

Strategies to Improve Vaccine Confidence

Jessica Cataldi MD MSCS

jessica.cataldi@childrenscolorado.org

University of Colorado School of Medicine

Section of Pediatric Infectious Diseases

Objectives

- Explore responses to **recent changes** in US vaccine policy
- **Define** vaccine hesitancy
- Describe specific **clinician communication** techniques for vaccination
 - Culture of vaccination
 - Presumptive approach
 - Shared clinical decision making
 - Motivational interviewing
- Identify resources for **reliable vaccine information**

Explore responses to **recent changes** in US vaccine policy

But first... What the heck happened in 2025?

- Changes to HHS, FDA leadership
- Funding cuts, workforce reduction at CDC, FDA, NIH
- Halting, restriction of federal grants for scientific research
- Dismantling of federal data collection, surveillance systems
- US withdraws from WHO
- USAID defunded

IN THE LAB

NIH funding cuts have affected over 74,000 people enrolled in experiments, a new report says

Studies were testing treatments for conditions including cancer, heart disease, and brain disease

<https://www.statnews.com/2025/11/17/nih-funding-cuts-disrupt-people-studies/>

<https://ph.ucla.edu/news-events/news/research-finds-more-14-million-preventable-deaths-2030-if-usaid-defunding>



UCLA Fielding
School of Public Health

2025

Research finds more than 14 million preventable deaths by 2030 if USAID defunding continues, including more than 4 million children under five

.....
USAID funding helped save 91 million lives over the past 20 years—new analysis warns that recent U.S. aid cuts could now put that progress at risk.

But first... What the heck happened in 2025?

- FDA:
 - Restricts license of COVID vaccines
 - Proposal of new approval criteria for vaccines and drugs
 - Decreased transparency around decisions
- ACIP:
 - Dismissal of all 17 ACIP members
 - Disbanding of most work groups
 - New members lack experience, expertise
 - Meeting schedule disrupted
 - Decreased transparency



Kennedy removes all ACIP members, eyes replacements

Lisa Schnirring, June 9, 2025

Contents lists available at [ScienceDirect](#)

Vaccine

journal homepage: www.elsevier.com/locate/vaccine



Commentary

Science for vaccine policy: Independent review of the September 2025 ACIP processes, deliberations and votes

Edwin J. Asturias^a, Lin H. Chen^b, Albert C. Shaw^c, Charlotte A. Moser^d, Yvonne A. Maldonado^e, Jane R. Zucker^f, Helen Y. Chu^g, H. Keipp Talbot^h, Sybil Cineasⁱ, Karyn Lyons^j, Robert Schechter^k, Mini Kamboj^l, Zanthia Wiley^m, Noel T. Brewer^{n,*}

But first... What the heck happened in 2026?

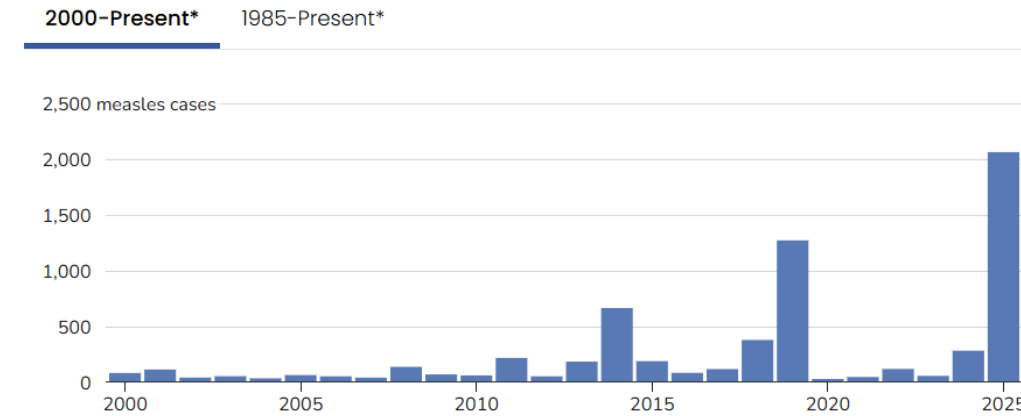
- CDC / ACIP
 - Changes to childhood vaccine schedule from Fall 2025-January 2026
 - March 17, 2026: court ruling puts these changes on hold
 - Currently: HHS is appealing that ruling, for now the changes are still on hold
- *PROPOSED & HALTED CHANGES THAT STILL CAUSE CONFUSION:*
 - Narrower recommendation for birth dose HepB
 - MMRV not recommended in younger kids
 - Influenza, COVID not routinely recommended for children
 - HepA, HepB, rotavirus, meningococcal vaccines not routinely recommended for children

And what else is happening?

- Measles
- Pertussis
- Influenza
 - Pediatric deaths: 297 last year
 - Avian flu

Yearly measles cases

as of December 30, 2025



SCI AM

Whooping Cough Deaths Rise in U.S. as Surge in Infections Continues

Whooping Cough Deaths Rise in U.S. as Surge in Infections Continues

The brutal respiratory infection has infected tens of thousands and killed at least 13 people in the U.S. in 2025

BY MEGHAN BARTELS EDITED BY CLAIRE CAMERON

JAMA | Original Investigation

Modeling Reemergence of Vaccine-Eliminated Infectious Diseases Under Declining Vaccination in the US

Mathew V. Kiang, ScD; Kate M. Bubar, PhD; Yvonne Maldonado, MD; Peter J. Hotez, MD, PhD; Nathan C. Lo, MD, PhD

★ 'I Feel Like I've Been Lied To': When a Measles Outbreak Hits Home

From a lone clinic in Texas to an entire school district in North Dakota, the virus is upending daily life and revealing a deeper crisis of belief.



SENIOR CENTER

**WEAR A MASK
WASH YOUR HANDS
SOCIAL DISTANCE
STAY SAFE**

COME JOIN US

Explore responses to **recent changes** in US vaccine policy

- Vaccine safety
- Information sources
- Policy and public health
- Hot topics

Safety: Do these systems matter anymore?


- Changes at CDC, FDA, ACIP- fair question!
- VAERS already used by FDA officials to cast doubt on pediatric COVID vaccines
- Consider incentives of vaccine manufacturers around safety, efficacy
- Vaccines are still developed for global market- EMA similar to FDA
- Decades of data on existing vaccines and historic CDC schedule (2024)




Information sources:

- Diversify resources you use and share with patients:
 - AAP, AAFP, ACOG, IDSA, STAT News, Vaccine Integrity Project
- Avoid misinformation by looking for consensus, expertise, motivation
- AAP, AAFP published immunization schedules
- CDC, ACIP:
 - Healthy skepticism
 - Check dates

Table 1 Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger, United States, 2025

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN® 

These recommendations must be read with the **Notes** that follow. For those who fall behind or start late, provide catch-up vaccination at the earliest opportunity as indicated by the outlined purple bars . To determine minimum intervals between doses, see the catch-up schedule (Table 2).

Vaccine and other immunizing agents	Birth	1 mos	2 mos	4 mos	6 mos	8 mos	9 mos	12 mos	15 mos	18 mos	19–23 mos	2–3 yrs	4–6 yrs	7–10 yrs	11–12 yrs	13–15 yrs	16 yrs	17–18 yrs
Respiratory syncytial virus (RSV-mAb [nirsevimab, clesrovimab])	1 dose during RSV season depending on maternal RSV vaccination status (See Notes)					1 dose nirsevimab during RSV season (See Notes)												
Hepatitis B (HepB)	1 st dose	2 nd dose			3 rd dose													
Rotavirus (RV): RV1 (2-dose series), RV5 (3-dose series)			1 st dose	2 nd dose	See Notes													
Diphtheria, tetanus, and acellular pertussis (DTaP <7 yrs)			1 st dose	2 nd dose	3 rd dose				4 th dose				5 th dose					



Vaccine Integrity Project

Providing trusted, science-based information for informed vaccine choices.



