

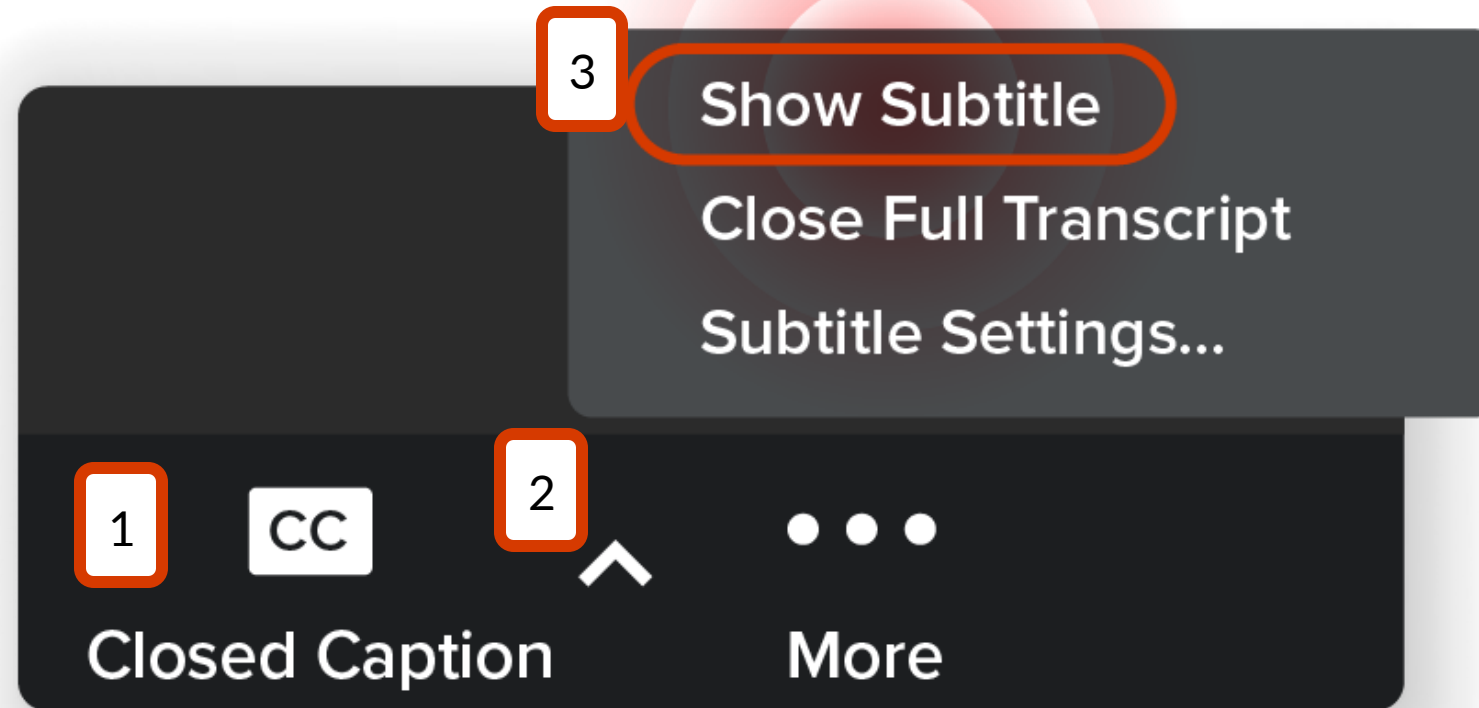
The Science of Vaccine Communication: Research to Practice

VACCINE CONFIDENCE WEBINAR SERIES
SEPTEMBER 18, 2026



Association of
Immunization
Managers

Closed Captions



Housekeeping



All registrants will receive an email shortly after the event with today's webinar slides and resources.



The recording, resources, and slides from today's webinar will be available on AIM's [Vaccine Confidence Toolkit](#) in the coming weeks.



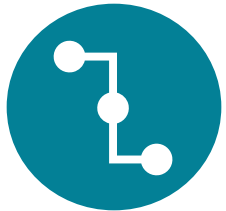
Add any questions you have for our speakers to the Q&A box, and they will be addressed at the end.



Take a few moments to answer the survey questions that pop up in your browser after the webinar.

AIM Vaccine Confidence Toolkit

Designed to equip AIM members and their staff with the tools and information necessary to promote vaccine confidence across the nation and its territories.



Connecting the Dots: one-page guide for key resources on effective communication, vaccine access, and addressing mis/disinformation.



