



NEW YORK STATE ASSOCIATION  
OF COUNTY HEALTH OFFICIALS  
*Leading the Way to Healthier Communities*

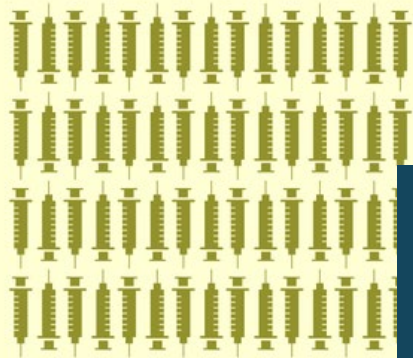
Izzy Brandstetter Figueroa, PhD, MPH  
Epidemiologist and Science Communicator  
Director of Vaccine Science Communication | Unbiased Science

UNBIASED  
SCIENCE

# FACT:

There's about **60x** more formaldehyde by weight in a pear than in any vaccine.

Some vaccines contain *trace* amounts of formaldehyde, used in manufacturing to inactivate viruses or detoxify bacterial toxins. The very, very small amount in vaccines is safe based on extensive, rigorous research.



@unbiasedscipod



## TRUST IN SCIENCE?

WITH DR. KRISTEN PANTHAGANI

THE UNBIASED SCIENCE PODCAST

### Saturday Morning Thoughts on the Tylenol-Autism News

The public health whiplash continues as we play another round of 'autism cause' roulette

THEUNBIASEDSCIPOD.SUBSTACK.COM

# ABOUT UNBIASED SCIENCE

Unbiased Science fills a critical gap in the media ecosystem for nonpartisan, trustworthy health and science information.

Our multi-disciplinary team of scientists and clinicians uses creative, data-driven storytelling to combat misinformation on divisive health topics like vaccines, foods, and fluoride.

We meet people where they are—reaching 10-30 million monthly through social media, infographics, long-form content, major media op-eds, and our podcast, always leading with empathy to ensure evidence-based content reaches those who need it most.



# THINGS I DIDN'T HAVE ON MY 2026 BINGO CARD

## NEEDING TO EXPLAIN THAT...

...vaccines are an incredible public health tool.

...measles parties aren't a public health strategy.

...herd immunity would need a rebrand.

...changing your mind when evidence changes is the whole point, not a scandal.

# THE MOMENT WE ARE IN

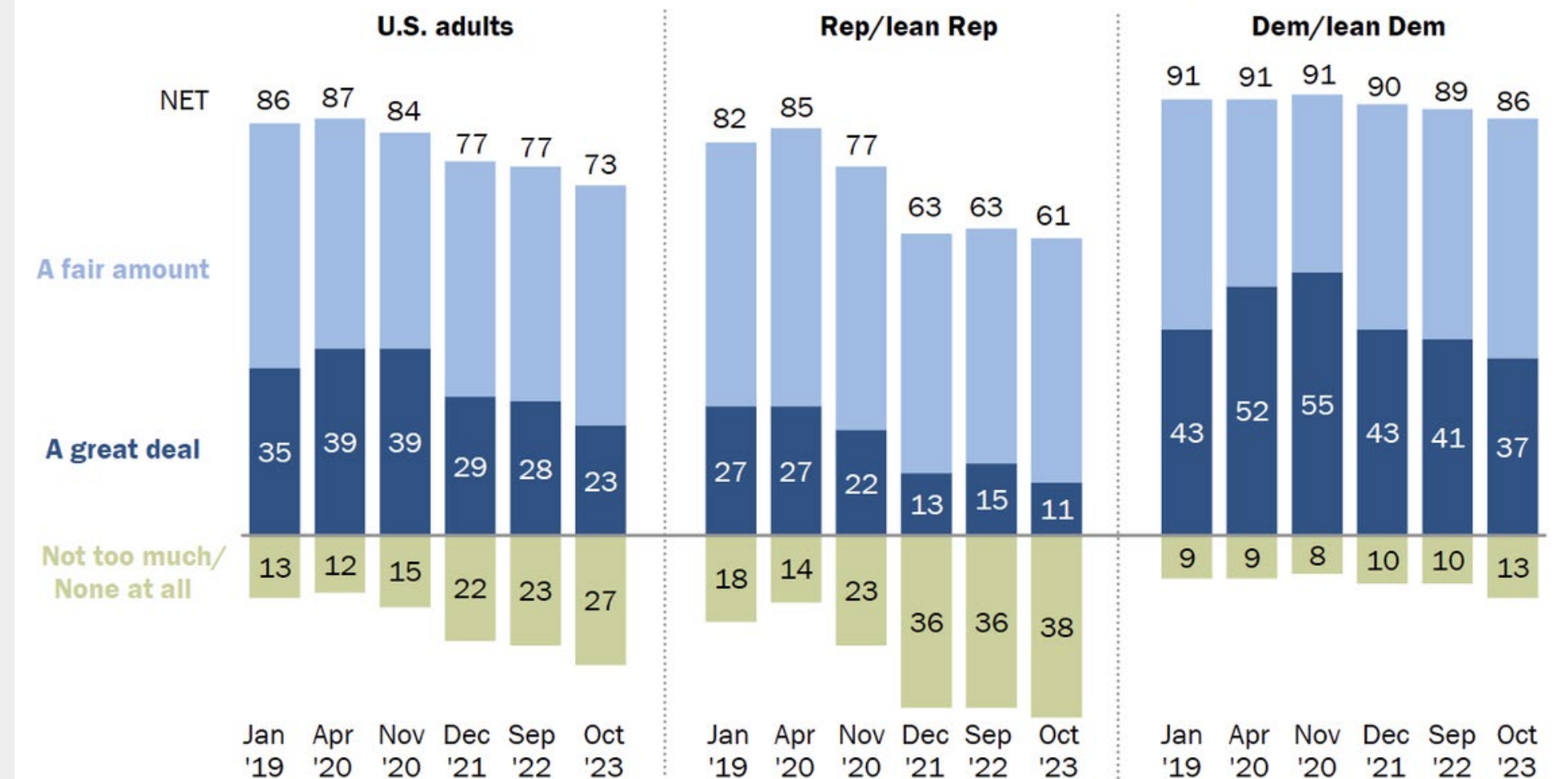
- Institutions weakened
- Trust in science declining
- Social media amplifying misinformation and disinformation
- Political polarization of public health

