from a healthcare provider is the ***single most influential*** factor in someone deciding to vaccinate.

That's right, you're the secret sauce!

It's a lot of pressure, but we're here to help. We get how to talk to families because we are families.

In this toolkit, we help you understand what families want and need to know, how best to communicate with them, and tools to make it all much easier.

You're a health hero and the single most influential group of people when it comes to vaccines. We're excited to help you help your patients understand and support vaccines.

History: A short but spectacular history of vaccines

Vaccines are so commonplace today that we sometimes forget the awesomeness that is immunization. Fear not, we are going to give you the lowdown on the history of vaccines.

Most of us think about vaccines as a 20th Century science but it's been around for thousands of years. Did you know that variolation was recorded as early as the 2nd Century in China. The Egyptians were using variolation to protect people by the 13th Century and West and North Africa started using variolation in the 17th Century.

More than 100 years of science

Immunization, as we know it, is more than 100 years old. Louis Pastuer, the grand-father of microbiology, also created the very first lab-produced vaccine - in 1879! It was a vaccine to prevent a disease called chicken cholera.

But it was Edward Jenner who really advanced how we thought about vaccines. Jenner realized that exposure to cowpox (a virus similar smallpox but not serious) could protect someone from getting smallpox. During Jenner's time smallpox killed 10-20% of the population.

GROSS but TRUE

Variolation used a small pox scab from an infected person to help protect others from smallpox.

This was the earliest form of immunization.

Thankfully, immunization has evolved. Today's vaccines are much safer and more effective than variolation.

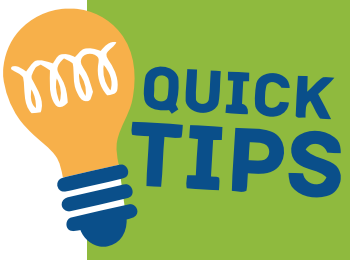
Successes that rocked our world!

Almost 150 years after Jenner's discovery, vaccines have changed the world as we know it including:

- **Eradicating smallpox from the face of the earth.**
  Smallpox was killing people as early as 1100 BC and remained a frightening and deadly disease for more than 3 thousand years. In just the 77 years before it was eradicated, it is estimated that smallpox killed half a billion people. But vaccines rewrote that history and today smallpox is no longer a threat.

- **Decreasing the number of children who die before their 5th birthday.**
  In 2015 Researchers looked at 149 national level health surveys that included 1 million children from 62 countries to see if vaccines reduced childhood death. What they found is one of the strongest cases for vaccines: when the children in a community are fully vaccinated, that community has a 24% decrease in deaths in children under 5 years old.

- **Preventing deadly diseases, EVEN cancer!**
  We often talk about the advances that medicine has made in treating cancer but what about preventing it altogether? Did you know that there are vaccines that do just that? The HPV vaccine targets high-risk Human papillomavirus strains that are responsible for almost all cervical cancers and linked to some throat, anal, and other cancers. Hepatitis B vaccines help prevent infections that lead to liver cancer.

