



# A Medical Provider's Guide







# Welcome!

On behalf of the Northwest Portland Area Indian Health Board (NPAIHB), we invite you to use this guide as you work to build vaccine confidence in the communities you serve. This guide was created to support health care providers serving Tribal communities utilizing lessons learned from our Boost Oregon partners and experiences relayed by Northwest Tribes.

It is the intention of the authors to provide a holistic and culturally adapted way of increasing vaccine confidence in your community. We thank our Tribal community reviewers, our staff, and Boost Oregon.

Laura Platero, (Navajo), JD

Executive Director,

**NPAIHB** 



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### **Acknowledgments**

This guide was adapted from the Boost Oregon Provider Guide. The project was supported by and adapted with inputs from Tribal communities across the Pacific Northwest. With deep appreciation for the guidance and wisdom from those who serve in Indian Country, this guide is offered for those who wish to advance the health and wellbeing of all.

#### Cultural Adaptation Process for Native Boost Provider Guide

The Native Boost project through the Northwest Portland Area Indian Health Board (NPAIHB) convened a Tribal Advisory Committee on Immunizations (TACI) of Tribal members from Oregon, Idaho, and Washington states to advise and steer a cultural adaptation of the Boost Oregon Provider Guide to use in American Indian/Alaskan Native (AI/AN) communities. This committee represented both urban Native communities and those Tribes on reservation. Additional input was gratefully accepted from non-Native allies who have been serving for decades in healthcare settings and across Indian Country. We are truly thankful for the contributions of all who make this work possible every day.

#### **Guiding Values**

Cultural values, stories, and traditions have inspired the creation of this guide. Connection, community, intergenerational wisdom, and caring for all beings are the foundation of all work we offer to those across Indian Country and beyond. We all are connected and this work has power to transform in healing ways when we lean on our cultural values.

#### **Purpose**

The original Boost Oregon guide was created to help providers build confidence around vaccination conversations with families. A need was identified to combat some of the wide-spread vaccination misinformation campaigns that were started and spread rapidly throughout communities. Parents found themselves struggling to identify truthful and transparent information on childhood vaccines and providers found themselves wondering how to help. Boost Oregon helped to fill that need by answering the common questions that parents have and helped providers tailor messages that would resonate with families.

The Native Boost guide builds upon that important work and expands into needs specific to Indian Country. Although this guide is tailored to an Indigenous audience, we feel the guiding themes of trust-building, story-telling, transparency, and deep listening will be meaningful to all audiences.

Those listed below contributed to the adaptation of this guide:

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Joel Amundson, M.D., F.A.A.P., Nadine Gartner, J.D., and Jay Rosenbloom, M.D., Ph.D., F.A.A.P., are the authors of the original Boost Oregon provider guide. Diana Tung designed it and created original graphics. Bob Land proofread the guide. Many thanks to the Spirit Mountain Community Fund and the hundreds of individual donors who provided funding for this project.

To download an electronic copy of the original Boost Oregon provider guide or to obtain additional hard copies, please visit <a href="https://www.npaihb.org/native-boost/">https://www.npaihb.org/native-boost/</a> and for more information, please contact Boost Oregon at <a href="mailto:info@boostoreqon.org">info@boostoreqon.org</a>.

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#### Introduction

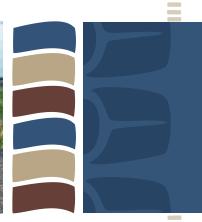
You probably picked up this guide because you would like to increase vaccine confidence among your patients and parents. You may be seeking new strategies to form a stronger partnership with your patients because you feel discouraged that even with your education and professional experience, your advice is weighed against misinformation that parents read online or hear from their peers. During wellness visits, you may desire to maximize the time you have available to effectively discuss vaccine plans and serve as a trusted resource to address their concerns.

Communication skills are important for any health intervention and key to promoting the wellness of all communities. This guide can be used to build basic communication skills around vaccine safety and to increase vaccine confidence. This guide was created with healthcare providers in mind and offers a framework for building vaccine confidence among the patients, parents and the Native communities we serve. The guide offers tips for communicating effectively with parents, gives ways to describe scientific concepts to a nonscientific audience, and suggests answers to questions frequently asked by parents.