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- Institutions weakened
- Trust in science declining
- Social media amplifying misinformation and disinformation
- Political polarization of public health

## Declining levels of public trust in scientists

% of U.S. adults who have \_\_\_ of confidence in **scientists** to act in the best interests of the public



Note: Respondents who did not give an answer are not shown.

Source: Survey of U.S. adults conducted Sept. 25-Oct 1, 2023.

"Americans' Trust in Scientists, Positive Views of Science Continue to Decline"

PEW RESEARCH CENTER

# THE MOMENT WE ARE IN

- Institutions weakened
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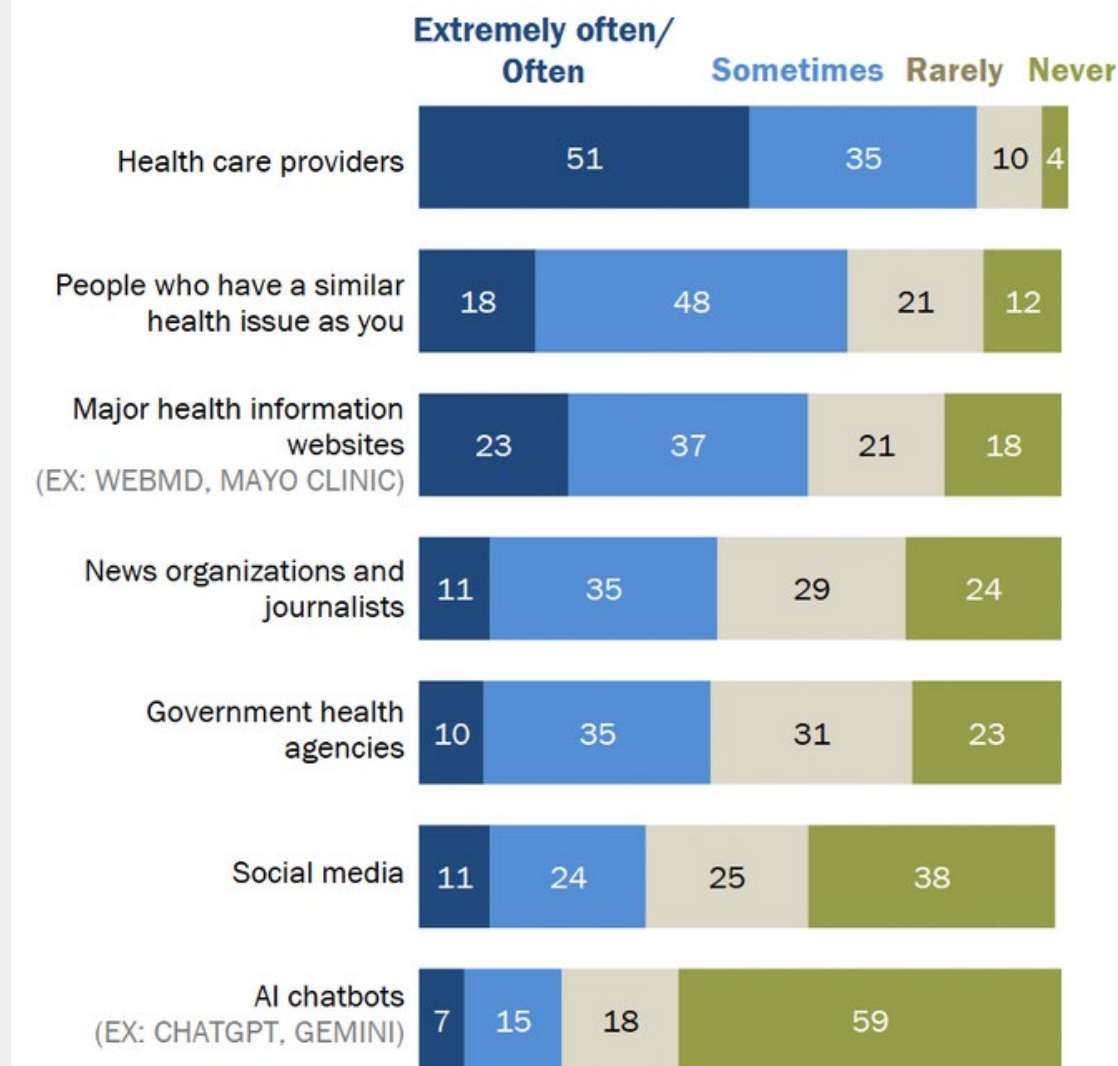
**BUT ALSO...**