Evidence Reviews

Read our recent evidence reviews and access our interactive tools.



Viewpoints

Access our recent Viewpoints addressing timely vaccine topics.

Policy and Public Health

- Power of local and state action
- Bolster disease surveillance systems:
 - Public health efforts
 - Screening questions in clinic?
- Brush up on vaccine preventable disease knowledge

The NEW ENGLAND JOURNAL of MEDICINE

REVIEW ARTICLE

Measles 2025

Lien Anh Ha Do, M.D., Ph.D.,^{1,2} and Kim Mulholland, M.B., B.S., M.D.^{1,4}

GOVERNORS *working together to* **PROTECT PUBLIC HEALTH**

Disease doesn't stop at state borders - and neither should state preparedness.

Colorado's new law protects vaccine recommendations from RFK Jr.'s CDC overhaul



By John Daley · Jun. 18, 2025, 2:33 pm

<https://www.govsforhealth.org/>
<https://www.cpr.org/2025/06/18/new-colorado-law-vaccine-recommendations-rfk-jr-cdc/>

Do LAH et al. NEJM 2025, <https://www.nejm.org/doi/full/10.1056/NEJMra2504516>

Hot Topics

- How to have conversations amidst perceived tension
 - Lead with empathy, acknowledge challenges
 - Talk as doctor and fellow human
 - Shared motivation of caring for patients and their families
 - Personal experience with diseases and vaccination
 - Keep it amicable



Communicating with Families and Promoting Vaccine Confidence

[Home](#) / [Patient Care](#) / [Immunizations](#) / Communicating with Families and Promoting Vaccine Confidence



You are families' most trusted source of immunization information. Use these resources to communicate effectively.



 **Immunizations: Setting Kids up for Lifelong Health**



New Evidence-Based Recommendations on



Hot Topics

- Shared clinical (or individual / informed) decision making
 - Still part of vaccine schedule
 - Still covered by VFC, insurance
- What does shared clinical decision making (SCDM) mean?
 - In medicine: Applies when there are multiple somewhat equivalent treatment options without clear recommendation and patient preference plays a role.
 - In PAST vaccine policy: Used as specific designation for situations when data (often cost-benefit data) may not support universal recommendation, but patients can still benefit from vaccination.
 - In CURRENT ACIP voice: Used casually to mean ‘not universally recommended’, undermine vaccine confidence and imply that other recommendations are not as respectful of patient/parent autonomy.
- Your general vaccine communication with families and use of VIS does generally fulfil principles of informed consent and spirit of the new ‘SCDM’.

Why we still recommend vaccines

The House of Medicine stands with science.

The 2026 AAP immunization schedule has been formally endorsed by **12 top medical and health organizations.**

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN®



Why we still recommend vaccines

- No new science has been presented to support recent HHS/CDC schedule changes.
- No new discoveries about safety or efficacy of vaccines, no new information about risks of diseases.
- These diseases are real: ongoing outbreaks of measles, pertussis, seasonal influenza.
- Vaccines help you prevent what is preventable. Teach your immune system to be prepared.
- Vaccines are part of a healthy lifestyle to keep your family safe.
- I recommend these vaccines for everyone in my family and for my patients.

Define vaccine hesitancy

Poll: please type in chat

What percentage of the US population refuses all childhood vaccines?



Vaccine
confidence
and
acceptance

Spectrum of Vaccine Hesitancy

Complete vaccine refusal: 1-2%
Delayed/alternative schedule: ~15%
Some concerns/questions: up to 50%

Median state non-medical exemption rates for school vaccinations:

2011: 1.2% (highest 5.7%)

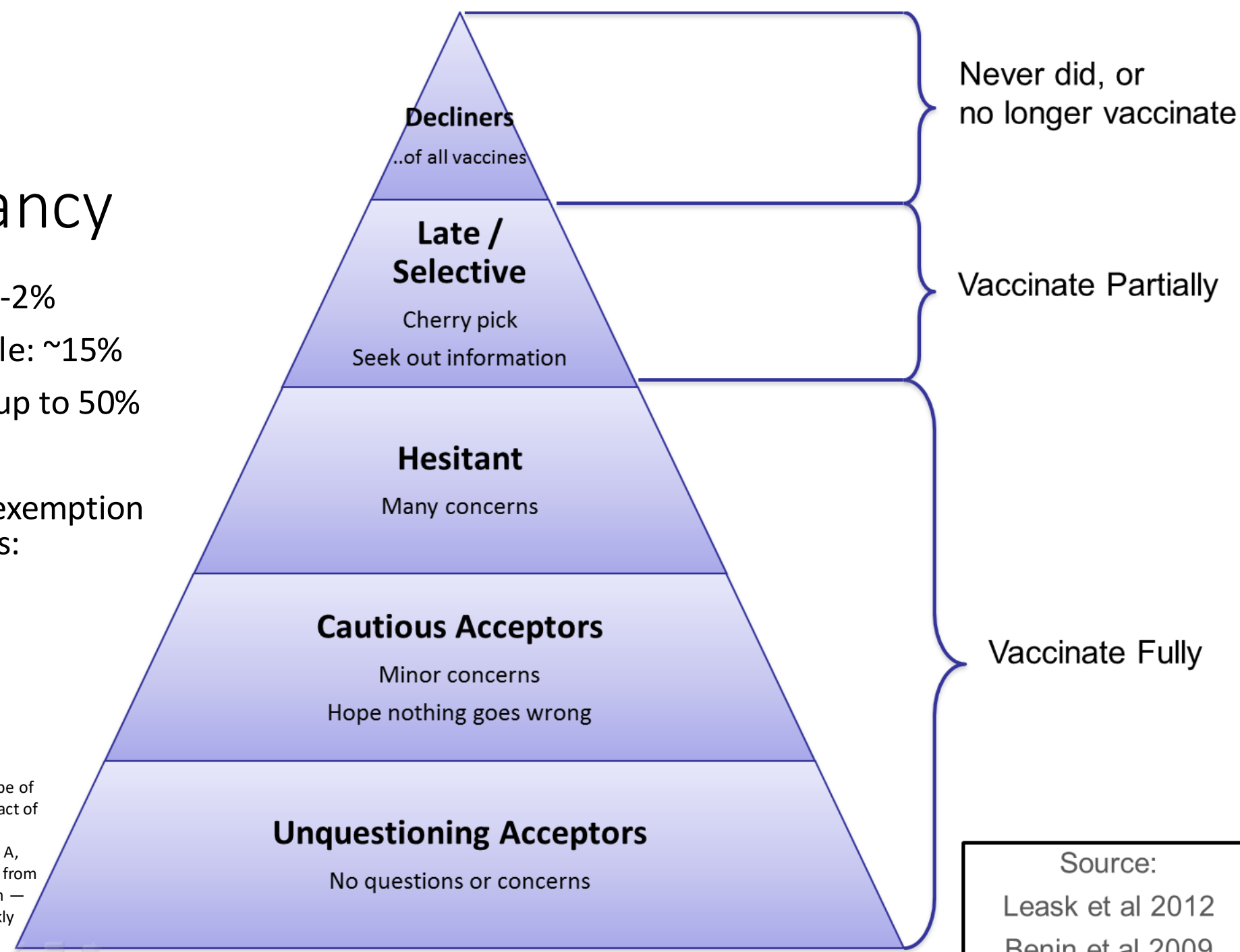
2017: 2.0% (highest 7.5%)

2022: 3.2% (highest 11.5%)

2024: 4%

Bednarczyk RA, King AR, Lahijani A, Omer SB. Current landscape of nonmedical vaccination exemptions in the United States: impact of policy changes. *Expert Rev Vaccines*. 2019;18(2):175-190.