In addition to these guides, Boost Oregon and Native Boost host comprehensive websites (<a href="www.boostoregon.org">www.boostoregon.org</a> and (<a href="https://www.npaihb.org/native-boost/">https://www.npaihb.org/native-boost/</a>) with resources for medical providers. We offer seminars for providers and lead community workshops for parents. Contact us with your particular needs and we will work with you to educate your patients about vaccines for children.

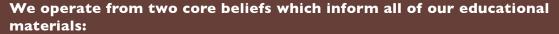






### **About Boost Oregon and Native Boost**

Boost Oregon is a regionally and national recognized parent-led organization with the valuable contribution of parents and medical providers that provides evidence-based education about the safety and benefits of vaccines to all Oregonians. Native Boost is a program that was developed in collaboration with Boost Oregon, Indian Health Service providers and the Northwest Portland Area Indian Health Board, who share the same goal as Boost Oregon to give our children, our patients, and for Native Boost ...every Native child the best chance at a healthy life.



- 1. Parents want to make the best decisions for their children's health, and
- 2. Parents make the right decisions when presented with evidence-based information

# Why Are Parents Hesitant to Vaccinate Their Children?

As providers passionate about caring for the patients we serve, it can feel concerning when a family chooses not to vaccinate their children. Above all, it is important to compassionately understand these choices so that we may work together for the good of all of our community members. Below we will discuss some of the themes we have found in our work with families. Though this is not a comprehensive list of all the possible objections to vaccination, we hope it will provide a framework for how to communicate around important topics.

Any information that supports a gut feeling not to vaccinate (even if it is unfounded) may trigger other cognitive biases, including confirmation bias and choice-supportive bias, to cement a decision not to vaccinate. For a comprehensive list of the many biases that affect our decisions, often without our being aware of them, type "cognitive bias codex" into your search engine. To read more about this topic, checkout Predictably Irrational, Revised and Expanded Edition: The Hidden Forces That Shape Our Decisions by Dan Ariely.

Cognitive biases influence all of us in different situations and in different ways. No one is immune from cognitive biasesthose thoughts that do not line up with rational judgment. It is important to note that cognitive biases do not indicate that someone is irrational- it merely indicates that actions may not line up

with thoughts and beliefs. Parents who have chosen not to vaccinate their children may harbor powerful cognitive biases that can lead to responses that may seem counterintuitive to what we know every parent wants- the safest, healthiest, and best lives for their children. We as providers can help untangle these confusing, scary, and often contradictory messages that parents may have been exposed to and which may influence their choice not to vaccinate.



Some parents may report fears of side-effects of vaccines while others might mention what providers know to be a spurious connection between autism and vaccines. Still others state that they want to live a natural lifestyle and they do not see vaccines as consistent with that goal. Regardless of the motivation not to vaccinate, the team of healthcare providers must present clear, consistent, and transparent information so that families can make informed decisions. There is no singular reason why families choose not to vaccinate, so a one size fits all approach is not appropriate. When we work toward a culture of cooperation and community, we can set the stage for open, honest, and respectful two-way communication. Only then will we be able to provide the information that patients and parents need to help them make the healthiest possible decisions.

Distrust of certain institutions underscores our hesitancies to vaccinate. Most pro-vaccination messaging comes from the federal or state governments, which parents may not trust to have their babies' best interests at heart. They may assume that the governments' interests in decreasing healthcare costs and reducing mortality rates do not support their personal interests, such as natural health. Some parents view pharmaceutical

moneymakers for greedy corporations.

How can you handle these concerns? First and foremost, we want to know that our providers listen to our concerns and share our healthcare goals. If we feel heard and have a shared goal at heart, it is much easier to trust the facts when you present them.

companies with skepticism and believe that vaccines are merely



**Nadine** Portland, OR











## **Communicating with Your Patients**

You'll find it easier, more effective, and more meaningful to talk with families about vaccines in the context of their goals and values. Here are some basic tips when communicating about vaccines. First learn about the families' goals and values. It may take more than one clinic visit or phone call to establish trust and good communication. After trust has been built, communicate the ways in which vaccines help families accomplish their goals and align with their values. Both your patients' experience and your own as a provider will be improved when mutual respect has been established. When we take the time to listen and provide the guidance that patients and families need, most tend to make the choices that align with their values- in this case, the choice to say yes to vaccination.