- People are hungry for trustworthy information
- They want to make good decisions for their families
- The demand for credible communicators has never been higher
- Independent voices are stepping into the gap

# THE MOMENT WE ARE IN

## Americans say they get health information from health care providers more often than other sources

% of U.S. adults who say they get health information from each of the following ...



Note: Respondents who did not give an answer are not shown.  
Source: Survey of U.S. adults conducted Oct. 20-26, 2025.  
"Where Do Americans Get Health Information, and What Do They Trust?"

PEW RESEARCH CENTER

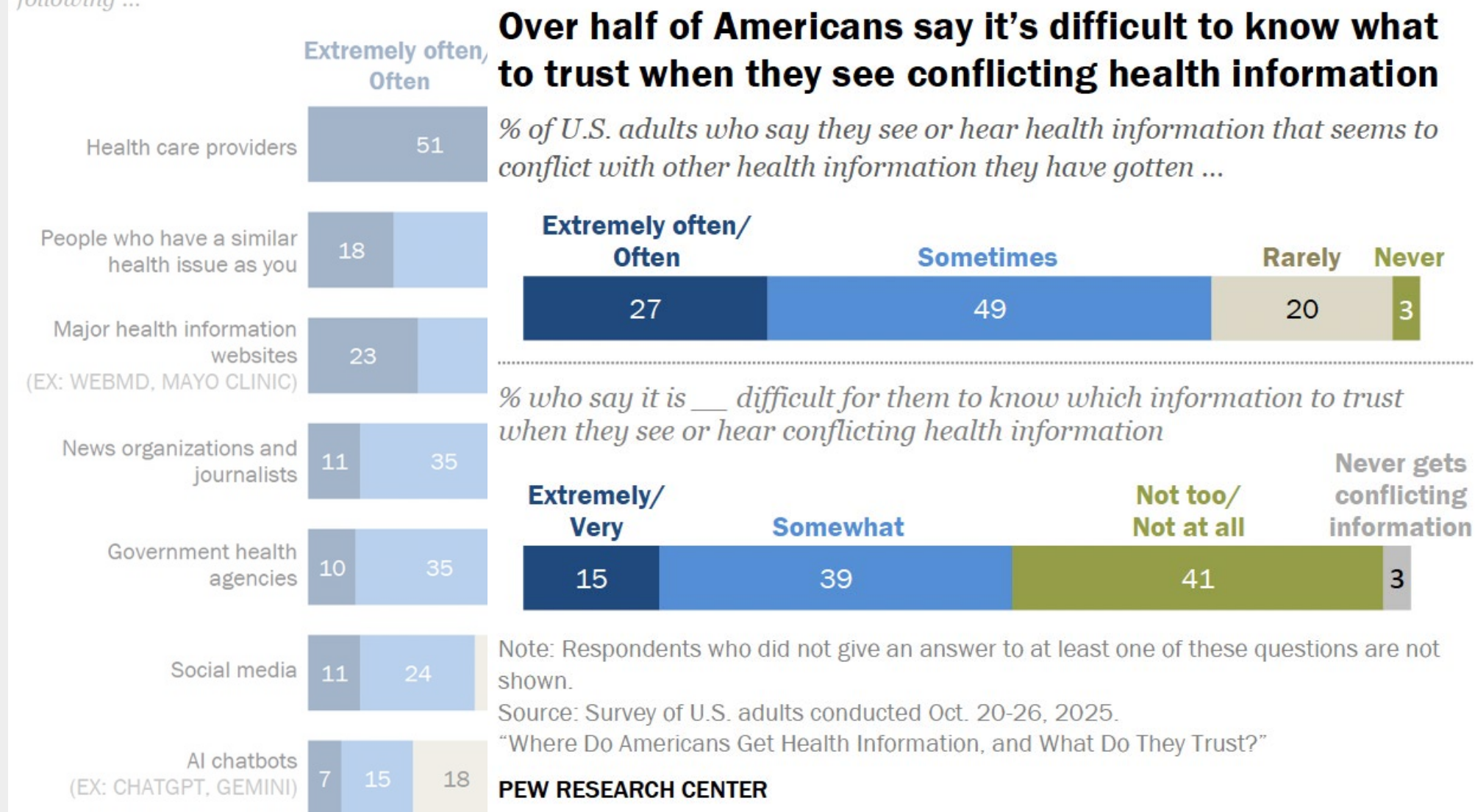
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Pasquini G, Stocking G, et al. Where Do Americans Get Health Information, and What Do they Trust? Pew Research Center. April 7, 2026.