Seither R, Yusuf OB, Dramann D, Calhoun K, Mugerwa-Kasujja A, Knighton CL. Coverage with Selected Vaccines and Exemption from School Vaccine Requirements Among Children in Kindergarten — United States, 2022–23 School Year. *MMWR Morb Mortal Wkly Rep* 2023;72:1217–1224. CDC, School Vax View, <https://www.cdc.gov/schoolvaxview/data/index.html>



Source:
Leask et al 2012
Benin et al 2009

Causes of vaccine hesitancy: responding to patient concerns

Benefits of vaccines

- Few benefits, vaccine preventable diseases (VPDs) are rare now or don't make you that sick
- Everyone else is vaccinating, so I don't need to

Context

- Challenges with access to care
- Dis- and Mis-Information
- Distrust of Medicine/Health Care Systems- systemic racism past & present

Risks of vaccines

- So many risks!
- Autism
- Too many shots / antigens, overwhelm the immune system
- Side effects
- Mercury, chemicals
- Flu vaccine makes me sick

Logistic
barriers

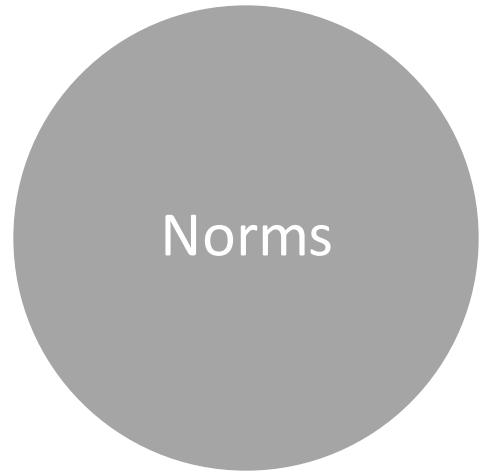
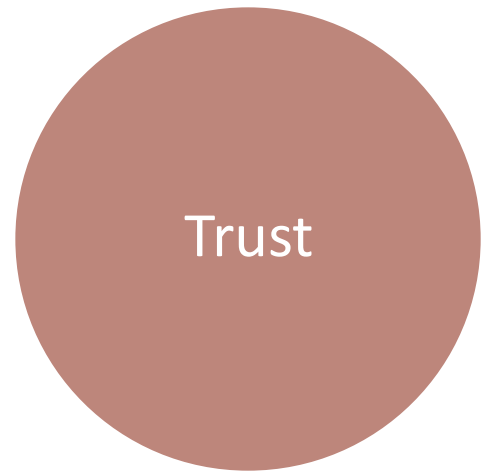
Vaccine
confidence
and
acceptance

Trust

Language

- What does anti-vaxx mean?
- Vaccine hesitancy?

- What does misinformation mean?
- Disinformation?



Money and organization behind organized anti-vaccination movement

Health & Science

Meet the New York couple donating millions to the anti-vax movement

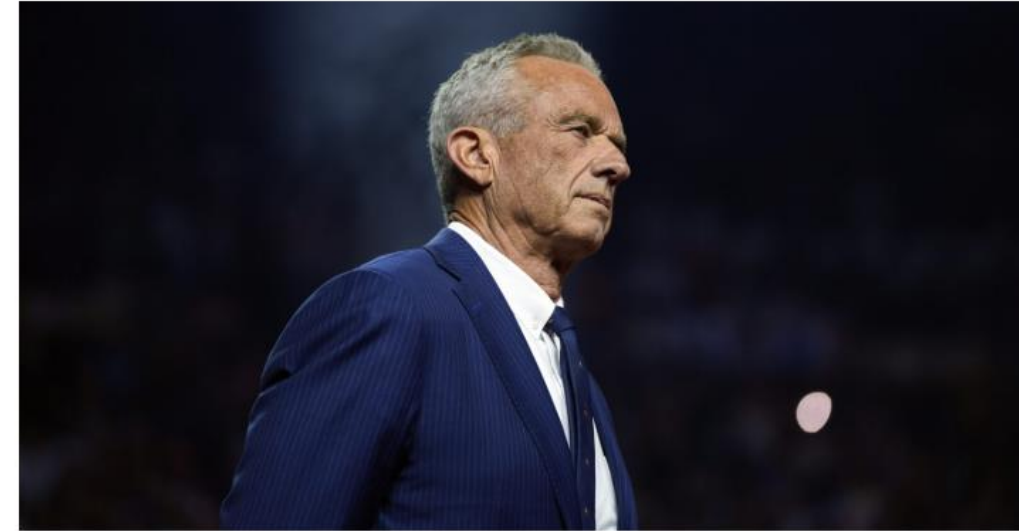


"They should be allowed to have the measles if they want the measles," Del Bigtree told reporters outside an anti-vaccine forum in Brooklyn earlier this month geared to the ultra-Orthodox Jewish community. (Yana Paskova/For The Washington Post)

By **Lena H. Sun** and **Amy Brittain**

RFK Jr. was paid six figures by his vaccine-challenging group before presidential run

The nonprofit Children's Health Defense doubled Kennedy's pay rate for a shorter tenure



Evan Vucci/AP



By **Isabella Cueto** Dec. 3, 2024

Chronic Disease Reporter

Robert F. Kennedy Jr. made over \$20,000 per week as chairman of Children's Health Defense before stepping away from the nonprofit in 2023 to run for president, new tax filings show.

<https://www.washingtonpost.com/podcasts/post-reports/meet-the-new-york-couple-donating-millions-to-the-antivax-movement/>

<https://www.statnews.com/2024/12/03/rfk-jr-maha-pay-vaccine-group-childrens-health-defense/>

Money and organization behind organized anti-vaccination movement

Hidden cameras capture misinformation, fundraising tactics used by anti-vaxx movement



'Their goal is to create noise, to create uncertainty,' says one public health expert

Eric Szeto, Katie Pedersen, Asha Tomlinson · CBC News · Posted: Jan 17, 2020 4:00 AM ET | Last Updated: January 18



Louis Mirante
@louismirante

Guys they have a BUS.



5:07 PM · Jan 7, 2020 · Twitter for iPhone



Dr. Valerie Horsley
@ValerieJHorsley

Lies and fear showed up at CT's capital today on the first day of session. #VaccinesWork #TruthMatters



<https://www.washingtonpost.com/dc-md-va/2020/07/17/black-anti-vaccine-coronavirus-tuskegee-syphilis/>

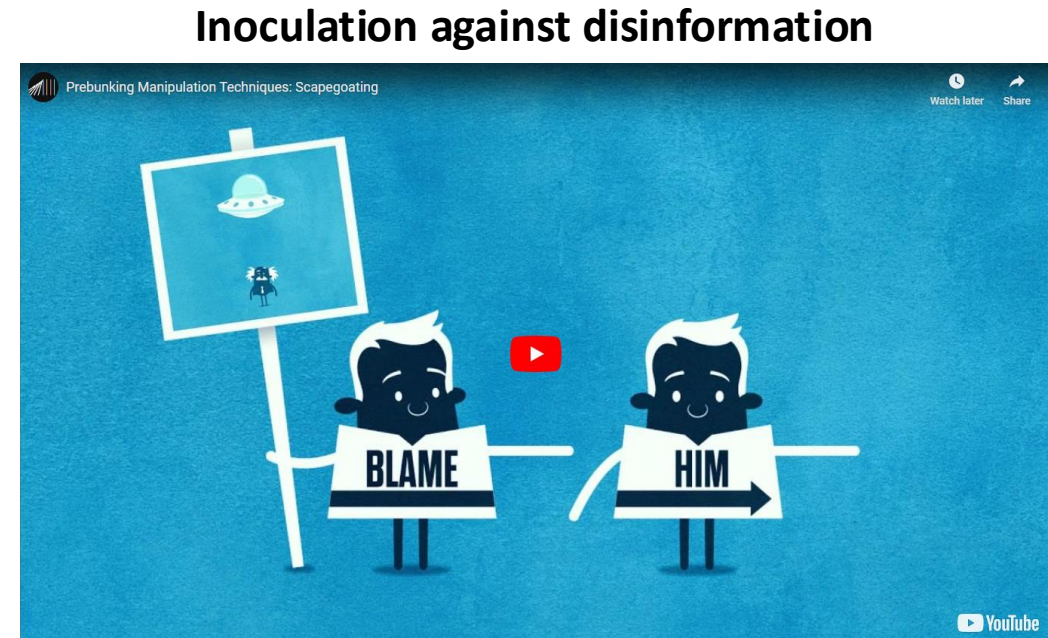


Del Bigtree, an anti-vaccination activist, speaks before a crowd of anti-vaxxers at a VIP event in V D.C. Bigtree is a controversial documentarian and one of the movement's biggest figures. (CBC)