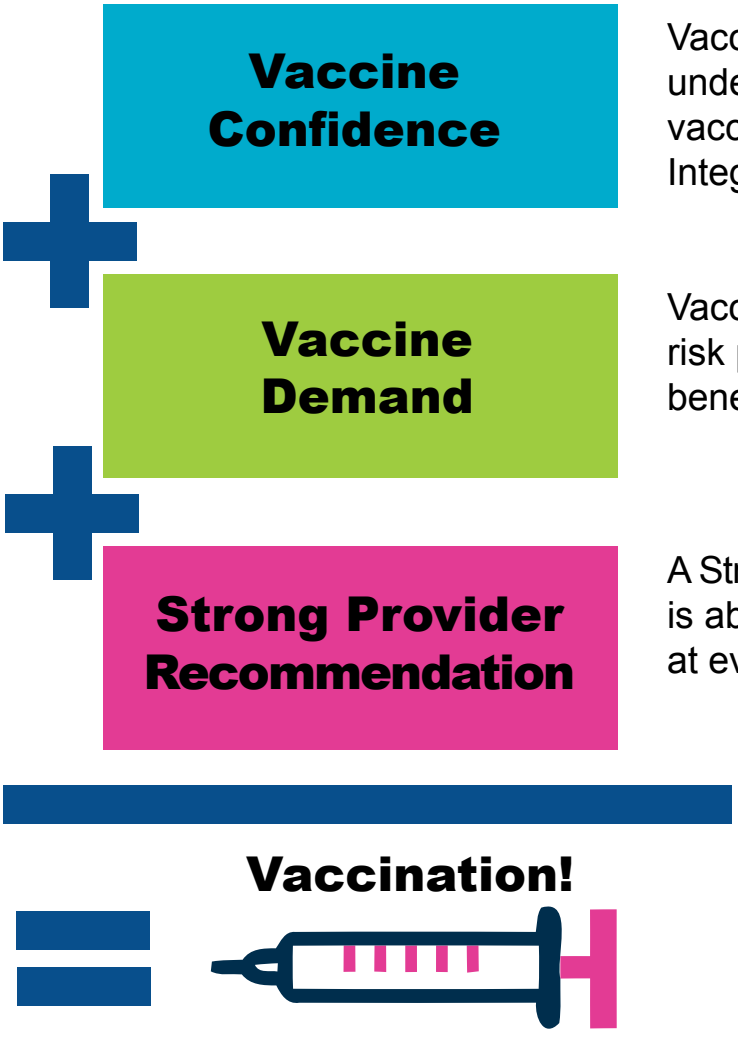


Some parents view HPV as a sexual disease and are reluctant to give their child the HPV vaccine at 11 years. Focus on the fact that the vaccine works best when given between 11 - 13 years.

Communication: What families need to know

The decision to vaccinate is much like a math equation. Someone needs to be confident in the vaccine, want the vaccine, and get a strong provider recommendation.

These three things added together almost always mean someone will choose to vaccinate.



Vaccine Confidence is about understanding the science, the vaccine development process Integrity and vaccine safety.

Vaccine Demand is about disease risk perception, vaccine risks and benefits, and removing barriers.

A Strong Provider Recommendation is about being a vaccine advocate at every patient encounter.

Increasing vaccine confidence

Vaccine confidence is largely about believing in that vaccines were developed with honesty and care and that they are safe. How can your practice increase vaccine confidence?

Be able to speak to the vaccine development process:

- Make sure your staff understands the rigor of the vaccine development process.
- Hang the vaccine development infographic in your waiting area and exam rooms (see VoicesForVaccines.org/resources).

Be knowledgeable about vaccine safety:

- The biggest safety issues tend to be around side effects and ingredients. Be sure you and your staff know the issues.
- Have handouts available to point patients and families to credible information.

Be able to explain vaccine science:

Some healthcare providers don't think families need to understand vaccine science but research shows this is what families are looking for and what contributes to vaccine confidence so...

- Be sure to be able to easily and understandably explain the science.
- Don't have the time? Send families to credible websites (shameless plug here - we have an entire science section on our website that was vetted by some of the top vaccine experts in the country, VoicesForVaccines.org/Science).

Make sure your staff are well informed, strong vaccine advocates.

It is self-defeating if a doctor advocates for vaccines, but a med tech or nurse gives conflicting opinions, particularly given they often have more time to spend with patients.

All your staff should be pro-vaccine because good healthcare workers understand and support health science. It's the business they are in after all. The last thing you want is for your staff to be sharing misinformation with patients!

If you have staff that don't support health science, make sure they have the resources they need to be educated on vaccines.

Helpful hints to build a pro-vax staff:

- Provide education to vaccine-hesitant staff
- Allow time for staff to engage in information and education opportunities for emerging vaccines and VPDs.
- Be clear about your expectation that all staff will be vaccine champions with families and patients
- Include interview questions about vaccine confidence in the hiring process
- Model vaccine positive behavior: Share you and your family's vaccination status. Have the senior nursing staff do the same.

QUICK TIPS

Well-informed previously vaccine hesitant individuals can be effective vaccine adocates. If you have hesitant staff help them be better informed so they can best advocate for your patients.

Increasing vaccine demand

Vaccine demand is generally about having accurate knowledge of the dangers posed by the disease, understanding the benefits of vaccination, and removing barriers to getting vaccinated.