Empathy and active listening are critical tools for communicating with patients about vaccines. Here we will focus on a few concrete things that you can do to improve your communication to increase vaccine confidence with your patients.

When starting a conversation about vaccines with your patients, use positive phrases and messaging such as: "We have some vaccines to do today," or "Billy is due for vaccines today." You can then follow up with: "Do you have any questions about these vaccines?" or "Would you like information about these vaccines?" This language expresses that vaccines are a routine part of pediatric preventive care and that the majority of families do choose to vaccinate.

If parents express distrust or hesitancy about vaccines, you may try the following:

- Pull up a chair and sit with the parents. Sitting down and literally seeing eye to eye
  tells the parents that you are actively listening and not rushing out the door to the next
  patient.
- While making and maintaining eye contact, ask parents about their concerns. Do not
  interrupt them. Give them an opportunity to fully express themselves so that they know
  you are taking them seriously.
- Repeat back what you have heard: "I understand that you think vaccines aren't safe," or "I hear your concern that vaccines cause autism." Doing so ensures that you understand concerns and your responses will speak directly to them.
- Don't respond to a feeling with facts. Parents may feel anxious or even scared about vaccinating their children. Acknowledge their feelings ("I hear that you're nervous about Sally's shots today") and give them time to fully express themselves.

- Pause before responding. Make sure parents have finished speaking before you begin so they feel heard and valued.
- In your response, keep the patient at the center of everything. "I am here to care for Sally, and I want the best for her." For ways to respond to specific questions from parents, see Addressing Specific Issues (p 7).
- Ask parents for feedback: "How do you feel about that?" or "What do you think?" Give them an opportunity to learn from you and to ask more questions if necessary.

More generally, focus on the child's (and parents') quality of life. Some parents think because death from vaccine-preventable diseases is rare in Oregon, their choice not to vaccinate will have no consequences. Help parents understand that although it's unlikely that their child would die from one of these diseases, their quality of life would decrease due to missed school and work days, multiple medical interventions with possible hospital stays, and long-term detrimental health effects.

Don't try to scare parents with photographs or videos of children suffering from disease; that will only heighten their anxiety and increase their fears.

We want parents to feel good about choosing to vaccinate their children because they believe it's the right decision, not because they are frightened into doing so.

#### **Conversational Tips**

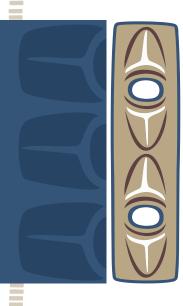
Parents may appreciate hearing about our personal experiences with childhood vaccination. If you are a parent, aunt, uncle, or godparent, talk about important children in your life and why you chose to vaccinate them or to advocate for vaccination:

"On a personal level, I am confident in the safety of vaccines, and I vaccinated my kids on the recommended schedule."

You can also refer to your professional experience, being careful not to dismiss parents' personal experiences:

"I can understand your concern. Much of my comfort comes from the fact that I have been administering vaccines for over a decade now, and I have the opportunity to closely monitor the health of thousands of children throughout their childhood. I see firsthand children thriving who receive all their vaccines on time. Children who are unvaccinated are at a greater risk for severe health complications if they become infected with a vaccine-preventable disease.

The available safety data we have for vaccines is consistently better than the safety data we have for nearly any other medical intervention: I personally feel a sense of ease and comfort administering a complete round of vaccines."

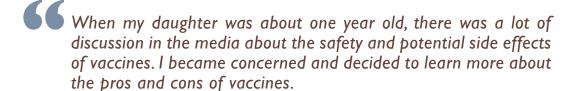








Finally, be patient. Do not rush conversations with parents. It is often necessary to span the conversation over several appointments, or to schedule additional appointments to discuss vaccination. As your relationships with parents grow, so will their trust in you and capacity to absorb evidence-based information you provide.



In reviewing reputable resources and discussing my concerns with my pediatrician, I found the advantages far outweighed any potential side effects, and the question then became, how could I not vaccinate my child? As any reasonable parent would, we want to protect our children.

Vaccines are the best preventable care we have to protect against disease, and I fully welcome and endorse all vaccines now.



**Shona** Ashland, OR



### **Addressing Specific Issues**

This section sets forth frequently asked questions from parents and provides example responses. Above all else, listen to parents and take time to understand concerns in order to ensure you're answering their particular inquiry.