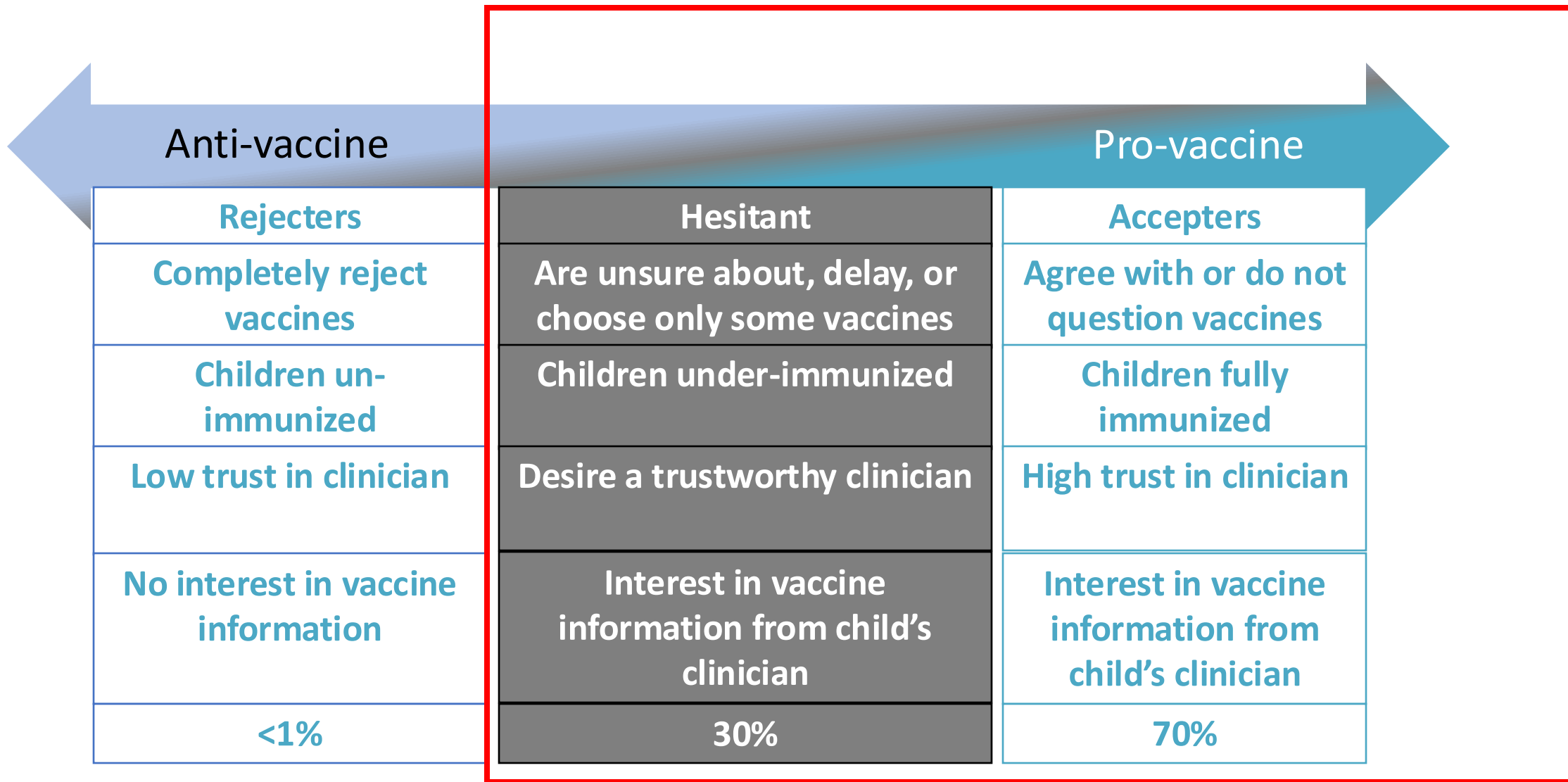
Tactics, language, spread of anti-vaccine dis/mis-information

- Health freedom, choice
- Parental rights
- Informed consent
- Natural health

- Social media algorithms link ^these^ topics to anti-vaccine info
- Selling books, treatments, supplements, seminars



<https://inoculation.science/inoculation-videos/>



Vaccine Acceptance Continuum

Describe specific **clinician communication** techniques for vaccination

Communicating about vaccines

A stylized illustration of a doctor on the left and a family of four on the right. The doctor is wearing a white lab coat, glasses, and holding a clipboard. The family consists of a father holding a baby, a mother, and a young girl. The background is a light, neutral color.

What doesn't work

- Providing the facts / education is often not enough
- Dwelling on myths
- Data dump
- Yes, but... / whack-a-mole

What does work

- Making a strong recommendation and offer for vaccines: "I think it is very important for Daniel to get this vaccine and we can do it today."
- Presumptive framing, social norms
- Motivational interviewing
- Building relationships over time

Starting with a Presumptive Recommendation for Vaccination Improves Uptake

Norms

Defaults

Several studies show a presumptive approach works, while participatory does not.

- **Presumptive:** “I recommend we get you caught up on vaccines today. You’re due for Tdap and influenza. I recommend these vaccines for all of my pregnant patients to keep them and their babies healthy.”
 - **Presumptive:** “Sally’s due for 3 vaccines today.”
- vs
- **Participatory:** “Are you planning to get Sally vaccinated today?”



Formats to Initiate the Vaccine Discussion

Presumptive Format:

- A declarative statement
- Presupposes parents will vaccinate
- “Sara gets 3 shots today.”

Participatory Format:

- An open-ended question
- Shifts decisional control to patients / parents
- Invokes uncertainty
- “How do you feel about shots today?”

Standards for Presumptive Format

Standard 1

"Today we're going to do shots." *or*
"Today we're going to do 3 shots."

"Today we're going to do shots, OK?"

Standard 2

"Sara gets 3 shots today."

"Sara gets 3 shots, OK?"

Standard 3

"Johnny's due for 3 shots today".

"Johnny's due for 3 shots today, OK?"

Most recommended

Presumptive Pearl # 1

Standard 1

"I know we talked about vaccines last time. Sara is due for 3 shots today."

Standard 2

"I know we talked about vaccines last time, and Sara really should have 3 shots today."

Standard 3

"I know we talked about vaccines last time, but I'd like to get her caught up today. She's due for 3 shots."

Standard 4

"I know you had some concerns last time, but Sara is due for 3 shots today."

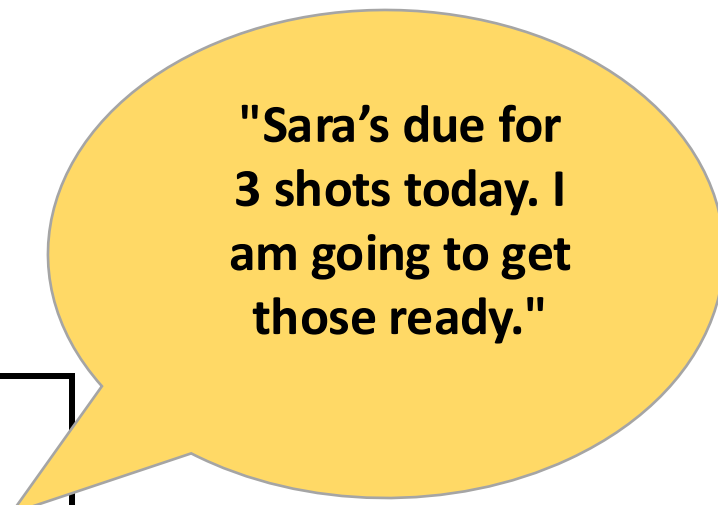
You can use a presumptive format at a visit even though a parent has voiced resistance at an earlier visit.