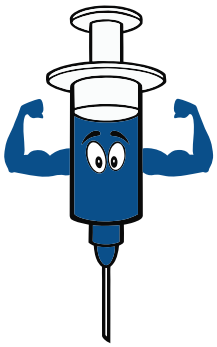
People do not have good risk perception.

Most vaccines have a one in 1 million risk of a serious adverse event. To put this in context, one-in-one-million is equivalent to:

- ONE single step in a journey of 568 miles
- ONE minute over the course of two years.

So one-in-a-million is a very small probability. Families and patients need to better understand the true risks of a disease compared with the small probability of a vaccine adverse event. Having a factual understanding of risks helps caregivers make a truly informed decision about keeping themselves and their families safe.

Understanding adverse events



Vaccines generally have a risk of 1 in 1 million doses of a serious adverse events. But what does that really mean?

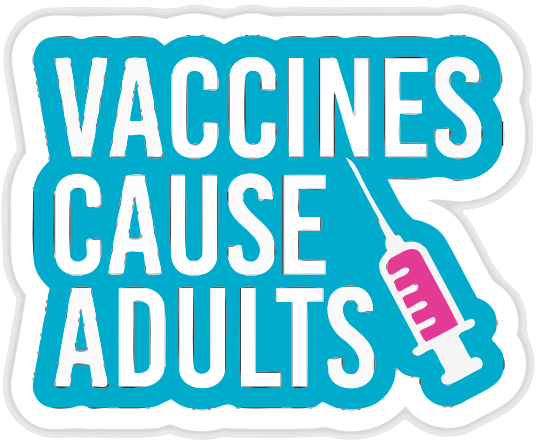
An “adverse event” is any health issue that happens after a shot or other vaccine. An adverse event might be truly caused by a vaccine, or it might be pure coincidence. It can be mild like some swelling at the injection site. Or it can be more serious, like trouble breathing.

It’s these more serious adverse events that are rare - 1 in one million. And they are usually treatable. So don’t let someone scare you with false information! Vaccines are very safe!

People don’t see these Vaccine-Preventable Diseases (VPDs), so they don’t understand how dangerous the diseases are.

We’ve all seen the pins and t-shirts thanking vaccines. Yes, they are pithy and sort of fabulously snarky. But they are also very, very true.

We need to help people understand that the only human



disease that has been eradicated (wiped from the face of the earth) is smallpox. Every other disease is held at bay by vaccinations.

So if we stop vaccinating, the diseases will come back.

What did the world look like before vaccines? It wasn't pretty. All kidding aside, a LOT of kids died. Here are some pre-vaccine facts:

- Before the measles vaccine, nearly everyone got measles and hundreds died from it every. Today, most providers have not even seen a case of measles because of vaccines!

- Before there was a vaccine for diphtheria, an average of 15,000 Americans would die from it each year. But thanks to vaccines, only 2 cases of diphtheria were reported to the CDC between 2004 - 2014.

- In 1964, before the rubella vaccine, an epidemic infected 12.5 million Americans, killing 2,000 babies and causing 11,000 miscarriages. Since 2012, though, there have only been 15 cases of rubella reported to the CDC. Thanks, vaccines!

Part of vaccine demand is just making it easy to vaccinate.

Use your EHR systems not only to remind caregivers to schedule appointments, but also to prepare them for the vaccines their children will receive and to point them to good information about those vaccines.

Ensure all your staff ask about vaccines at every visit.

Giving a strong provider recommendation

Most healthcare providers believe they give strong vaccine recommendations. But studies show that may not always be the case. For instance, during H1N1, only 38% of patients felt they received a strong vaccine recommendation for their children. Thirty-five percent of patients reported that healthcare providers did not provide any recommendation, and 5% of providers actually discouraged vaccination.

We can do better.

There are two great models to focus on when providing a strong recommendation. Together, they can instill confidence and drive demand for vaccines. The first model, SHARE, was developed by The Centers for Disease Control and Prevention (CDC). It is a highly effective, evidence-based recommendation model that provides tangible talking points:

SHARE the reasons why the vaccine is right for the patient given his or her age, health status, lifestyle, occupation, or other risk factors.

