A photograph of three healthcare professionals sitting in a circle in a clinical setting, engaged in a conversation. The woman on the left is wearing a grey cardigan over a striped shirt. The man in the center is wearing a light blue button-down shirt and jeans. The woman on the right is wearing teal scrubs and has a stethoscope around her neck. They are all looking towards each other, suggesting a collaborative discussion.

# Conversations that Count: Empowering Nurses to Discuss Vaccines and Health Misinformation

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# Disclosures

- This nursing continuing professional development activity was approved by Montana Nurses Association, an accredited approver with distinction by the American Nurses Credentialing Center's Commission on Accreditation.
  - Criteria for successful completion includes attendance for the entire activity and completion of an evaluation form.
  - Contact hours can be earned through December 31, 2025.
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# Introductions

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1. Scan QR code with phone or select link in chat
2. Please post your responses on the Padlet board
  - How long have you been in nursing?
  - What is your current role or employment setting?



# Today's Agenda



Identify and Address Health Misinformation



Examine Current Evidence on Vaccines



Explore Evidence-Based Vaccine Communication Strategies



**As licensed nurses, we have:**

- \*Scope of Practice
- \*Code of Ethics
- \*Ethical Principles
- \*ANA Position Statements

We have an obligation to our patients, families, and community in which we work.

We are **role models** for shared clinical decision making.





We live in an era of **information overload!!**


When it comes to our health, having credible health information is crucial.

False or misleading health information can cause serious harm.

**Health Misinformation**  
is information that is false,  
inaccurate, or misleading  
according to the  
best available evidence  
at the time.







Nurses need the tools and knowledge to address **health misinformation** effectively.

We want to ensure that individuals have access to accurate and reliable information.

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What types of **health misinformation** exist?

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**Mememes** - brief, colorful, eye catching, images, ideas, amusing, effective, and sharable

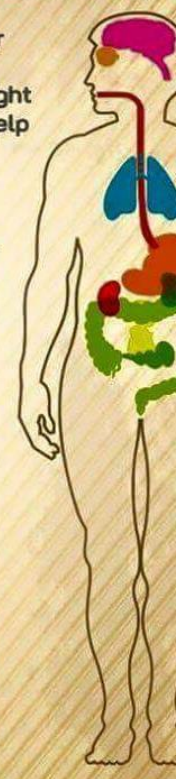


**NATURE'S** Fit

# 11 MOST POWERFUL ANTIBIOTICS

Our first line of defense against any illness or infection is your own immune system! These foods will super-boost your body's ability to fight off nasty bugs that come your way and will help keep you on top of your game all year long.

- APPLE CIDER VINEGAR
- GARLIC
- GINGER
- HORSERADISH ROOT
- ONION
- HABANERO PEPPERS
- OREGANO OIL
- TURMERIC
- ECHINACEA (HERB)
- RAW HONEY
- COLLOIDAL SILVER





**Websites** - that look professional  
(often designed to look like news sites)  
but the stories are false or misleading.

## **Sensational headlines!**

*Free Skin Care Products Made with Yams!*

*Stay Young Forever!*

*Better Than Botox!*

*No Need to Exercise or Eat Healthy!!!*



**Quotations** - where information may have been deleted or revised to change the meaning

"will increase your energy level"