AVOID THIS:

"I know we talked about this last time...what do you think about vaccines today?"

Presumptive Pearl #2

Medical assistants, nurses and other staff who communicate with parents about vaccines should use the presumptive format too.



"Sara's due for 3 shots today. I am going to get those ready."

Culture of vaccination

- Consistent messaging throughout clinic visit
- Front desk, signs in office, information before check-in
- Team members rooming patient (medical assistants, nurses)
 - Introduce vaccines with statements rather than questions
 - Emphasize routine care
 - Refer questions to clinician, share information if able
- “Looks like you’re due for a varicella vaccine today.”
- “This is the visit when you’ll get a Tdap booster.
- “We just got our flu vaccines in stock so we’re recommending those for all of our patients.”

Scenario: MA talking with family about vaccinations at the beginning of the visit

1. MA: I see Damian is here for his physical today. Do you want to do vaccines?
2. MA: Good to see you again! Should I get vaccines ready while you're waiting for the doctor or...

How might a parent react to each of these introductions?

Please type in chat

Scenario: MA or RN talking with family about vaccinations at the beginning of the visit

Damian's due for 3 shots today. I am going to get those ready.

Damian's due 3 vaccines. I'll get those ready while you're seeing Dr. Roberts.

We just got our flu shots in and we're recommending those for all our patients.

Consider this type of wording instead

Poll: Please type in chat

Another team member has told you that the family is hesitant about the flu vaccine. What would you say to start the conversation? Please type in chat

1. I heard you have some concerns about the flu vaccine. Could you tell me about them?
2. I heard you have some concerns. What do you want to do about the flu shot today?
3. I heard you have some concerns about the flu vaccine. I'd really like to get Jamie protected today. He's overdue for his flu shot.

Presumptive Pearl #3

Standard 1

“Jamie is due for his flu shot today. Sam mentioned you had some concerns.”

Standard 2

"I heard you have some vaccine concerns, and I'd like to get Jamie caught up today. He's due for his flu shot."

You can still use a presumptive format after a MA, nurse, or other staff tells you the parent is hesitant.

Presumptive Pearl #4

Don't undermine the presumptive format by reverting quickly to a participatory format.

After using the presumptive format, allow parent(s) time to respond. Our natural inclination is to fill the silence. Try to resist this.

AVOID THIS:

"So, we're going to do 3 shots today, or...is that what you want to do?"

Presumptive Format

How is this different than shared clinical decision making?

- Vaccines universally recommended
- Start with a strong recommendation for the standard of care

Hearing hesitancy?

- Shift to Motivational Interviewing, a collaborative communication approach
- Keep moving toward goal of vaccination

Poll: Please type in chat

Which of these recommendations uses the presumptive format?

Choose the best response and type in the chat.

1. It looks like there are three vaccines available for Charlie today. Would you like to do those?
2. Charlie is due for MMR, varicella, and another DTaP booster today.
3. Have you thought about the kindergarten vaccines yet?
4. He's due for 3 vaccines today, what questions do you have?

Recognizing Patient / Parent Responses

Start the vaccine conversation with parents by presuming that shots will be given at the visit

Example: "Today we're going to do 2 shots."

Example: "Sara gets 2 shots today." or "I know you had some concerns last time, but Sara is due for 3 shots today."

Example: "Johnny's due for 2 shots today."

Accepts vaccines (with or without subsequent questions)

Example: "OK."

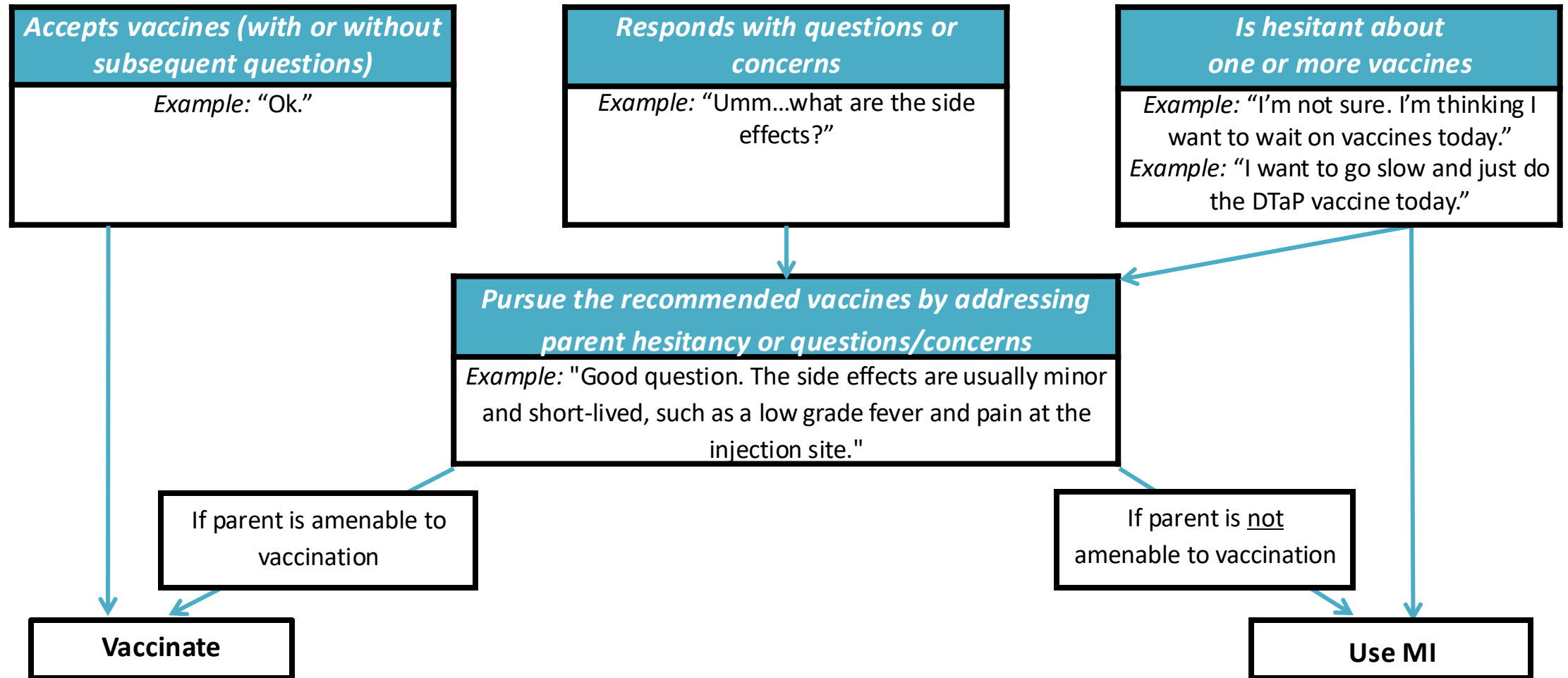
Responds with questions or concerns

Example: "Umm...what are the side effects?"

Is hesitant about one or more vaccines

*Example: "I'm not sure. I'm thinking I want to wait on vaccines today."
Example: "I want to go slow and just do the DTaP vaccine today"*

Pursuing Questions or Concerns



Group practice!: Please type in chat

Parent **accepts**
vaccines (with or
without subsequent
questions)

Parent responds
with **questions** or
concerns

Parent is **hesitant**
about
one or more
vaccines

First: Give me your vaccine recommendation.

<I will respond>

Next: What kind of response to you hear?

What are we learning?

What is Motivational Interviewing (MI)?

- Brief MI skills for vaccine conversations
- The spirit of MI:
 - Partnership
 - Acceptance
 - Compassion
 - Evocation



Why use MI with a Vaccine-hesitant Parent?