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# WHAT ARE WE GETTING WRONG?

## THE DEFICIT MODEL

We assumed that if we just explained the science clearly enough, people would comply.

## PATERNALISM

We've prioritized being right over being effective.

## CONDITIONAL COMPASSION

We've made empathy contingent on whether someone made the "right" health choice.

**BARRIER**

"Complex  
scientific  
language"

**BARRIER**

"Perceived  
conflicts of  
interest"

**BARRIER**

"Historical  
mistrust"

**BARRIER**

"Lack of  
transpar -  
-ency"

**BARRIER**

"Information  
overload"

# THE TRUST GAP

## Most Trusted Information Sources:

Friends/family recommendations  
Social media influencers  
Local food producers  
Health/wellness bloggers

## Less Trusted Information Sources:

Traditional media  
Government agencies  
Scientific institutions  
Pharma/Industry  
Corporations

## SCIENTIFIC REALITY

### Key Elements:

Regulatory processes  
Scientific consensus  
Evidence -based decisions  
Risk assessment  
frameworks

## PUBLIC PERCEPTION

### Key Elements:

Social media influence  
Personal experiences  
Cultural beliefs  
Emotional responses

# DID THE OLD WAY EVER WORK?

People want more, and we need to do better.



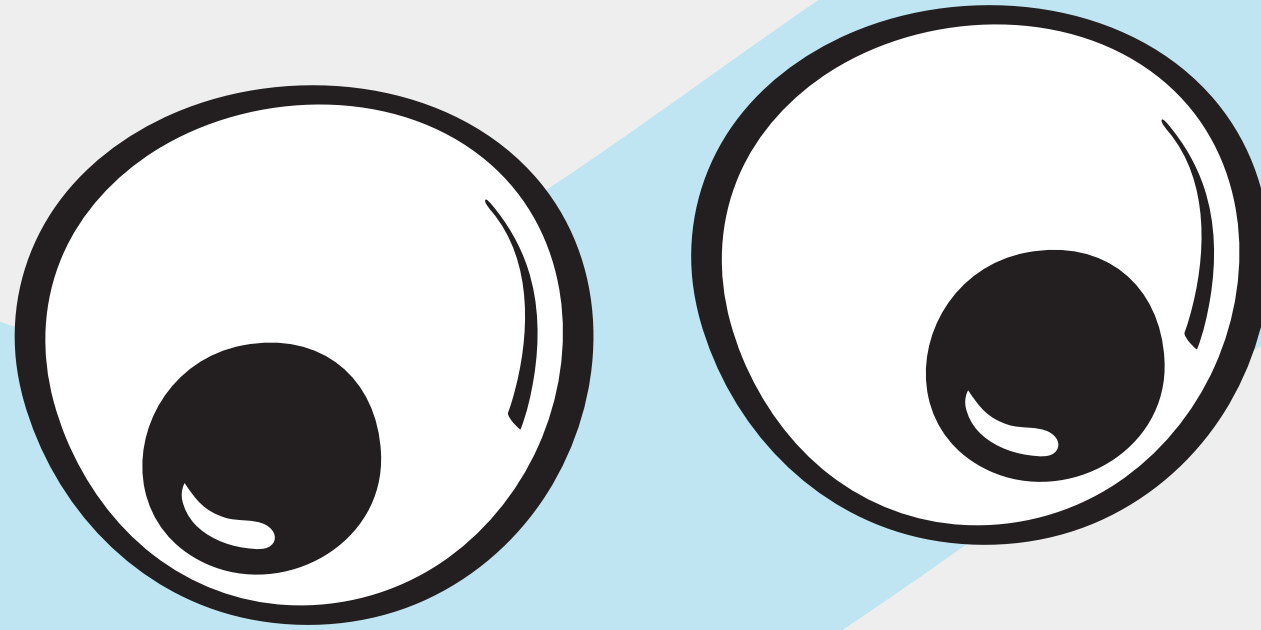
IF WE WANT  
TO DO BETTER,  
WE HAVE TO  
TEACH THE  
INFORMATION  
IN A NEW  
WAY.