For quick reference, the questions considered are the following:

- What are vaccines and how do they work?
- We do we need to vaccinate against diseases we don't often see in Oregon?
- Are vaccines safe?
- Are ingredients in vaccines safe?
- If vaccines are safe and necessary, why all the fuss?

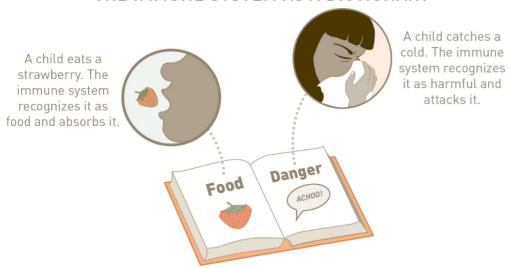
- Isn't it better to catch a disease "naturally"?
- Aren't vaccines just moneymakers for pharmaceutical companies?
- Can vaccines cause autism?
- Can I space out my child's shots?

#### What are vaccines and how do they work?

Vaccines help our bodies identify what infections look like so the immune system can use its natural defenses to treat them.

A useful analogy is to imagine the immune system as a dictionary. For every substance our bodies encounter, the immune system records a definition and an action. The definition is the description of the substance. The action tells the body what to do with the substance, like absorb or attack it.

#### THE IMMUNE SYSTEM AS A DICTIONARY



Now, apply that dictionary analogy to vaccines. A child is born with blank spaces instead of definitions and actions for what to do with serious childhood diseases. When a child is vaccinated, the immune system has already defined what a disease looks like and knows to attack it. If and when the child encounters the live disease, the immune system will be immediately ready to fight it and prevent serious illness or permanent harm.

# Why vaccinate against diseases we don't often see in our community?

Vaccines have been so successful that most parents these days have never encountered serious childhood diseases or witnessed their devastating effects. As a result, some parents may think vaccines are no longer necessary.

#### THE COMMUNITY GARDEN



When vaccination rates decrease, diseases become more common in our communities. Analogize to a community garden filled with healthy vegetables and beautiful flowers. In addition to watering the plants and mulching the soil, volunteers must weed regularly. If many volunteers show up and remove all the weeds, they may decide the number of weeds has dropped so much that no more volunteers are necessary. Without regular weeding, weeds grow uncontrollably and threaten the vegetables and flowers. The garden then needs to bring back its weeding volunteers.

By going back and forth with too many or too few volunteers, the garden gets caught in a never-ending cycle. The better alternative would be to determine the right number of volunteers needed to keep weeds at an acceptable level. If we stop vaccinating because we don't see a particular disease in our community, that disease will return, just like weeds return to an untended garden.

#### Are vaccines safe?

Parents may fear that vaccinating their children will cause short-term or permanent harm. They may think risks outweigh benefits or that providers are not representing fully the side-effects (and they may ask to read the complete insert that comes with each vaccine).

It is important to assure parents that vaccines are some of the most tested and closely monitored medicines we take. Talk about your comfort level with vaccine safety. You would not vaccinate yourself and/or your loved ones if you had safety concerns. If you have children in your life whom you vaccinated personally or advocated to be vaccinated (your own children, nieces or nephews, godchildren, etc.), talk about that experience and how you felt confident with that choice.

At the same time, be honest with parents and acknowledge that vaccines, like all medical interventions, can cause harm. Certain vaccines may cause an allergic reaction and some previously used vaccines had unintended side effects. The original rotavirus vaccine or a vaccine for H1N1 flu in the 1970s were pulled off the market and replaced with better, safer vaccines when issues were reported.

Note that no vaccine recommended for use has been found more harmful than the disease it is meant to protect against.

#### Are ingredients in vaccines safe?

Parents may have concerns about specific ingredients in vaccines, like mercury or aluminum. Mercury is a heavy metal and parents may be familiar with methyl mercury, commonly found in fish and pollution, which has potential to accumulate in the body and cause harm. The mercury-containing molecule that is no longer in vaccines (thimerosal), consisted of ethyl mercury, which is much more easily excreted and does not accumulate like methyl mercury.