- MI is effective and efficient.
- What we think will change someone's mind:
 - Persuasion
 - Knowledge and facts
- What actually leads to change:
 - Connecting to a person's values
 - Ambivalence toward change is typical

Motivational Interviewing Skills

- **Open-Ended Questions**

- Would you mind telling more about your concerns?
- What benefits of vaccination do you think there might be?

- **Ask Permission to Share**

- Would you mind if I share with you why I think this vaccine is so important?
- Can I share with you what I know about some of these diseases?

- **Affirmations**

- You want to do what's best for your daughter's health.
- You are a good parent. Your concern shows how much you care about your child's safety.

- **Reflections**

- It sounds like you're really worried about some of the things you've read online.
- It sounds like you're concerned about side effects, and you can also see how this vaccine might be important to prevent severe disease.

- **Summarize / Support Autonomy**

- We've talked a lot about how the HPV vaccine is important to prevent cancer. That said, this is a decision only you can make.
- This decision about vaccines is up to you.



Trust



Vaccine
confidence
and
acceptance

Recognizing MI skills: Please type in chat

- **Skill 1:** _____
 - “You need to decide what’s best for you and your daughter”
- **Skill 2:** _____
 - “...but would you mind telling me more about your concerns with the MMR vaccine?”

Recognizing MI skills

- **Autonomy Support**
 - “You need to decide what’s best for you and your daughter”
- **Open-ended question**
 - “...but would you mind telling me more about your concerns with the MMR vaccine?”

Recognizing MI skills: Please type in chat

- **Autonomy Support**

- “You need to decide what’s best for you and your daughter”

- **Open-ended questions**

- “...but would you mind telling me more about your concerns with the MMR vaccine?”

- **Skill 3: _____**

- “So what I’m hearing from you is... Do I have that right?”

Recognizing MI skills

- **Autonomy Support**

- “You need to decide what’s best for you and your daughter”

- **Open-ended questions**

- “...but would you mind telling me more about your concerns with the MMR vaccine?”

- **Reflection**

- “So what I’m hearing from you is... Do I have that right?”

Exploring Ambivalence

- “I’m wondering, do you see any benefits from vaccination today?”
- “Well I guess it would be bad if he got sick with one of these diseases.”

- It’s ok to hear out negative motivations. Don’t need to refute every statement.
- Look for opportunities to re-focus a conversation
 - On benefits of vaccination
 - Reminding patient / parent of their own positive feelings
 - Promoting change talk

Recognizing MI skills: Please type in chat

- **Autonomy Support**

- “You need to decide what’s best for you and your daughter”

- **Open-ended questions**

- “...but would you mind telling me more about your concerns with the MMR vaccine?”

- **Reflection**

- “So what I’m hearing from you is... Do I have that right?”

- **Skill 4:** _____

- “I can tell you want what’s best for Mackenzie”

- **Skill 5:** _____

- “I’m wondering, what benefits you might see from vaccination today?”

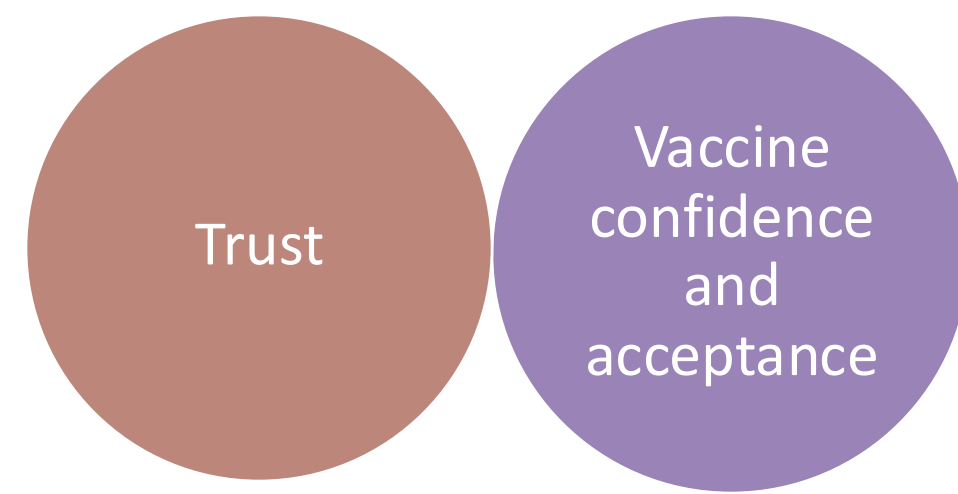
- **Skill 6** _____

- “May I share some information that might be helpful?”
- (after sharing) “How does that sound to you?”

Recognizing MI skills

- **Autonomy Support**
 - “You need to decide what’s best for you and your daughter”
- **Open-ended questions**
 - “...but would you mind telling me more about your concerns with the MMR vaccine?”
- **Reflection**
 - “So what I’m hearing from you is... Do I have that right?”
- **Affirmation**
 - “I can tell you want what’s best for Mackenzie”
- **Open-ended questions, explore ambivalence**
 - “I’m wondering, what benefits you might see from vaccination today?”
- **Ask permission to share**
 - “May I share some information that might be helpful?”
 - (after sharing) “How does that sound to you?”

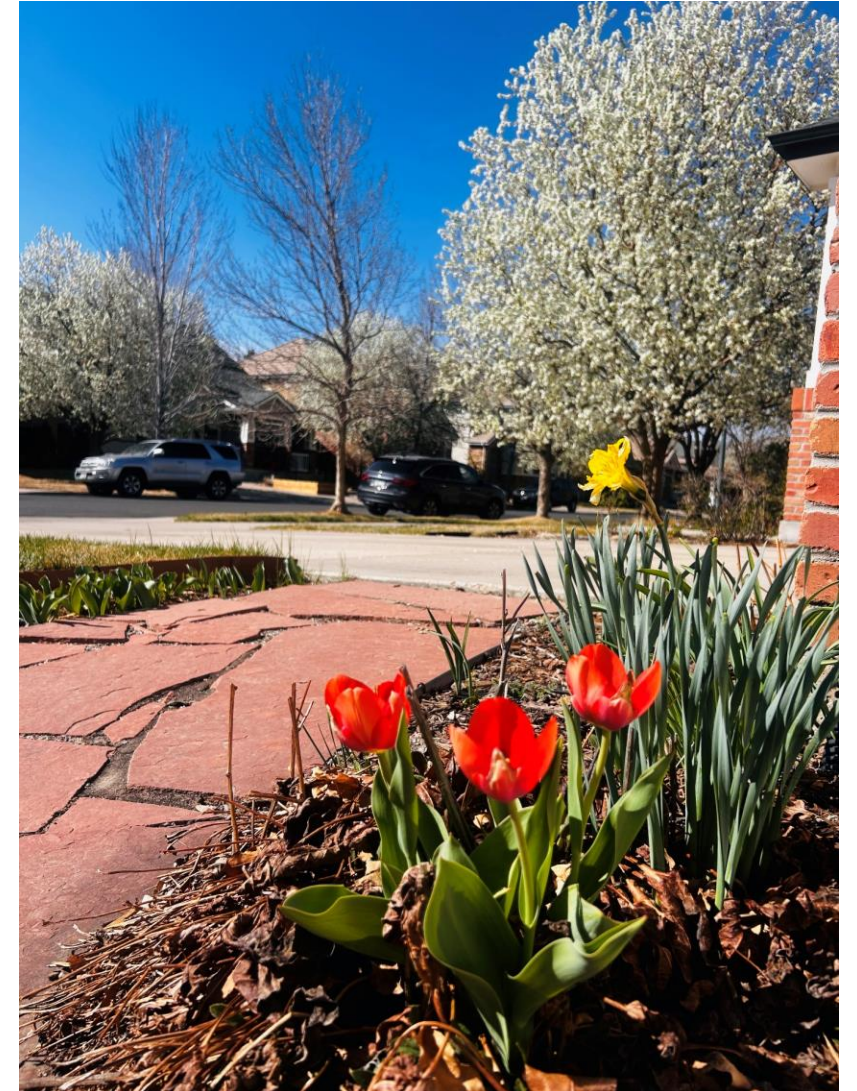
Clinician communication



- Longitudinal relationships and trust
 - “No one cares how much you know until they know how much you care” – Theodore Roosevelt (maybe)
- AAP Frameworks recommended messages:
 - Vaccines support and work with body’s immune system
 - Benefit to long-term health and well-being
 - Focus on health rather than disease, preparation rather than fighting
 - Acknowledge risks and benefits