**IN THROUGH  
ONE EYE...**

**Passive**

**No patient**



**Recall, no skill**

**No practice**

**No feedback**

**OUT THE OTHER**

# THE **FLU VACCINE** CONVERSATION

*Setting: You're grabbing lunch with your friend  
Mark who mentions flu season is ramping up.*



**MARK**



Look, I just hate needles. I know it's dumb but I get sweaty just thinking about it.



**Full conversation guide:** [unbiasedscience.org/academy](https://unbiasedscience.org/academy) -conversation -guides

# THE **FLU VACCINE** CONVERSATION

*Setting: You're grabbing lunch with your friend  
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**MARK**

Look, I just hate needles. I know it's dumb but I get sweaty just thinking about it.

**YOU**

Dude, that's not dumb at all! Tons of people feel that way. Have you tried the nasal spray? FluMist - no needle at all, you just sniff it. Or if you do get the vaccine with a needle, tell them you're needle-phobic. They have techniques - they can use a cold spray to numb the area, have you lie down, use the smallest needle. The whole thing takes literally 2 seconds. Maybe we could go together and grab coffee after?



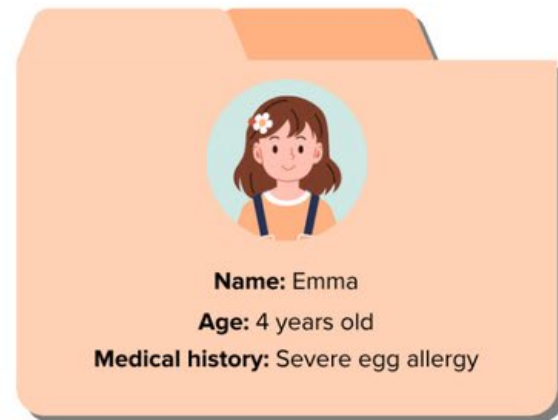
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-conversation -guides

# FROM GUIDE TO GAME...

You have three patients coming in today...

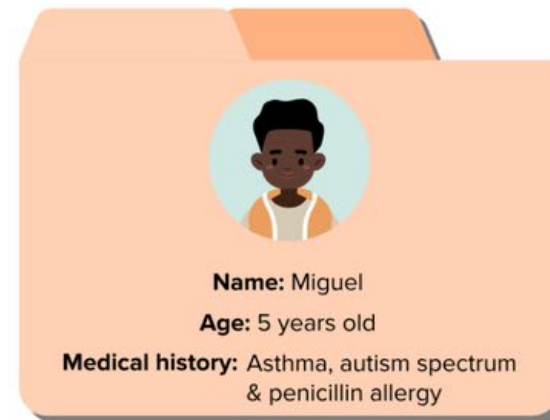
CLICK A FOLDER TO SEE YOUR FIRST PATIENT.