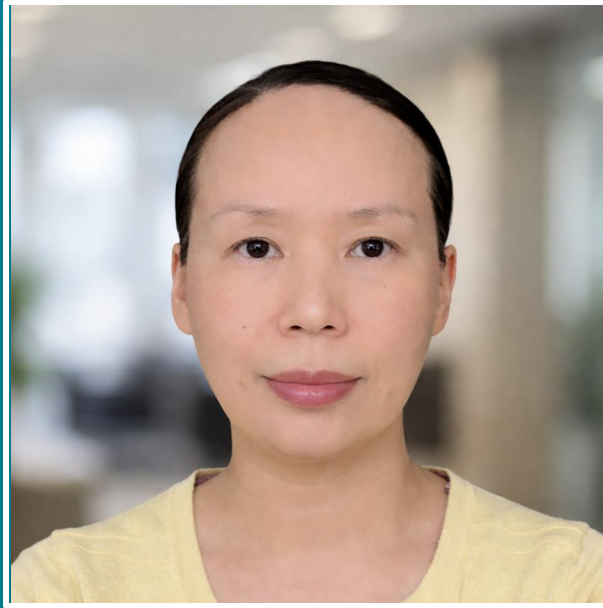
Webinar Series: recordings and resources featuring evidence-based strategies for promoting vaccine confidence.



Resource Guide: lessons learned from programs and stakeholders experienced in addressing vaccine hesitancy in their communities.

[Visit the toolkit!](#)

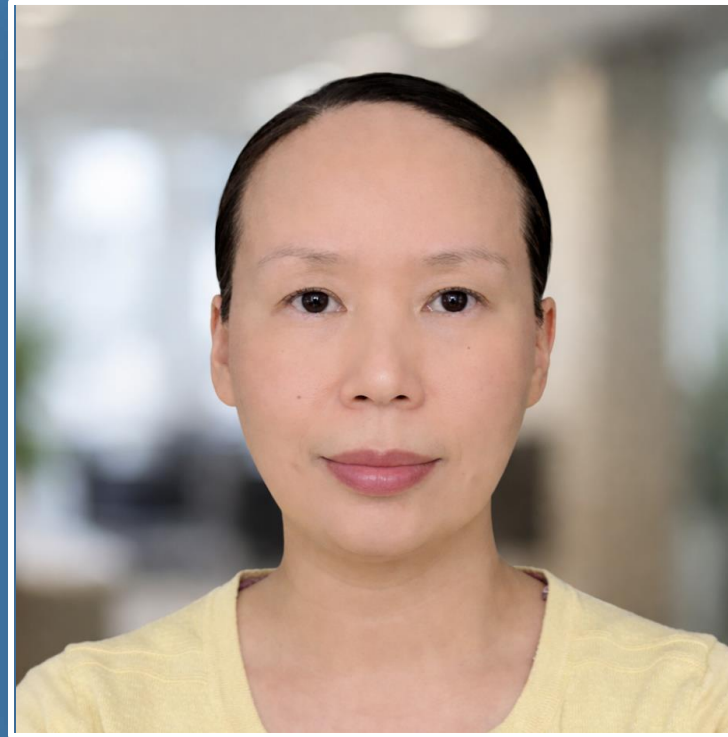
Speaker Introductions



Xiaoli Nan, Ph.D.
Professor
University of Maryland



Elisabeth Marnik, Ph.D.
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The Evidence Collective



Xiaoli Nan, Ph.D.
Professor, Department of Communication
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VACCINE COMMUNICATION AT A CRITICAL JUNCTURE

What we know, what has changed, and what comes next

Xiaoli Nan, PhD
University of Maryland

The Science of Vaccine Communication: Research to Practice
Association of Immunization Managers (AIM) • September 2026

This presentation is partly based on: Nan, X. Vaccine communication: a critical review of foundations, challenges, and future directions. npj Vaccines 11, 157 (2026).



Vaccine hesitancy



The Strategic Advisory Group of Experts (SAGE) on Immunization (2015):

“Delay in acceptance or refusal of vaccines despite the availability of vaccination services”

Why people hesitate



SAGE 3Cs

Betsch et al. (2018) 5Cs

Betsch, C. et al. Beyond confidence: Development of a measure assessing the 5C psychological antecedents of vaccination. PLOS ONE 13, e0208601 (2018).

Four lessons from the evidence base

Framing + storytelling

Framing and narratives can influence attitudes and risk perceptions, but average effects are often modest and depend on audience, medium, and context.

Trusted messengers

Healthcare providers remain among the most trusted vaccine information sources. Strong, clear—and often presumptive—recommendations can improve uptake.