HIGHLIGHT positive experiences with vaccines (personal or in your practice), as appropriate, to reinforce the benefits and strengthen confidence in vaccination.

ADDRESS questions and any concerns about the vaccine – including side effects, safety, and vaccine effectiveness – in plain and understandable language.

REMIND families that vaccines protect them and their loved ones from serious illness and disease-related complications.

EXPLAIN the potential costs of getting sick, including serious health effects, time lost (such as missing work or school), and financial costs.

Use presumptive positive language. Research shows that presumptive positive conversations are more effective in positive behaviors than neutral or questioning conversations.

What does presumptive positive look like? It's stating "it's time to get your vaccine now" rather than asking "are you planning to get this vaccine." This works because the majority of us support vaccination and we relate to the way presumptive positive questions make vaccination seem like the normal course of action. Neutral or questioning approaches make us wonder if our choice needs to be examined.

Only delve into the "questioning mode" if someone answers a presumptive positive with "no" or "I don't know" type answers. Then, find out what their single biggest issue is that is stopping them from getting vaccinated.

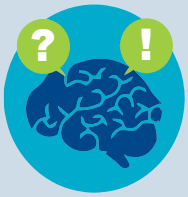
- **If it's access:** help make it easy to get vaccinated
- **If it's a lack of urgency:** help them understand the risks of going unvaccinated
- **If it's information:** offer to share understandable and credible information around their biggest concern (shameless plug here, we've got TONS of this on our website so send them to us!)

Where did vaccine hesitancy come from?

1998 Lancet paper claimed a connection between autism and vaccines but the study had MAJOR problems:

The conclusions were not based on statistics and the sample size was TINY (12 kids)

There was NO control group so it was impossible to determine any association between autism and the MMR vaccine



It was not based on medical records but on people's memory

It made vague conclusions that were not statistically valid

Scientists discredited the paper and the Lancet retracted it. But the damage was done. The era of vaccine disinformation was born.

Addressing vaccine hesitancy

When addressing vaccine hesitancy, use the 4-A approach. It helps families feel respected and heard, and empowers them to make positive health decisions:

ASK "What is your main concern?"Encourage the patient to be specific and name their hesitancy."What is the one thing that concerns you most…can you tell me more about it?"

ACKNOWLEDGE Recognize that the person you're talking to already has knowledge. "It's clear you've really looked into this."

AFFIRM That it's ok to have questions. "That's a great question, I heard that too so I looked into it."

ANSWER Get permission to share some facts. "Can I share with you the facts…" OR "Can I get you some credible sources so your research helps you make an informed decision."

Be pro-vax: low-touch ways to be a pro-vax office

Increase communication while families are in the office by:

- Having printed handouts and posters available in waiting rooms and exam rooms (we've got you covered, check out our website resources section).
- If you have a TV or screen in the waiting room, consider some vaccine information slides for the display.

Increase communication about vaccines between appointments:

- Use EHR reminders
- Email or text reminders with links to VFV vaccine information and fact sheets
- Messages on the bottom of invoices

We're here to help: super cool tools & resources

We've developed some great resources to help you help your families and patients. The Voices for Vaccines Resource section has downloadable fact sheets, mobile apps, and other cool things to help you be a true vaccine advocate. Check back frequently. We're continuing to update this section!

www.VoicesForVaccines.org/Resources

Pages 23 - 26 of this guide also provides a quick reference guide for specific disease and the vaccines that prevent them.