Closing thoughts & discussion

- It is not easy
- It is important
- Your voice matters
- Change takes time
- Keep trying and share your successes



Resources for health care professionals

- **AAP** immunization website: www.aap.org/immunization
- **AAP**: Communicating with Families, including virtual simulation for conversations-
<https://www.aap.org/en/patient-care/immunizations/communicating-with-families-and-promoting-vaccine-confidence/>
- **AAFP** immunization website: <https://www.aafp.org/family-physician/patient-care/prevention-wellness/immunizations-vaccines.html>
- **CHOP Vaccine Education Center**: <https://www.chop.edu/centers-programs/vaccine-education-center>
- **Immunize.org** Vaccine Confidence & Addressing Concerns: <https://www.immunize.org/clinical/vaccine-confidence/>
- **Immunize.org** Vaccine Information Sources: <https://www.vaccineinformation.org/vaccine-basics/trusted-sources/>
- **Vaccine Integrity Project, CIDRAP**: <https://www.cidrap.umn.edu/vaccine-integrity-project>

Resources for Families

- **AAP:** <https://www.healthychildren.org/english/safety-prevention/immunizations/Pages/default.aspx>
- **CHOP Vaccine Education Center:** <https://www.chop.edu/centers-programs/vaccine-education-center>
- **History of Vaccines:** <https://historyofvaccines.org/>
- **Immunize.org:** <http://www.vaccineinformation.org/>
- **Immunize.org Vaccine Information Sources:** <https://www.vaccineinformation.org/vaccine-basics/trusted-sources/>
- **Immunize for Good:** <https://immunizeforgood.com/>
- **Inoculation Science for misinformation:** <https://inoculation.science/inoculation-videos/>
- **Voices for Vaccines:** <https://www.voicesforvaccines.org/>

CLINICAL REPORT Guidance for the Clinician in Rendering Pediatric Care

American Academy
of Pediatrics



DEDICATED TO THE HEALTH OF ALL CHILDREN™

Strategies for Improving Vaccine Communication and Uptake

Sean T. O'Leary, MD, MPH, FAAP,^a Douglas J. Opel, MD, MPH,^b Jessica R. Cataldi, MD, FAAP,^a Jesse M. Hackell, MD, FAAP,^c
COMMITTEE ON INFECTIOUS DISEASES; COMMITTEE ON PRACTICE AND AMBULATORY MEDICINE; COMMITTEE ON BIOETHICS

Norms

Trust

Vaccine
confidence
and
acceptance

Defaults

Start the vaccine conversation with parents by presuming that shots will be given at the visit

Example: "Today we're going to do 2 shots."
Example: "Sara gets 2 shots today." or "I know you had some concerns last time, but Sara is due for 3 shots today."
Example: "Johnny's due for 2 shots today."

Vaccine confidence and acceptance

Trust

Norms

Defaults

Parent accepts vaccines without questioning

Example: "Ok."

Parent responds with simple questions or concerns

Example: "Umm...what are the side effects?"
Example: "I'm not sure. Will my child get sick from the vaccine?"

Parent responds with significant hesitation about one or more vaccines

Example: "I've heard there is mercury in the vaccines."
Example: "I want to go slow and just do the DTaP vaccine today"

Pursue the recommended vaccines by addressing parent hesitancy or questions/concerns

Depending on the nature of the conversation, either simple pursuit or motivational

TABLE 4 Common Misconceptions and Myths About Immunizations

Claims	Facts
"Natural" methods of enhancing immunity, such as contracting the disease and breastfeeding, are better than vaccinations.	Vaccinations are the safest way to achieve immunity; having immunity the "natural way" means being sick with a potentially very serious infectious disease. Immunity from a preventive vaccine provides protection against disease when a person is exposed to it in the future. That immunity is usually similar to what is acquired from natural infection, although several doses of a vaccine may have to be administered for a child to develop an adequate immune response. Although breastfeeding has many benefits, including immunologic, it does not provide anywhere near the same level of protection from vaccine-preventable diseases as vaccines.
Giving multiple vaccines at the same time causes an "overload" of the immune system.	Vaccination does not overburden a child's immune system; the recommended vaccines use only a small portion of the immune system's "memory." Although the number of unique vaccines administered has risen over recent decades, the number of antigens administered has decreased because of advances in science and manufacturing. The National Academy of Medicine (NAM) has concluded that there is no evidence that the immunization schedule is unsafe.
Vaccines are ineffective.	Vaccines have spared millions of people the effects of devastating diseases.
Before the use of vaccinations, these diseases had begun to decline because of improved nutrition and hygiene.	In the 19 th and 20 th centuries, some infectious diseases began to be better controlled because of improvements in sanitation, clean water, pasteurized milk, and pest control. However, vaccine-preventable

Extra slides

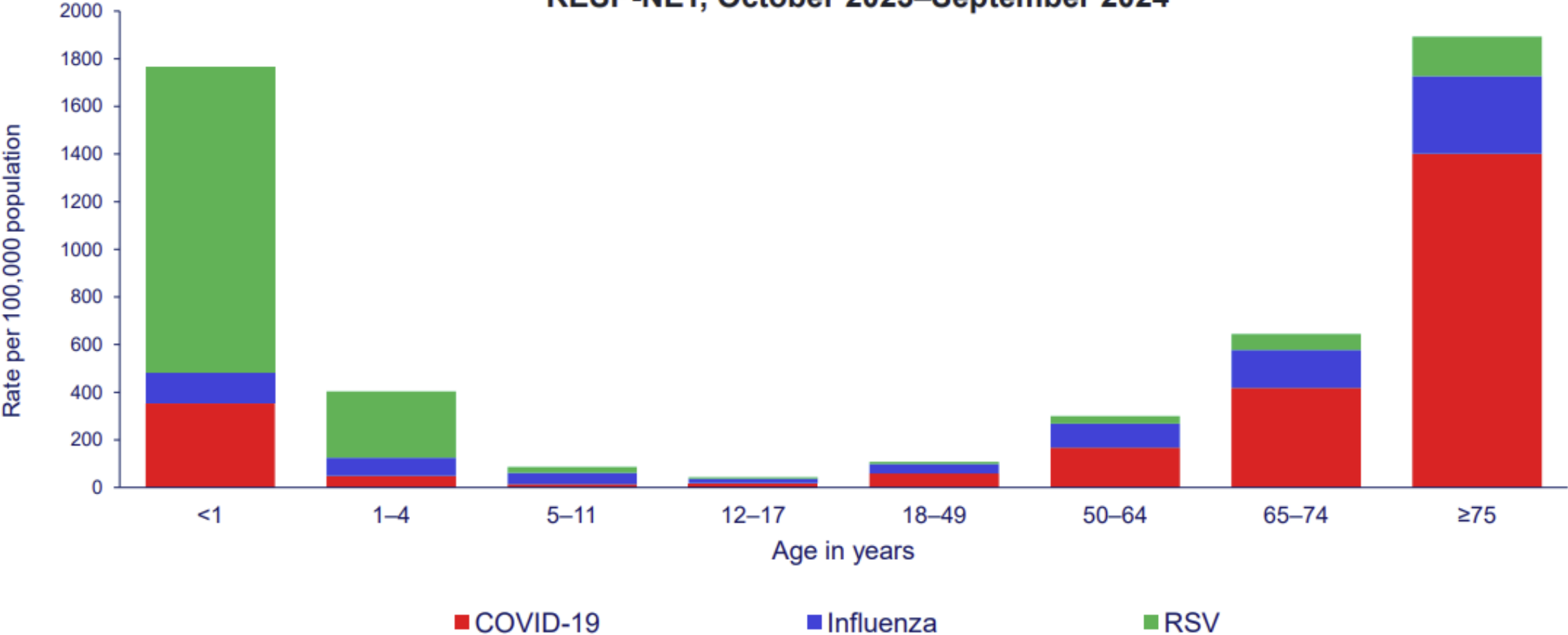
Hot Topics

- COVID vaccination for children:
 - AAP recommends for <2 years
 - ≥ 2 years if risk factors for severe disease
- Influenza vaccination:
 - AAP still recommends for all children
- RSV maternal/infant immunization:
 - 'New' CDC recommendations are actually the same as old
 - Previously was framed as universal- all babies <8 months should have either maternal vaccine protection or infant immunization
 - Now framed as RSV immunization only for 'high risk' and 'high risk' defined as infants whose mother did not get maternal vaccination.