Transparent communication

Acknowledge uncertainty and risks. Transparency can sometimes reduce short-term acceptance, but strengthens trust; vague reassurance can backfire.

Community engagement

Co-design with target populations can increase relevance, acceptability, and trust—especially in communities with historical reasons for distrust.

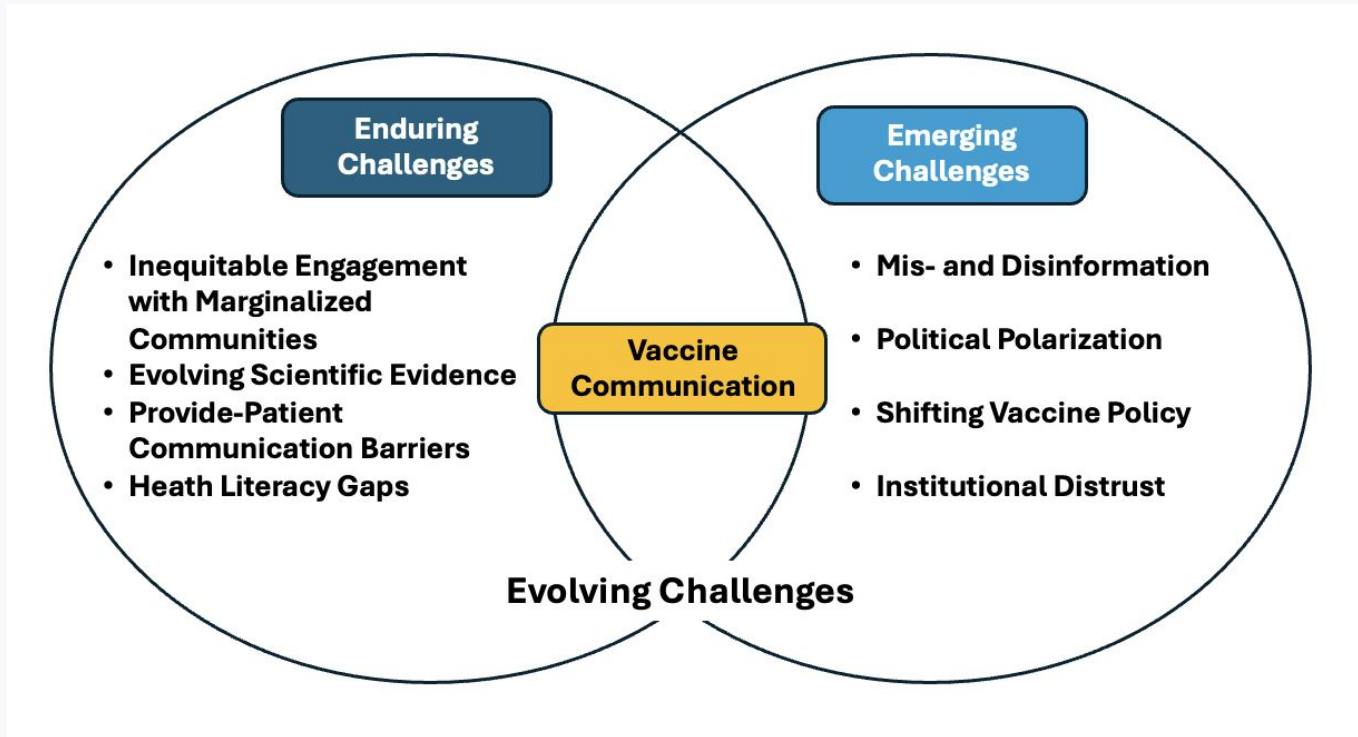
Context matters

Source matters

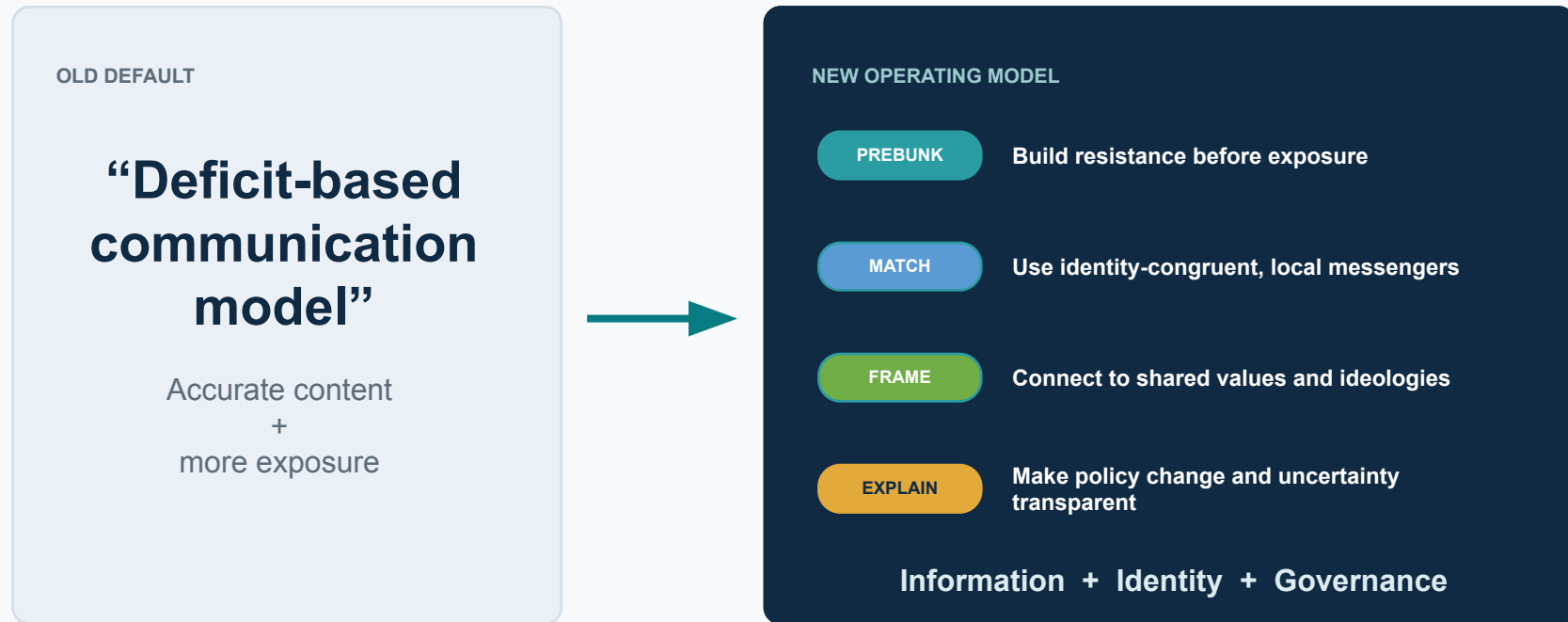
Transparency matters

Partnership matters

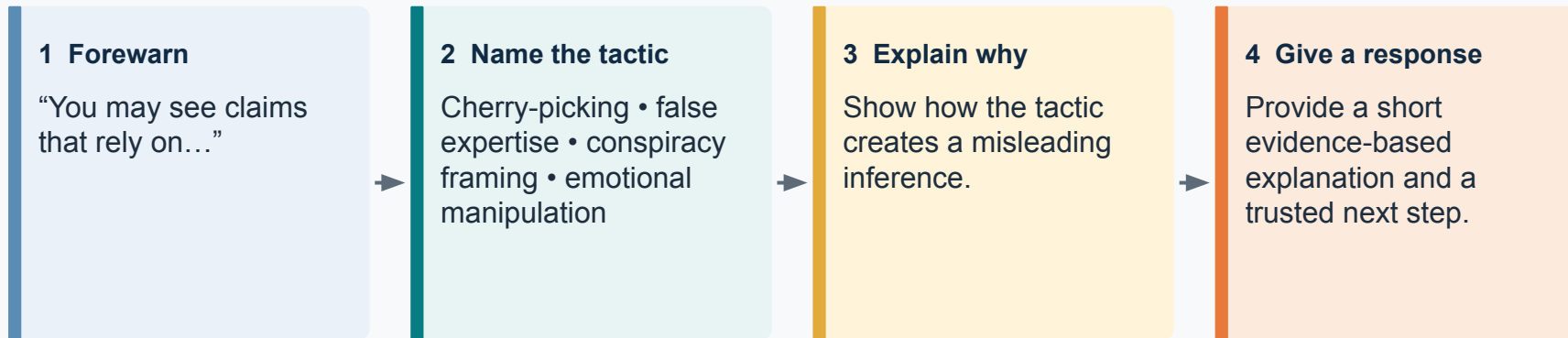
Emerging challenges in vaccine communication