# HOW MUCH ALUMINUM WILL A BABY CONSUME IN THE FIRST 6 MONTHS?



Nevertheless, parents feared thimerosal because of its association with mercury, and several people blamed it for the rise of autism in the 1990s. While no evidence ever found thimerosal to be harmful, it was removed from all routine childhood vaccines in 2001. Since then, studies have found no association with autism. Further, despite the absence of thimerosal, autism rates have not decreased after 2001. Though Denmark removed thimerosal from vaccines in 1992—a decade before the U.S.—autism rates in Denmark continued to rise at the same pace as autism rates in the U.S. during that period. Clearly, some other factor is responsible for increased rates of autism.

Once thimerosal was removed from vaccines, concerns about another ingredient aluminum—intensified. Aluminum is a light metal and the third most abundant element in the earth's crust. Aluminum is in the company of other common elements like oxygen, silicon, iron, calcium, sodium, potassium, etc. None of these ubiquitous elements are toxic to our bodies at reasonable levels. If they were, we would not survive on this planet. Of course, any element, including any of the ones above, can be toxic to us if the concentration is too high.

Many people wonder if the amount of aluminum in vaccines is high enough to pose a risk to health. The answer is no. In the first six months of life, a baby receives about 4 milligrams of aluminum if she gets all of the recommended vaccines. However, during the same period, if breast/chest\* fed human milk³, she will ingest about 10 milligrams of aluminum, 40 milligrams if fed regular formula, and up to 120 milligrams if soy formula fed. Although the body absorbs significantly less aluminum orally than via injection, comparing exposure rates helps parents understand that children's bodies regularly process aluminum. Our bodies contain aluminum at rest,⁴ and samples taken from preterm infants before and after receiving their two-month vaccinations (~1 mg aluminum) found no significant change in levels of urinary or serum aluminum.⁵ Most importantly, not a single study has ever found evidence of harm from the quantity of aluminum or other ingredients currently contained in childhood vaccines.

For information on other vaccine ingredients, visit vaccine.chop.edu.



#### If vaccines are safe and necessary, then why all the fuss?

It can be confusing for parents to sort through the sea of information online and within their communities. Encourage parents to discuss concerns with you, the expert.

It may also be useful to help parents learn to sort through the overwhelming amount of information online. Specifically:

- Information based on sound scientific study will usually be endorsed by groups or institutions dedicated to science, like professional organizations or universities. This should include peer-reviewed studies.
- A good health website should be transparent and show who is responsible for the site and provide a way to contact the webmaster.
- Look to see if there's a specific agenda. If most or all of the articles on the website are one-sided, there's a good chance that it's not telling the whole story.
- Beware of suggestions of financial "conspiracies." There is a robust network of honest scientists without financial ties to industry who monitor vaccine studies. The ACIP, CDC, AAP, and AAFP meet every four months to review the safety of vaccines.6 In fact, vaccines create very little profit for pharmaceutical companies.
- Media attention does not necessarily mean a claim is true. Parents may see a celebrity
  advocate for or against something, but it is important to see what experts in the field
  have to say.

# When evaluating a particular claim or study, know that an honest perspective is a balanced one.

Legitimate studies will be transparent with all findings- even unexpected ones- and will include all relevant factors or variables. When in doubt, encourage parents to plug "debunk \_\_\_\_\_ (insert relevant claim)" into a search engine. Chances are, if a particular claim does not hold up, others have already done the work and demonstrated its inaccuracy.

#### Isn't it better to catch a disease "naturally"?

Many parents value a natural lifestyle which for them may mean, among other things, extended breast/chest feeding, eating organic food, and avoiding medical intervention. Parents may think that vaccines which are produced in laboratories and administered in clinics are unnatural, and that it is better for the body to catch a disease.

We can help families understand that vaccines actually allow children to maintain health more naturally than catching wild-type diseases. As we know from world history, diseases from one area coming into a population with no prior history of that disease have devastating effects.

Vaccines enable us to intentionally cultivate these diseases in milder environments. Doing so essentially reverts the diseases to a more "natural" state instead of the more virulent wild strain: one that will cause mild symptoms, promote immunity, and reduce risk of adverse health outcomes. The decision to vaccinate, therefore, is not actually a choice between getting a medical intervention or "staying natural" because medical intervention is virtually always needed for certain diseases such as whooping cough or tetanus.