Vaccine Overview: Development & Safety

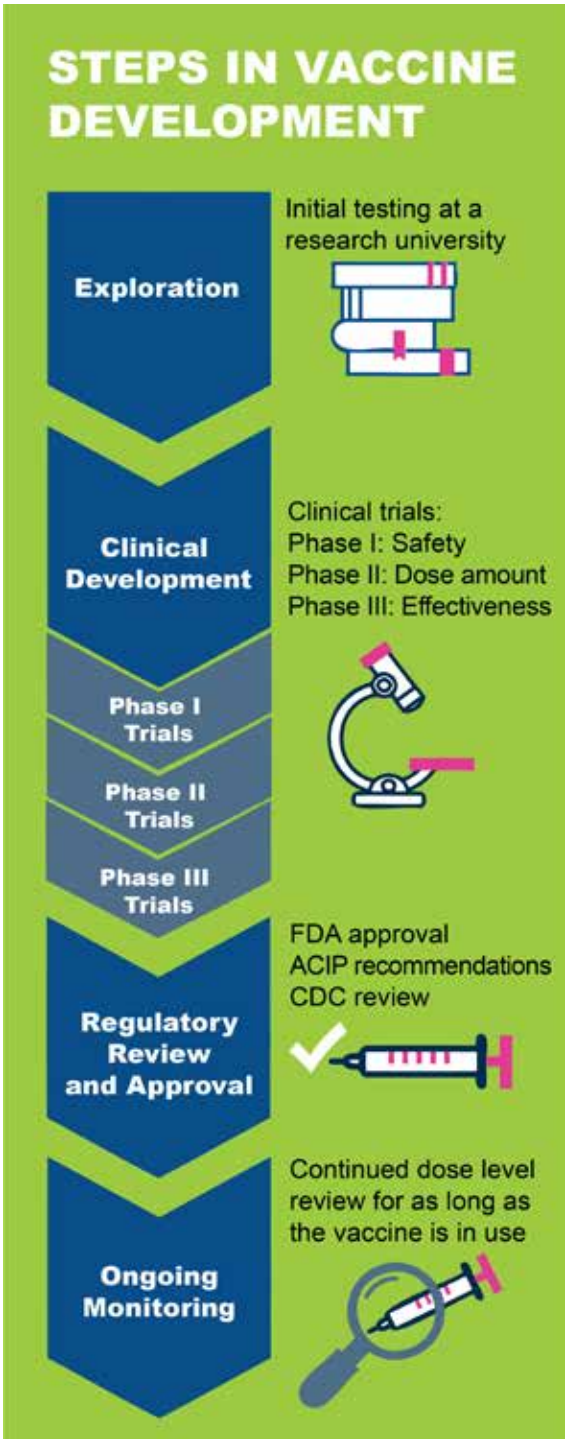
We know that most healthcare providers have lots of medical information to keep up-to-date on and vaccines are just one small piece of information. Many providers know the facts about vaccines by heart. For other providers who don't regularly have vaccine discussions with their patients, it can be tough to feel like you've got all the most effective talking points. So here are some fast facts to help you.

Vaccine Development

Vaccine development is a closely monitored and rigorous process. All vaccines, even accelerated vaccines, must adhere to all the safety and ethical protocols. Important things to know about vaccine development:

- Vaccines have been studied for more than 100 years.
- Vaccine development is NOT started from scratch - It builds on a strong foundation of what is already known to work and be safe
- Scientists understand short and long term side effects because:
- 99.99% of short-term side effects found in several weeks of vaccination
- Most long term side effects are found in ~45 days of vaccination

Vaccines are literally the most researched and monitored health interventions in medicine. You can be confident in their effectiveness in preventing dangerous diseases AND their safety.



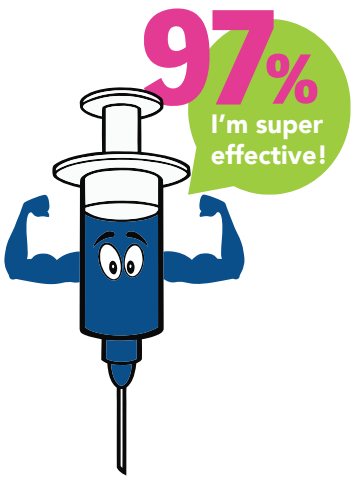
Vaccine Effectiveness

Vaccines have single handedly saved billions of lives. Need proof? Consider measles, one of the most contagious disease on earth.

- Measles is so contagious that if one person with measles is in a room with 10 unvaccinated people, 9 of them will get sick.
- In 2019 alone, a quarter of a million people died of measles.
- During the US 2018-19 measles outbreak 23 people died, most were preschool children.

Did you know...

Vaccines prevented at least 10 million deaths between 2010 and 2015 and saves about 42,000 lives in the U.S. every year.