Communication strategies to address emerging challenges



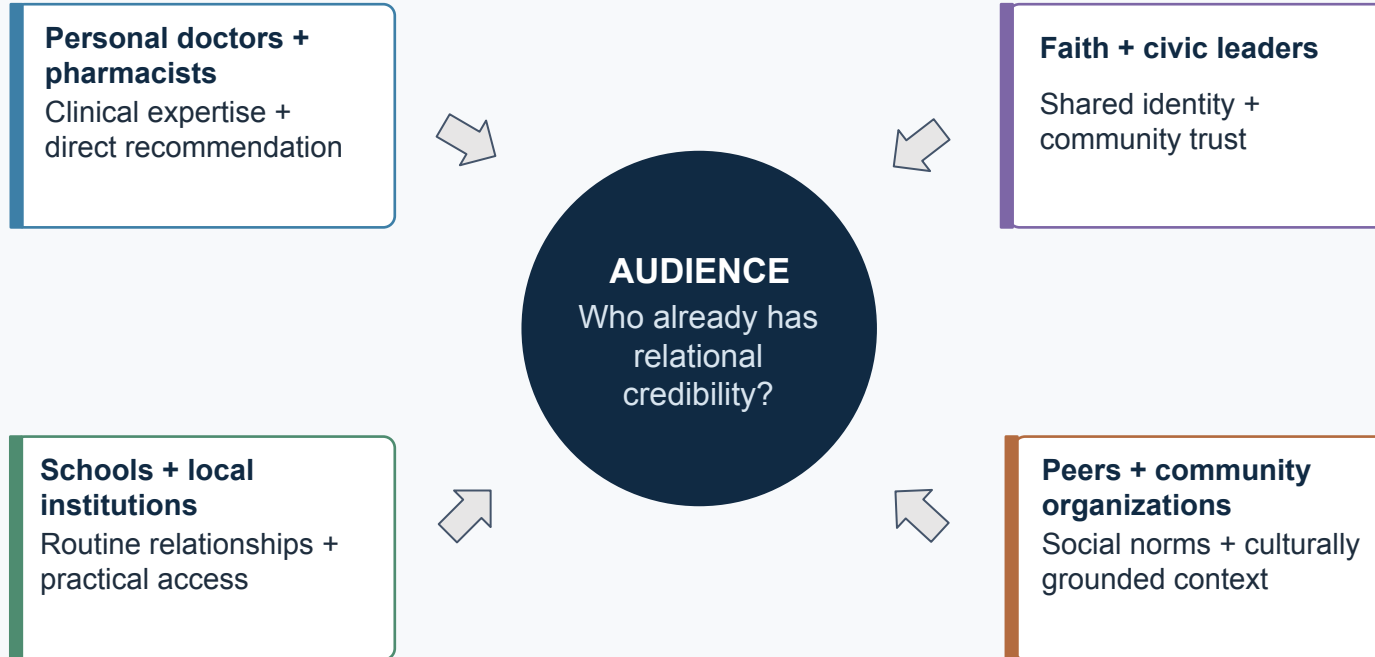
Prebunk before you debunk



E.g., van der Linden, S., Roozenbeek, J. & Compton, J. Inoculating against fake news about COVID-19. *Front. Psychol.* 11, 566790 (2020).

Program use case: build a reusable “misinformation playbook” around recurring tactics before the next controversy or recommendation change.

Trust is local, relational, and audience-specific



Design principle: do not ask “Who is nationally trusted?” Ask “Who is trusted by this audience for this decision?”

Frame vaccination through values people already hold



Design principle: keep the evidence constant; adapt the value bridge to reduce defensive processing and increase openness.

Treat policy change as a communication event

WHAT CHANGED

Name the recommendation, schedule, eligibility, or process change precisely.

WHAT DID NOT

Clarify continuity in evidence, safety systems, and unaffected recommendations.

WHY IT CHANGED

Explain the decision criteria, evidence, and role of uncertainty.

WHAT HAPPENS NEXT

Give concrete clinical guidance, access steps, and where updates will appear.

Transparency provides a clear account of how decisions are made under uncertainty.

Four promising levers for immunization programs

SENSE

Social listening

Detect emerging concerns, rumors, information voids, and shifts in sentiment early.

SCALE

AI + LLMs

Generate, tailor, translate, and support conversational responses—under human oversight.

ACT

Behavioral nudges

Use reminders, defaults, and ownership framing to reduce friction and close intention–behavior gaps.

REACH

Cross-sector partnerships

Coordinate public health, healthcare, community organizations, and technology platforms.

Use technology to increase speed, reach, and adaptability, without outsourcing judgment, ethics, or trust.

AI can expand capacity—but it should not become the authority

PROMISE

- ✓ 24/7 conversational access
- ✓ Rapid tailoring by concern / language / literacy
- ✓ Drafting + translation at scale
- ✓ Consistent responses to common questions
- ✓ Faster synthesis of social-listening insights

GUARDRAILS

- ! Human review for clinical accuracy
- ! Source grounding + version control
- ! Bias / equity testing across groups
- ! Privacy and data minimization
- ! Escalation path for nuanced or high-risk questions

Human expertise should remain the accountable decision layer.