#### Native Boost | A Medical Provider's Guide

Additionally, vaccines boost natural health in the following ways:

- Vaccines discourage formation of superbugs. Instead of relying on antibiotics that can promote drug resistance, vaccines prompt the body to the body to use its own immunity to identify and defeat the virus or bacterium.
- Vaccines teach the body to fight illnesses naturally. Vaccination gives the body tools to build up its own immunity against a particular disease. If, after vaccination, the patient encounters a particular disease, the body will know how to fight it.
- Vaccines reduce total pharmaceutical drug usage. Preventing disease means preventing the need for other treatments. Antibiotics, antivirals, and other drugs have their own various ingredients and complications. These treatments tend to have significantly more side effects than vaccines.
- Vaccine use can reduce environmental pollution. If someone is hospitalized or requires
  any outpatient procedures to treat a vaccine-preventable disease, the amount of environmental waste increases. From disposable gloves to single-use surgical devices and
  frequent bedsheet changes, the amount of garbage, water, and electricity required to
  sustain a single patient's treatment is astonishing.







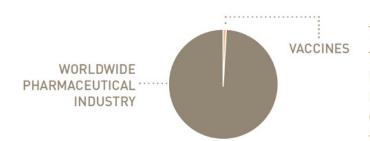




# Aren't vaccines just moneymakers for pharmaceutical companies?

Some parents think that vaccines are profit-makers for pharmaceutical companies and that governments, for-profit health organizations, and pharmaceutical companies are all part of a conspiracy to make money from vaccines. In reality, pharmaceutical companies make far more money selling drugs to treat diseases than selling vaccines to prevent them. For example, sales of the Sovaldi drug for Hepatitis C exceeded more than \$10 billion in one year. That one drug brings in more money than the annual sales of all children's vaccines from all manufacturers combined in the U.S.

#### VACCINES IN THE GLOBAL PHARMACEUTICALS MARKET



The global total of all vaccines

– for adults and children by all
pharmaceutical companies that
produce vaccines—represents
only 5% of a trillion-dollar
worldwide pharmaceutical industry.

#### Can vaccines cause autism?

As a medical provider, this question may be among one of the most common vaccine-related question you are asked. There are over 100 medical studies finding no link between vaccines and autism, yet the myth persists online and among parenting circles. Parents understandably want to know what causes autism.

The rates of autism have increased over the past two decades, but the scientific community has not reached a consensus as to the causes of the condition. As a provider, the best thing you can do is to empathize with parents. It is ok to say, "I'm concerned, too, which is why I want to find a cause and be part of the solution." Explain to parents that researchers have investigated and found no link between vaccines and autism.

Remind parents you are their children's advocate and you would not support vaccination if you thought children would be harmed. In the roughly 100 years vaccines have been administered in the United States, any vaccine with a legitimate safety concern has been swiftly and appropriately removed from use. The first vaccine approved in the US to prevent rotavirus gastroenteritis- the RotaShield vaccine, was pulled off the market when it was discovered that it triggered intussusception, a generally treatable condition, in only 1 out of 10,000 infants. Vaccine manufacturers then created a better version with a lower risk of intussusception, which is now in routine use and very safe.

For more information about autism, including its possible causes, direct parents to the Autism Science Foundation (<u>autismsciencefoundation.org</u>).

I met with my doctor in Ashland, who was willing to have a long discussion with me about the importance of being fully immunized. Both of my daughters have continued to stay up to date with their vaccines to this day.

As a mother who has a daughter with autism, I don't believe that there is enough concrete information to suggest that vaccines could have caused my daughter to have autism. When she was born, before any vaccinations, she would shake her tiny hands in front of her mouth. This was unusual compared to the other babies we were around. This has now evolved into the stemming that she does, which is an indicator for autism and autism spectrum disorders.

I urge everyone to vaccinate their children. I don't ever want to have to say goodbye to my babies and forever regret not doing something that could have saved their lives.



**Amy** Southern Oregon

#### Can I space out my child's shots?

Some parents are open to vaccination but want to do so on an "alternative schedule," a schedule other than the one recommended by the CDC and AAP. Reasons for doing so are varied: They think too many shots at one time will overwhelm their child's immune system, that too many shots may cause autism, and/or that the recommended schedule was created for the convenience of the medical industry and not for the baby's benefit.

The recommended schedule is based on when the vaccines are best tolerated and safest, and when they offer the greatest protection to the child.