The good news?
The measles vaccine works! When children get both doses of the measles vaccine 97% of them will not get measles.

The bad news?
The U.S. actually eliminated measles in 2000 but because of vaccine hesitancy, cases have been increasing year by year. During the US 2018-19 measles outbreak, there were cases in 30 states – 23 people died (all unvaccinated), most were preschool children.

Measles is not the only disease that can be brought under control by vaccines. It was a vaccine that finally brought the 2014-15 West African Ebola outbreak under control. For as frightening as Ebola was, just five years later COVID-19 made the world stand still. As of August 2021, 203 million people in the world have gotten COVID-19 – but vaccines are on the scene and as more people get vaccinated, fewer are dying from COVID.

Vaccine Safety

Vaccines are some of the most researched medical interventions on earth. We have been researching vaccines for more than 100 years. And billions of children have been safely protected from serious diseases in that 100 years.

By the time a vaccine is approved and at your doctor or pharmacy it has gone through a rigorous process to make sure it works and is safe. This process can take years and thousands of hours of scientific study. It includes:

Clinical Trial Data: There are usually thousands of people enrolled in clinical trials so there is a LOT of data focused on safety. For instance, Pfizer enrolled 43,661 people in its COVID-19 vaccine clinical trial.

FDA Review and Liscensure / Emergency Use Authorization: If a vaccine is found to be safe and effective during the clinical development phase, it is reviewed by the Food and Drug Administration (FDA) for use in the general public. The FDA will only approve a vaccine if it is safe, effective, and the benefits outweigh any risks. Almost every country in the world has an equivalent to the United State's FDA, which means vaccine data are reviewed by dozens of regulatory bodies around the world for safety and effectiveness.

ACIP Review and Guidance: Once a vaccine is licensed and approved for use, the Advisory Committee on Immunization Practices (ACIP) reviews all the data and provides guidance on how a vaccine should be used.

ACIP (Advisory Committee on Immunization Practices) is an independent group of vaccine experts from top universities, research institutions, physician academies, and hospitals who evaluate the data to develop the recommendation for who should get the vaccine.

After the ACIP makes its recommendation, the Director of the Centers for Disease Control and Prevention (CDC) reviews the data and ACIP's recommendation. If the director approves the recommendation, the vaccine is added to the U.S. vaccine schedule.

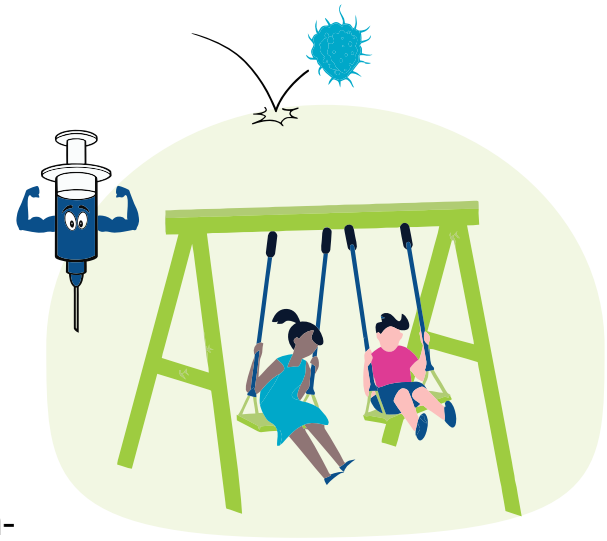
Ongoing Dose-Level Monitoring: This is the monitoring that takes place after a vaccine is administered and captures any unusual side effects or adverse events. If anything is found, the FDA and CDC evaluate the findings to ensure there isn't a problem. There are four systems that do this:

- CISA
- VAERS
- Vaccine Data Safety Link
- VSafe (currently only for COVID-19 vaccines)

The truth is that your child's scrape from a fall on the playground is probably a bigger deal for their immune system than a vaccine. That's because today's vaccines use such a small amount of antigen (what helps your body create an immune response).

Our 100 years of vaccine research has made us really good at vaccine development.

Thirty years ago, vaccines protected against eight diseases and contained more than 3,000 viral and bacterial proteins. Today, vaccines protect against 14 diseases, using only 305 proteins. So for those that are worried that more vaccines means more work on a young immune system, have no fear - we're using 10% of the proteins we used to give to offer MORE protection.