FIVE TAKEAWAYS FOR IMMUNIZATION MANAGERS

1

Invest in trusted relationships

Messenger fit can outweigh message polish.

2

Build shared values in messages

In a polarized environment, values, more so than information, drive vaccination decisions.

3

Be proactive, not merely reactive

Prebunk, listen, and explain policy change early and transparently.

4

Use innovation as an amplifier

AI, listening, and nudges should strengthen (not replace) human trust.

5

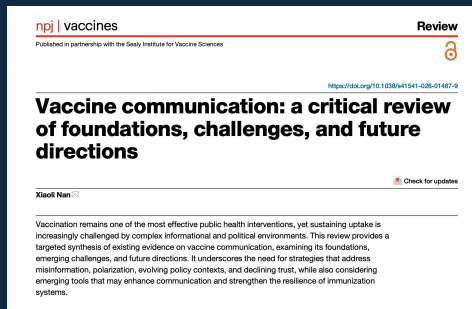
Build communication resilience

Embed communication across planning, rollout, monitoring, and crisis response.

Beyond messages. Build a resilient communication system.



Nan, X. Vaccine communication: a critical review of foundations, challenges, and future directions. npj Vaccines 11, 157 (2026).



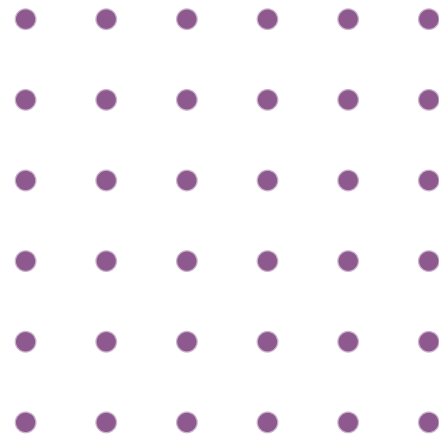
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Elizabeth Marnik, Ph.D.
Science Communicator, Executive Director
The Evidence Collective

Communicating about vaccines in a changing landscape



Elisabeth Marnik, PhD | Executive Director, The Evidence Collective



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Science & Medicine Creators Uniting for Public Health.



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30+ Subject Matter Specialists · 11B+ Reach over last year · 10M+ Combined Social Followers

Increase Speed

Rapid-response collaboration on emerging public health topics to equip trusted messengers to **prebunk** and address concerns.

Improve Coordination

Experts and creators working in silos produce fragmented, confusing messages. We coordinate across disciplines to speak with one clear voice.

Break Echo Chambers

The communities most impacted by false information don't always engage with institutions. We convene other trusted voices to reach them.

Close the skill gap

We train experts to turn solid evidence into clear, compelling messages that drive real engagement.

Supporters:



Putting evidence in the hands of trusted messengers
with communication grounded in curiosity and
empathy

**If we want to better reach people,
we must begin with understanding where
we are today.**

The "4 in 10" Reality

~4 in 10

Americans approve of how RFK Jr.
is handling vaccine policy

- For millions, recent disruptions feel like long-awaited accountability
- People see institutions that stopped listening being forced to answer

The Paradox We're Living In

More

information at our fingertips
than ever before

Declining

trust in science and experts

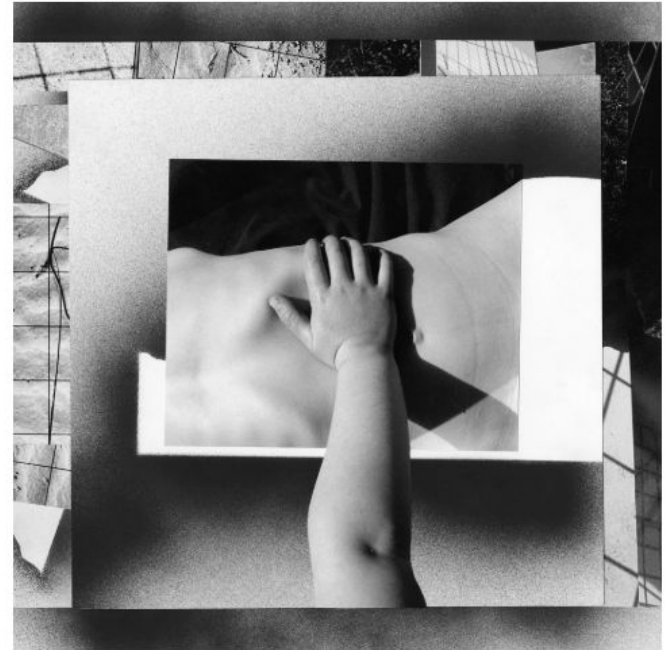
The problem isn't simply access to evidence, because that isn't enough to reach people on its own.