**Name:** Emma  
**Age:** 4 years old  
**Medical history:** Severe egg allergy

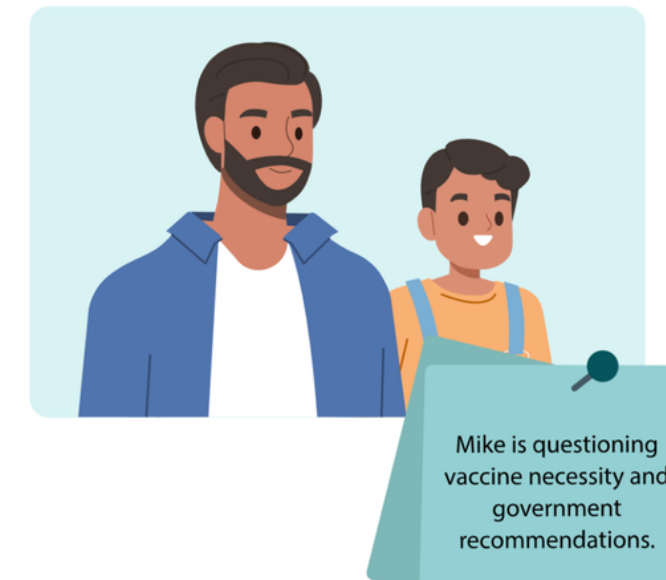


**Name:** Jackson  
**Age:** 10 years old  
**Medical history:** No medical issues



**Name:** Miguel  
**Age:** 5 years old  
**Medical history:** Asthma, autism spectrum & penicillin allergy

Your patient is Jackson, a 10-year-old child who has come in for his annual check-up with his dad, Mike



Mike is questioning vaccine necessity and government recommendations.

### Jackson's patient file

|                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                       |                                                                                                                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br><b>Medical history</b> <ul style="list-style-type: none"><li>No current medical issues</li><li>Physically active</li><li>No chronic conditions</li></ul> | <br><b>Social history</b> <p>Jackson's dad:</p> <ul style="list-style-type: none"><li>Values personal freedom</li><li>Is skeptical of mandates</li><li>Does his own research on vaccines</li></ul> | <br><b>Current medications</b> <ul style="list-style-type: none"><li>None</li></ul> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Jackson's Exam Room

SELECT  TO ANSWER EACH QUESTION. SELECT  TO REVIEW THE QUESTIONS YOU HAVE ALREADY ANSWERED.



Emma's Exam Room Jackson's Exam Room  
Waiting Room Miguel's Exam Room

CLICK  TO GO BACK TO ROOMS YOU HAVE VISITED

Enter  
Jackson's Room

The background is a dark blue wall with several light blue papers pinned to it. A black lamp with a yellow glow hangs from the top. A red string is strung across the wall, connecting various points. On the left, a paper shows a hand skeleton, and a set of keys is pinned to it. In the center, a large green title 'ESCAPE ROOM' is displayed. Below it, a purple box contains the text 'FLU VACCINES & THE 65+ PATIENT'. At the bottom, a green button with the word 'PLAY' is visible. On the right, a paper shows a human silhouette, and another paper at the bottom right shows a stomach diagram. A paper at the bottom left shows a virus icon.

# ESCAPE ROOM

FLU  
VACCINES  
& THE 65+  
PATIENT

PLAY



You're about to open the doors of your pharmacy, and it's going to be a busy one. Four rooms, a lot of visitors, and a lot of questions. Work out the answers, find the hidden items, and collect the keys as you go. Scan the QR code to begin!

**OPEN**

[www.escaperoom.unbiasedscience.com/flu-vaccine-65](http://www.escaperoom.unbiasedscience.com/flu-vaccine-65)

# IN A GAMIFIED ESCAPE ROOM...

- Practice makes progress
- It's okay to be wrong
- Low-stakes environment
- Real scenarios



Updated for the  
'26-27 Flu Season

## Flu Vaccines & Children

Virtual Escape  
Room for Clinicians



## Flu Vaccines & The 65+ Patient

Virtual Escape  
Room for Clinicians



## COVID-19 Vaccine

Virtual Escape Room  
for Pharmacists



# HELP PEOPLE BRING THE SCIENCE BACK TO THEIR CIRCLES

## THE SEED OIL CONVERSATION



**AUNT SUSAN:**

Don't eat those green beans! They're cooked in SEED OILS! I saw on TikTok that seed oils cause inflammation and heart disease!



**YOU**

Oh, I saw those videos too! They really make it sound scary. It's great that you care so much about your food and health. But here's what's interesting - massive studies following hundreds of thousands of people show that seed oils actually LOWER bad cholesterol when they replace butter or lard. And this actually improves heart health! The major health organizations all agree on this after reviewing decades of data.



## THE VACCINE CONCERNS CONVERSATION GUIDE

Setting: Your coworker Jamie mentions he's worried about "what's really in vaccines" after seeing some concerning posts online. Some of his worries include:



- Antibiotics in vaccines
- Fetal cell lines
- DNA contamination/integration
- Aluminum salts
- Too many, too soon
- "Natural immunity" is better

Here's how you might approach the conversation...

## THE HPV VACCINE CONVERSATION



**MICHELLE**

The doctor wants to give Emma the HPV vaccine, but she's only 11! Isn't HPV a sexually transmitted infection? Why would my child need this now?

**YOU**

I had the exact same reaction when my pediatrician brought it up! It seemed so early. But my pediatrician explained that the vaccine works best when it's given before any exposure to the virus, which means way before sexual activity starts. And the reality is, we don't get to control when that happens. About half of all new HPV infections occur in people between 15 and 24. It's not about what your 11-year-old is doing now - it's about protecting her from cancer for the rest of her life.