Maternal antibodies protect babies for about six months, and some parents think beginning vaccination after six months is sufficient. However, antibodies given by parent to baby offer "passive immunity," meaning that those antibodies cannot be remade. When baby makes her own antibodies, this is called "active immunity," and are more effective in fighting off disease. Vaccines offer significant protection during this period when baby is beginning to make her own antibodies, thus it is important to keep to the recommended vaccine schedule.

Another reason to follow the recommended schedule is that some infections such as pertussis, haemophilus, and pneumococcus infections are much more severe in younger infants. The most important time to protect baby against those diseases is early in infancy, and the longer a vaccine is delayed, the less benefit to baby. With doses at two, four, and six months, baby's active immunity builds up just as maternal antibodies fade away. Starting vaccines at six months of age would leave baby with the least protection during the most critical period.

Some parents may think delaying vaccination will give their children a stronger immune response to vaccines. However, it is not the strength of the response that matters most to the child's health. A perfectly adequate, modest immunity throughout infancy is far more desirable than suffering through the highest risk period with no immunity.

The ideal situation for a patient is just enough immunity to stop a disease from doing harm, at the age when that disease causes the most harm.

The fourteen vaccines found on the childhood immunization schedule contain a total of 150 immunological components. This amount is tiny on an immunologic scale. Out in the world, children face trillions of cells of bacteria and viruses. Each bacterium alone can contain 2,000 to 6,000 immunological components and a child's immune system processes many of these bacteria simultaneously.

The entire vaccination schedule, even if given all at once, would be smaller than what a baby's immune system manages every day.

For our first child, we gave him most (not all) of the recommended vaccinations, on a delayed schedule, one at a time. As he grew older and he was more afraid of shots, it became a huge challenge and inconvenience to go back and forth to the doctor.

Due to my exhaustion of schlepping kids to the doctors on multiple occasions, my son's emotional fear of needles as he grew, and the fact that I had yet to read any current medical evidence that routine vaccine schedules were dangerous (in fact, I started hearing about local outbreaks of preventable diseases in our hometown of Portland, OR), we decided to follow the CDC guidelines for our daughter.

I have cut my doctor trips by more than half, and I also have peace of mind when I let her play and interact with children from all geographic locations, both at home and when we travel.

Rachel

Portland, OR



#### What About Parents Who Choose Not to Vaccinate?

We strongly encourage medical providers to continue to advise and support vaccinehesitant patients and parents. Even speaking for a few minutes about a particular aspect of vaccines at an appointment can increase vaccine confidence. If time allows, make additional appointments with the specific purpose of talking about vaccines.

Motivational interviewing is a great technique to increase vaccine confidence. Assess a families' readiness to change and counsel them over time, helping them understand why vaccines support the health of children and the community. This process requires trust, patience, and persistence, and it is often successful over time.

#### Boost Oregon and Native Boost are here to support you and your patients

Direct parents to our websites (<a href="www.boostoregon.org">www.boostoregon.org</a> and <a href="https://www.npaihb.org/native-boost/">https://www.npaihb.org/native-boost/</a>) and encourage them to attend a community workshop, read our Parents' Guide to Children's Vaccines, and hear other parents' stories about vaccination. We have many opportunities to support parents in giving their children the best shot at a healthy life.

#### Additional Resources

For additional information about children's vaccines, check out Boost Oregon's website (boostoregon.org), contact us at info@boostoregon.org, join our Facebook page (facebook.com/boostoregon), and follow us on Twitter (@boostoregon) and Instagram (https://www.instagram.com/boost\_oregon/) (https://www.npaihb.org/native-boost/).

Other national resources include the following:

- American Academy of Pediatrics (<u>aap.orq</u>)
- Centers for Disease Control and Prevention (<u>cdc.gov</u>) Families Fighting Flu (<u>familiesfightingflu.org</u>)
- History of Vaccines (<u>historyofvaccines.org</u>)
- Immunity Community (<u>immunitycommunitywa.org</u>) Immunize Oregon (<u>immunizeOR.org</u>)
- Immunization Action Coalition (<u>vaccineinformation.org</u>) National Institute of Health (<u>nih.gov</u>)
- Oregon Health Authority (<u>public.health.oregon.gov</u>) Parents of Kids with Infectious Diseases (<u>pkids.org</u>) Vaccinate Your Family (<u>vaccinateyourfamily.org</u>) Vaccine Education Center (<u>chop.edu</u>)
- Voices for Vaccines (voicesforvaccines.org)