**I grew up in a household
that didn't trust science
– including vaccines**

OPINION
GUEST ESSAY

I Grew Up Unvaccinated. Now I'm an Immunologist.

Feb. 27, 2026



Vanessa Woods

Empathy & curiosity first

In a resistant conversation, information isn't the problem.

WHAT WE OFTEN DO

Launch with evidence, statistics, corrections

WHAT THE BRAIN HEARS

You are wrong. I am the authority.

WHAT ACTUALLY HELPS

Help the person feel heard first. People trust people. Be curious.

Stories + Evidence



Evidence gives us information

Data alone doesn't always move people. It can be too abstract, feels impersonal and hard to understand its value.

Stories can help create meaning

story is what makes people care and act.

The anti-vaccine movement uses story to spread false information – and it's personal, emotional, character-driven.

We can include both evidence and a narrative that helps carry it.

What is data storytelling?

At its core, data storytelling is the ability to transform data into visual, written, and/or spoken narratives to enhance understanding and inspire action.



What is data storytelling?



In public health, a well-curated data narrative will:

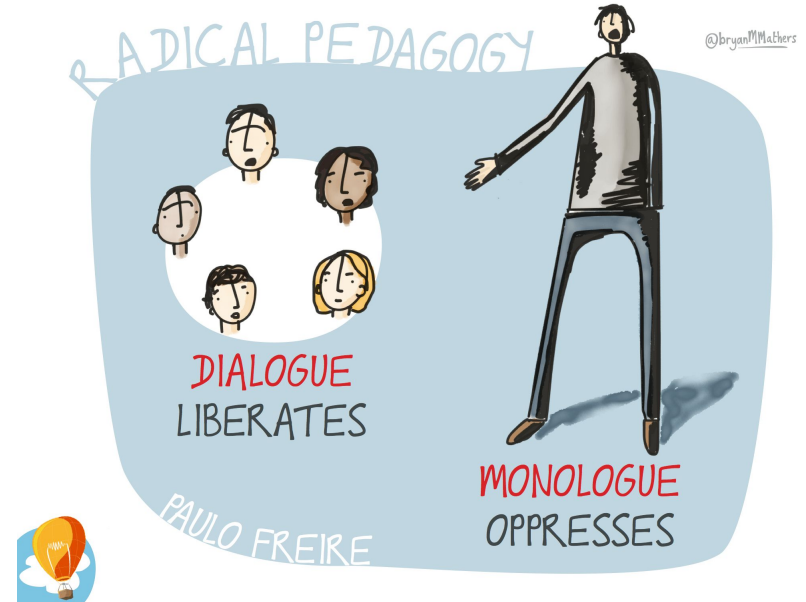
- Make data and information feel accessible and relevant
- Help people make sense of their personal experiences and the experiences of others
 - Nurture empathy
- Challenge sweeping generalizations about
 - A population, behavior, or event by providing nuance and context
- Include an implicit or explicit call to action

Who?

Who is your audience of interest?

Who is doing the communicating?

...And how is power acknowledged, managed, and ***shared*** between speaker and audience?



Reference: [Bryan Mathers](#)

What if the *Who* Doesn't Involve You At All?

Sometimes, it's not about *how* the story is told.

It's about who is doing the storytelling, and whether they have a pre-established and positive relationship with the audience. This is where **Cultural Brokers/Trusted Messengers** are essential!

Adjusting the Same Message for Different Audiences

The data/core information stays the same, but the message framing should change depending on who you are communicating too:

Each audience has different:

- Goals
- Beliefs
- Values
- Fears
- Knowledge gaps

We need to keep our audience's in mind when communicating.

Caregivers

I want my loved ones to be healthy and I don't want to do anything that could hurt them.

Clinicians

I want to give the best and most accurate information to my patients.

Politicians

I want to represent the desires of my constituents while being thoughtful of the goals of other stakeholders.

Agency leadership

I want to make sure my employees are meeting expectations and our overall mission.

Narrative Structure: The Anatomy of a Data Story

1. Situation
2. Tension
3. Insight
4. Resolution
5. Action



Watch your language:

Technical Accuracy vs. Plain Language

Plain language is not “dumbing it down.” It is opening the door.