## THE VITAMIN K SHOT CONVERSATION



**SANDRA**

I keep seeing stuff online about the vitamin K shot. Why do they want to give my baby a shot right after birth? It feels like so much so soon.

**YOU**

I totally get that feeling - but it sounds scarier than it is! Babies are actually born with dangerously low levels of vitamin K, which helps blood clot. Very little passes through the placenta during pregnancy, and breast milk doesn't have much either.

Without enough vitamin K, babies can have serious bleeding - even in the brain - in the first 6 months of life. The shot just gives them the vitamin their little bodies need but didn't get enough of yet.



## THE MMR CONVERSATION

Setting: Your friend Lisa just had her second baby. You're at a coffee playdate and she brings up vaccines.



**LISA**

I've been doing so much research on the MMR vaccine and I'm really torn. I saw that documentary about autism, and there are all these stories in my mom groups about vaccine injuries. I just want to do what's best for my baby.

**YOU**

Oh, mama, I totally get it - you want to protect your little one! That's what makes you such a good mom. Can I share what helped me feel confident about my decision?...The doctor who started the autism scare actually lost his medical license because he faked his data. Since then, scientists have not found any evidence to support his claims.



## THE FLU VACCINE CONVERSATION

Setting: You're grabbing lunch with your friend Mark who mentions flu season is ramping up.



**MARK**

My doctor keeps pushing the flu vaccine but I'm not getting it. The ONE time I got the flu vaccine, I got the flu! Every year I skip it, I'm totally fine.

**YOU**

Oh man, that timing must have been so frustrating! Here's what probably happened, though - it takes about 2 weeks for the vaccine to kick in, so you might have already been exposed. Or you might have caught a different virus that felt like flu. The vaccine, literally cannot give you the flu because it's either a dead or weakened virus, or just a piece of it. But I get why that experience would make you skeptical!



# MISINFORMATION STARTS WITH A *FEELING*

One post. A shocking claim. A “study.” A quote from a doctor. Your stomach drops. **That feeling is normal. In fact, people who spread false health claims count on it.**

They’re built to trigger emotional reactions before critical thinking.

## WHY THIS MATTERS

Misleading claims are everywhere! Once you recognize the patterns, you can confidently evaluate any claim.

## THE GOOD NEWS?

The tricks only work if you don’t see them coming!

## WHAT YOU CAN DO

- **Talk with your child’s healthcare team.** If a claim online concerns you, bring it up.
- **Ask questions.** You will not be judged or labeled as anti-science.
- **Pause before you share online or with other people.**



# 8 SIGNS A HEALTH CLAIM ISN'T TRUSTWORTHY

AM I BEING OFFERED A  
SIMPLE FIX TO A COMPLEX  
PROBLEM?

**Watch for:**  
*Oversimplification*

IS IT TRENDING FOR  
EVERYONE, OR JUST ON MY  
FEEDS?

**Watch for:**  
*Echo chambers*

IS THIS CLAIM TRYING  
TO SCARE OR INFORM ME?

**Watch for:**  
*Emotional manipulation*

DOES IT USE UNCERTAINTY  
TO DISMISS THE SCIENCE?

**Watch for:**  
*Exploiting nuance*

DOES IT CLAIM TIMING  
PROVES CAUSATION?

**Watch for:**  
*Coincidental timing*

IS SOMEONE PROFITING  
FROM THIS CLAIM?

**Watch for:**  
*Conflicts of interest*

WHERE DID THIS  
INFORMATION COME FROM?

**Watch for:**  
*Fake experts*

COULD THIS HAVE BEEN  
GENERATED BY AI?

**Watch for:**  
*Unverified content*

# What's the Risk?



Encephalitis (brain swelling)  
from measles infection  
(all ages)

VS



Encephalitis (brain swelling)  
from MMR vaccine  
(ages 12 months - 7 years)

We built a free, interactive  
*What's the Risk?* tool because  
risks are easier to understand  
when you can see them.