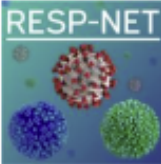
Rates of respiratory virus-associated hospitalizations vary by age group and pathogen.

<https://www.cdc.gov/acip/downloads/slides-2025-04-15-16/03-Havers-COVID-508.pdf>

Cumulative rates of COVID-19-, influenza-, and RSV-associated hospitalizations — RESP-NET, October 2023–September 2024



Rates for all three pathogens (COVID-19, influenza, and respiratory syncytial virus [RSV]) are laboratory-confirmed. Data source: <https://www.cdc.gov/resp-net/dashboard/>
Note that rates are not adjusted for testing or limited to admissions where the respiratory infection is the likely primary reason for admission.



Hot Topics

- MMRV
 - Known increased risk of febrile seizure with MMRV at 12-18 month dose when compared to separate MMR + varicella vaccination
 - No new data to prompt 2025 ACIP decision
- Birth dose hepatitis B
 - Most common way for child to acquire hepatitis B infection is at birth
 - Maternal screening is imperfect
 - Vaccine is safe
 - No new data to prompt 2025 ACIP decision

Hot Topics

Jan 2026 changes that are on hold:
proposed move to shared decision
making or risk-based

- Vaccine schedule
 - Age for vaccines based on immune response, disease risk
 - Cost/benefit and public health criteria for adding vaccines to schedule
 - New vaccines studied in combination with existing vaccine schedule
- Danish schedule
 - Disease epidemiology differs
 - Longer parental leave allows infants protection from communicable disease
 - Universal health care decreases risk of severe disease outcomes and cost of illness
 - Disease surveillance more robust, stronger public health response
 - Other countries frequently add vaccines to schedule after US does (UK added varicella in 2026)

USA	Denmark
Hepatitis B	
RSV	
Rotavirus	
Diphtheria	Diphtheria
Tetanus	Tetanus
Pertussis	Pertussis
Hemophilus	Hemophilus
Pneumococcus	Pneumococcus
Polio	Polio
COVID-19	
Influenza	
Varicella	
Hepatitis A	
Meningitis	
Measles	Measles
Mumps	Mumps
Rubella	Rubella
HPV	HPV

Reflections 2.0: Change-focused Reflection

Parent: I guess the vaccine could be important, but I'm just really worried about side effects. And she's so small.

- **Reflection**

"You want to be sure this vaccine is safe for your baby."

- **Change-Focused Reflection**

"You want to be sure the hepatitis B vaccine is safe and you also appreciate that the vaccine is important."

Autonomy Support 2.0

- **Early in conversation:**

Parent: I don't think I want Michael to get that HPV one yet.

Clinician: The decision is totally up to you, but would you mind telling me about your concerns?

- **Wrapping up conversation:**

Clinician: I'm glad we could talk about this. In the end, this is a decision only you can make.

Conversation Traps

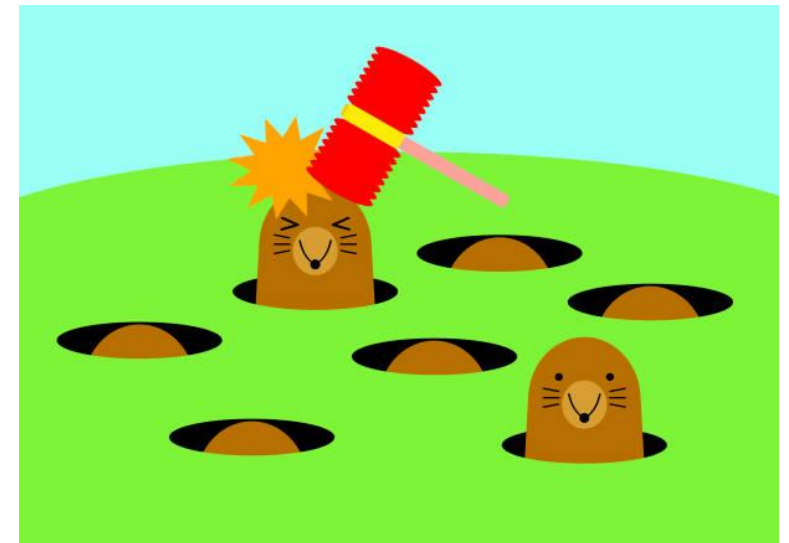
- **Persuasion or Whack-a-Mole**

Clinician: “So those are all the ways we know this is safe”

Parent: “Yes, but...”

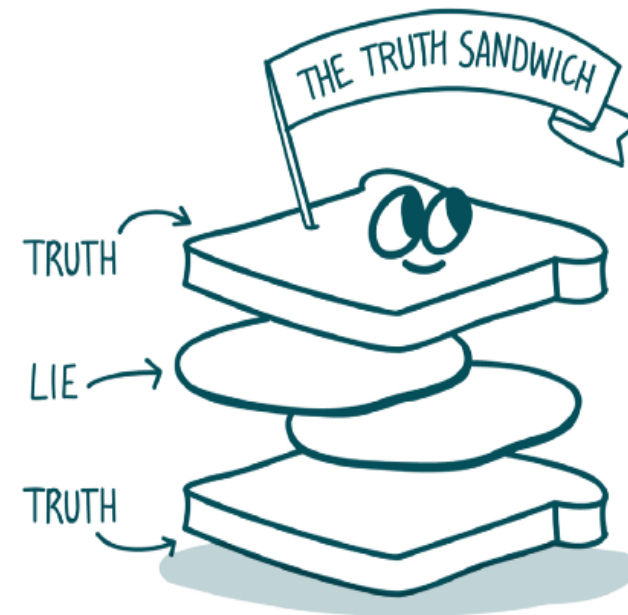
Clinician: “Well here’s a bunch more info”

“Ok, but...”



Challenges: Addressing Myths

- Ask permission to share
- State truth, why myth is false, then repeat the true message that you want them to remember
- If you've never heard the myth before, ask if you can look into it more and get back to them. Then be sure to follow through!



Parent: I'm not sure we want to do all those vaccines today. He got so many already as a baby and I'd rather space these out to give his immune system some time.

Myth: Too many vaccines are bad. Vaccines can overwhelm the immune system

Clinician: It sounds like you are worried about the number of vaccines that Marcus is due for. Would it be ok if I share with you what I know about these vaccines??

Reflection
Ask permission to share

Parent: Yeah sure.

Clinician: **Marcus's immune system is strong and able to respond to many different things at once. A child's immune system responds to lots of germs in their day-to-day life and the immune system is able to respond to multiple vaccines at once.** Some people think spacing out vaccines is better, but delaying vaccines leaves children vulnerable to those diseases we are trying to prevent. **The vaccine schedule is safe and includes vaccines at the ages when children are most in need of protection and best able to respond to a vaccine.**

Truth

Myth

Truth

Parent: Oh really? I hadn't realized that before.

Challenges: Addressing Myths

- Ask permission to share
 - Truth sandwich
- Move conversation toward vaccine benefit and disease severity.
 - Avoid a data dump