Win-Win!

That scrape from the playground? It introduces FAR more antigens into your child's body than vaccines. We encounter antigens everywhere - in our food, in the air we breath, and in the surfaces we touch. It's not a problem because that is what our immune system is designed for. But remember, sometimes germs can take hold in our bodies before our immune systems can work their magic. This is where vaccines come in.

So let your child play on the playground. But also get them vaccinated!

Fast facts about emergency vaccine development

One of the biggest concerns we hear when an emergency vaccine is rapidly development is that it happened "too fast". No so, and here's why:

Vaccines have been studied and develped for more than 100 years. Scientists do not need to start from scratch when working to quickly develop a vaccine.

In emergencies, the number of staff and amount of resources put to vaccine development is signficantly increased. This helps scientists get answers faster.

In emergencies, researchers limit what they study to safety and efficacy (does the vaccine work) in order to get a safe and effective vaccine as quickly as possible. This saves lives. Other things like how the protection works or how long it lasts is learned as the vaccines are rolled out.

Strength in numbers

The COVID-19 Vaccine Phase III clinical trials had tens of thousands of participants enrolled:

- Moderna:28,000
- Pfizer: 43,000
- J&J (Janssen): 45,000

This is ***far more*** participants than regularly developed vaccines have, and means that the safety data is some of the most robust data presented to the FDA for a vaccine.

If you look at the history of vaccines, you know that virtually all long-term adverse effects of a vaccine occur between 15 and 30 days after you get the dose – 45 days at the most.

Dr. Anthony Fauci
Director, US National Institute of Allergy and Infectious Diseases

QUICK TIPS

Make sure your staff knows the facts about long term side effects so they can be advocates for facts and science!

The disease	The vaccine
Chickenpox (Varicella): A highly contagious disease that caused 4M cases a year in the U.S. before vaccines. Severe complications include: • pneumonia (infections of the lungs), • encephalitis (swelling of the brain • sepsis (blood infection)	• 2 dose series: 12-15 months and 4-6 years • 90% effective when both doses are received • The vaccine is very safe. It has been in use for 30 years and millions of children have been safely vaccinated.
Diphtheria: A serious viral infection. In children under 5 years old, 20% will die. It is rare in the U.S. because of the DTaP and Tdap vaccines.	• 5-dose series: 2, 4, 6 15-18 months and 4-6 years • 90% effective when all doses are received • The diphtheria vaccines are very safe and have been in use since the 1940s. Millions of children have safely received them.
Flu (Influenza): Seasonal influenza is responsible for about 36,000 deaths in the U.S. every year.	• Seasonal vaccine (every year). • Effectiveness varies from year to year, but even if a vaccinated person does get the flu, it will be a more mild case. • The flu vaccines are very safe. The first flu vaccine was licensed in 1945 and millions of children and adults have safely received one.
Hepatitis A: A serious viral disease that can be painful and cause ongoing illness for 2 - 6 months or more.	• 2 dose series: 1st 12-23 months, 2nd 6 months after first • 94% effective when both doses are received • The Hep A vaccine was developed in 2000. It is very safe and millions of children have safely received one.
Hepatitis B: Chronic Hep B can cause cirrhosis of the liver and liver cancer. About 90% of infected infants will develop chronic Hep B compared to only 2-6% of adults.	• 3 dose series: birth, 1 month, and 6 month • 80-100% effective when all doses are received. • The vaccine was introduced in the US in 1982. It is very safe and millions of children have safely received one.