Both sound rare,  
but one is actually  
**1,000x the other.**

100

encephalitis from measles  
per 100,000 people

0.1

encephalitis from vaccine  
per 100,000 people



EVIDENCE-BASED RISK VISUALIZATION

## What's the Risk?

RSV Complications (Children)

Measles Complications

RSV Complications (Adults)

VS

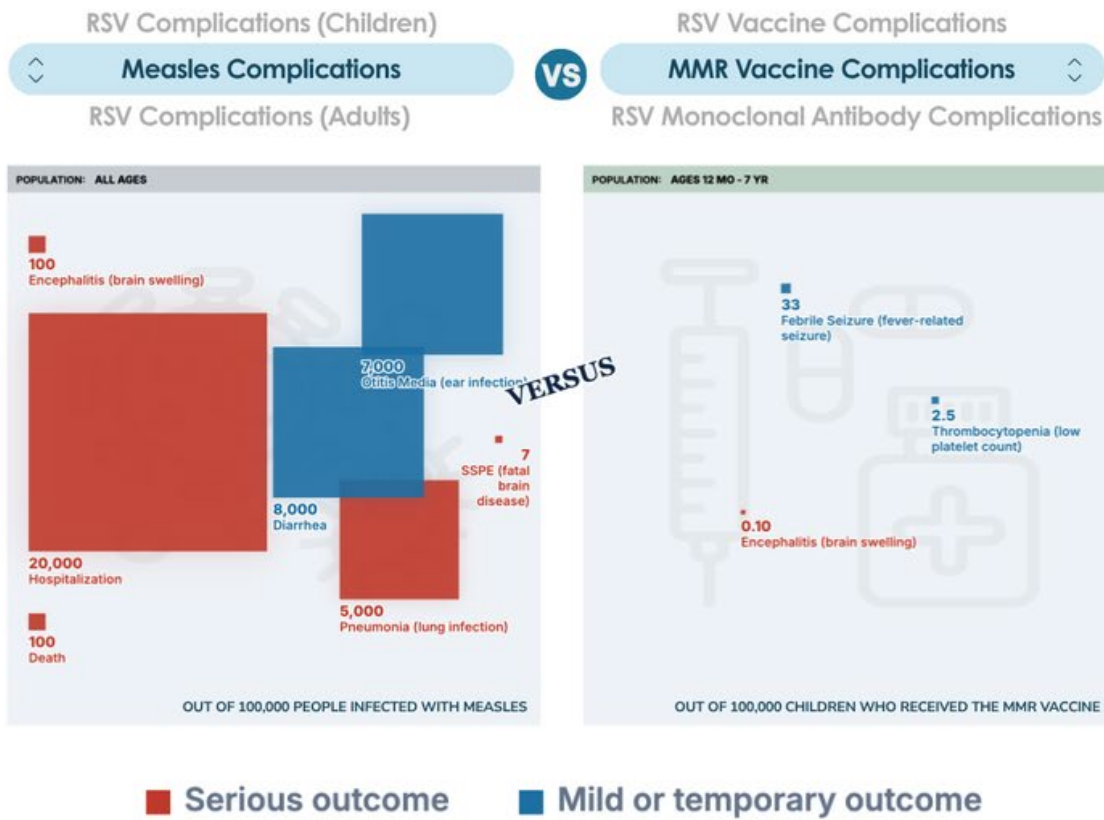
RSV Vaccine Complications

MMR Vaccine Complications

RSV Monoclonal Antibody Complications

COMPARE

# How do complications of measles and MMR stack up?



Use this tool to compare vaccine risks to the  
diseases they prevent, side-by-side, before  
making important health decisions.



# ARE YOU READY FOR FLU SEASON?

Learn how flu could affect you and what to ask your clinician.

**TAKES JUST A FEW MINUTES.  
NO APP OR SIGN-IN NEEDED**

TRY IT AT:  
**ReadyForFluSeason.org**

Built by scientists and clinicians at the  
**CENTER FOR UNBIASED SCIENCE & HEALTH**



OR SCAN TO START

2:42 53

readyforfluseason.org

## Have you gotten a flu vaccine this season?

☐ No, and I don't plan to

☐ No, but I plan to get one

☐ Yes, I have already received one

☐ I'm not sure

Continue

**CENTER FOR UNBIASED SCIENCE & HEALTH**

Privacy Policy

2:43 53

readyforfluseason.org

## Your Risk

*Screenshot this to take a copy home with you.*

**Why your risk is higher**  
**You're 50 or older and have more than one health condition**

Around 50, the risk of a serious flu infection starts climbing. Each of your health conditions adds to that, and together they raise it further.

- Flu raises the risk of a heart attack in the weeks after infection, and that risk is highest for people who already have heart disease.
- Flu makes blood sugar harder to control, and people with diabetes are hospitalized at several times the rate of people without it.
- Certain blood disorders, such as sickle cell disease, can make flu more likely to cause serious complications, including breathing problems and hospitalization.

About 9 out of 10 people who end up in the hospital from the flu have at least one health

# QUESTIONS?

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izzy@unbiasedscience.com

Follow us on social media: @unbiasedscipod

Website: unbiasedscience.org

*“Connection before correction. People don't change their minds because you've out-argued them. They change when they feel heard first.”*