- **Example:**

- Technical:

- “Incidence was higher among those unvaccinated”

- Plain language:

- “New cases were highest among people who were unvaccinated.”

Words that can be misunderstood & alternatives

Word / Phrase	What people hear	What should be used instead
Works	"This will fully stop the bad thing from happening."	"Reduces risk," "lowers the chance," "makes severe outcomes much less likely."
Effective	Guaranteed protection. I won't get sick.	"Highly protective," "provides strong protection against severe disease." "works by reducing risk of complications"
Immunity	"A force field that prevents infection."	"Immune protection," "immune response," "trained immune system."
Prevents	"This will never happen."	"Reduces the likelihood," "helps prevent," "lowers transmission risk."
Safe	"Zero risk, nothing can go wrong."	"Very low risk," "benefits greatly outweigh risks," "well-studied safety profile." "safer than diseases they prevent"
Protection	"I can't get sick at all."	"Protection against severe illness," "protection against hospitalization and death."
Misinformation	"You're saying I'm stupid or lying." Censorship	"Incorrect information," "inaccurate claim," "not supported by evidence." "false" "lies" "rumors"

Credit: Kristen Panthagani, MD, PhD. You Can Know Things.

The “So What” Test

After every data point or piece or information, ask:

- *“So what does this mean for this audience?”*

Example:

- Data point: STI rates increased among adolescents
 - So what for clinicians?
 - Screen and counsel.
 - So what for schools?
 - Strengthen prevention education.
 - So what for parents?
 - Create space for honest conversations.
 - So what for policymakers?
 - Fund youth-centered services.

The Role of Uncertainty

- A strong story does not hide uncertainty. It explains it.
 - What we know
 - What we do not know yet
 - What we are watching
 - What action is still reasonable now



Prebunk Strategies

Timing of information matters – for example we can get ahead of false information about vaccines while TTC and in pregnancy



Common misleading tactics

Fallacy	What it sounds like	Why it's misleading and how to prebunk
Correlation vs. Causation	"Autism rates increased with increased use of vaccines containing thimerosal."	Two things happening simultaneously don't mean one caused the other. Autism diagnoses continued rising even after thimerosal was removed from childhood vaccines.
Cherry-Picking Evidence	Citing one flawed study while ignoring dozens of high-quality studies showing the opposite.	Science relies on the weight of evidence, not individual studies, especially unvetted preprints.
Moving the Goalposts	When one safety concern is debunked, immediately shifting to a new concern without acknowledging the previous claim was wrong	This prevents productive discussion and suggests the conclusion (vaccines are dangerous) was predetermined.
False Balance	There are concerns on both "sides" when presenting one flawed study against the overwhelming scientific consensus.	Not all viewpoints deserve equal weight - evidence quality and consensus matter.
Appeal to Fear	Dramatically overstating small, well-understood risks while ignoring much larger disease risks	Fear-based messaging prevents rational risk assessment. Contextualize the information presented more globally, e.g., rather than allowing a discussion to focus on a singular risk of the vaccine, compare it to the diseases it prevents.

Possible steps forward

01

Coordinate messaging and messengers

Fragmented expert voices are a gift to bad actors. Build the coalition before you need it.

02

Protect and resource your trusted messengers.

They need support

03

Invest in rapid-response capacity and prebunking

The attack moves fast. Your response needs to too. Many times we can predict common misinformation and get ahead of it.

04

Build outside the usual public health bubble.

Faith communities, coaches, school nurses, parent influencers — they're already trusted. Partner with them.

05

Pair data with a story.

Stop leading with statistics. Lead with stories. Back it up with evidence.



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How we help:

- Access to our network of experts and communicators
- Partnerships on shared topic interests
- Topic and event briefs
- Webinar and trainings

Supporters:



Contact Us

Website:

evicollective.org

Email: liz@yle.health



Partner Resources

- The Evidence Collective
 - [Your Starter Guide to Trustworthy Medical Evidence Online](#)
 - A Guide to Hard Conversations [PDF]
- Children's Hospital of Philadelphia
 - [Vaccine Education Center](#)
- Public Health Communications Collaborative
 - [Trending Topics and Latest Resources](#)
 - [Public Health Communication Tools](#)



2025/2026 State Legislative Report Webinar

- Monday September 29th at 12:00PM EST
- Review key findings and cross-state legislative trends
- Highlight notable policy developments and bill outcomes
- Learn how to use the report's detailed resources and appendices
- Bring your questions for a live discussion!
- https://us06web.zoom.us/webinar/register/_/WN_ZAPkc9YIRteqS5-MG0pILw#/registration



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Thank you!



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