The disease	The vaccine
HIB: A bacterial infection that causes a wide range of symptoms, from mild ear infections to life-threatening blood, brain, lung, and spinal cord infections.	• 4 dose series: 1, 4, 6, and 12-15 months • 95% effective after 2-3 doses • The highly effective conjugate vaccine was introduced in the US in 1987. It is very safe and millions of children have safely received the Hib vaccine.
HPV: A virus that can cause cervical and other types of cancers.	• 2 doses (6-12 months apart) if a child gets it on time, at 11-12 years of age. 3 doses for people 16 and older. • The HPV vaccine is 99% effective at preventing HPV-type pre-cancers linked to 70% of cervical cancers. • HPV vaccines were introduced in 2006 and thousands of children have been safely protected from HPV since then.
Measles: One of the most contagious viruses known to people. About 1 in 16 children with measles will get pneumonia, the most common cause of measles-related death in children.	• 2 doses at 12-15 months and 4-6 years • MMR vaccine is 97% effective in preventing measles • The measles vaccine was first introduced in 1963 and the MMR vaccine was introduced in 1971. Millions of children have safely received these vaccines.
Meningococcal: Bacterial Meningitis can become very serious very quickly: 10 - 14% of people with meningitis will die 11 - 19% of people with meningitis will have permanent disabilities.	• Meningococcal conjugate vaccine: 2 doses at 11-12 and 16 years of age • Meningococcal B vaccine: 1 dose at 16-18 years • Together, these vaccines are 95-90% effective in preventing meningococcal disease. • The meningococcal vaccine was first developed in 1974 with a quadrivalent version (protecting against 4 types of meningococcal) in 1981. Millions of children have safely received the vaccines.

The disease	The vaccine
Mumps: A serious viral disease. One in 7 children with mumps will develop viral meningitis, which is life-threatening. It can also cause infertility.	• 2 doses at 12-15 months and 4-6 years • MMR vaccine is 88% effective in preventing mumps • The vaccine was first introduced in 1967, and the MMR vaccine was introduced in 1971. Millions of children have safely received these vaccines. •
Polio: Infects a person's spinal cord and can cause permanent paralysis. If the lungs are paralyzed, polio can cause death. Because vaccines have been so effective in preventing polio in the U.S., many families and providers have never seen polio and think it is no longer a threat. But polio isn't eradicated yet; the world is VERY close, but we need to continue to vaccinate all children until then, so polio does not come back.	• 3 doses: 2, 4, and 16-18 months • When all 3 doses are received, the vaccine is 99 - 100% effective. • The polio vaccine was first introduced in 1955. Billions of children have safely received the polio vaccine which is why polio is close to becoming the 2nd disease we eradicate. •
Pneumococcal: Pneumonia is an infection that causes the lungs to fill with fluid. Bacteria, viruses, or fungus can cause it. Bacterial and viral pneumonia can be spread from person to person. The vaccine covers certain strains of bacterial streptococcus pneumoniae.	• Pneumonia (PCV13)Vaccine is a 4-dose vaccine (2, 4, 6, and 12-15 months) • When all 4 doses are received, • the vaccine is about 75% effective • The first pneumococcal vaccine was introduced in 2000, the PCV13 vaccine was introduced in 2010. Millions of children have safely received these vaccines
Rotavirus: Highly contagious viral infection that causes diarrhea and abdominal pain. Dehydration, particularly in young children,is a serious side effect and, if left untreated, can cause death.	• 3 dose series: 2, 4, and 6 months • 75% effective when all doses are received • The 2nd generation Rotavirus vaccines were introduced in 2006 and 2008. Million of children have safely received these vaccines

The disease	The vaccine
Rubella: Serious viral disease. 80% of babies born to mothers who got rubella will have birth defects.	• 2 doses at 12-15 months and 4-6 years • MMR vaccine is 97% effective in preventing rubella • The rubella vaccine was first introduced in 1969 and the MMR vaccine was introduced in 1971. Millions of children have safely received these vaccines.
Tetanus: A very serious bacterial disease. Even with treatment, 10-20% of people with tetanus will die.	• 5-dose series: 2, 4, 6 15-18 months and 4-6 years • 90% effective when all doses are received • The first tetanus vaccines were introduced in 1924. Millions of children have safely received them.
Whooping Cough: A serious bacterial infection that causes pneumonia, slowed or stopped breathing, convulsions. Half of babies who get pertussis will need to be hospitalized.	• 5-dose series: 2, 4, 6 15-18 months and 4-6 years • 90% effective when all doses are received • The first whooping cough vaccines were introduced in the 1930s. Millions of children have safely received them.

YOU MAKE THE DIFFERENCE

voices for vaccines
credible vaccine information for families, from families

www.VoicesForVaccines.org