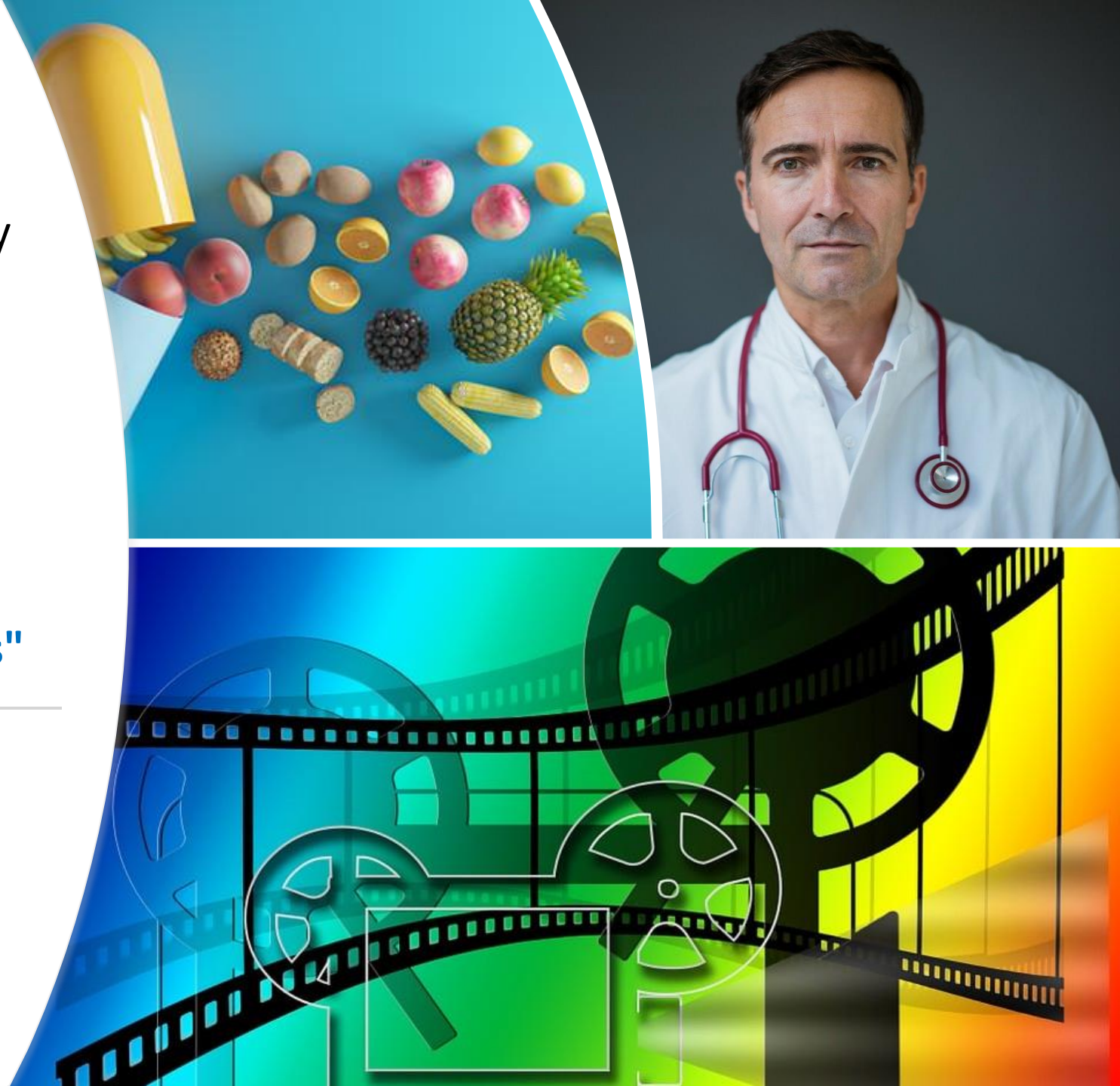
"will help you age slower"

"this product is endorsed by doctors"

---

**Old images**- that re-circulate as if they are recent. Appears credible!

**Videos** - that have been **edited** to change the meaning.







## Cherry-picked statistics -

Numbers that support what people want to state or argue, but without data and without context

---

## Misleading graphs or diagrams

"Snapshot of information"



Why is it so tempting to share health misinformation?

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1. We have **new information** to share

2. We want to **protect** the people we care about.

3. We want to **make sense** of the information or events





4. We want to **feel connected** to others.

We may gravitate toward people who believe the same things we do and then feel connected to them.

**This feeling of connection is incredibly powerful!**



# How People Make Health Care Decisions

1. Emotions
2. Time
3. Options
4. Social norms
5. Herd mentality
6. Social Determinants of Health





## Social Determinants of Health

- Where we live, work, spend time
- Housing
- Education
- Access to Health Care
- Uninsured or Underinsured
- Culture & Race
- Health Literacy/Information, media, civic literacy

## Broader set of forces and systems shaping everyday life and impacting our health

- Political, Economic, Social policies
- Social influence



**How can we determine what is true and credible health information?**

**Look for expertise.** Everyone may have an opinion, but not everyone's opinion is based on science and facts.

---







**World Health  
Organization**



**U.S. Department of  
Health and Human Services**

Enhancing the health and well-being of all Americans



**National Institutes of Health**  
*Turning Discovery Into Health*



**Western Plains**  
PUBLIC HEALTH

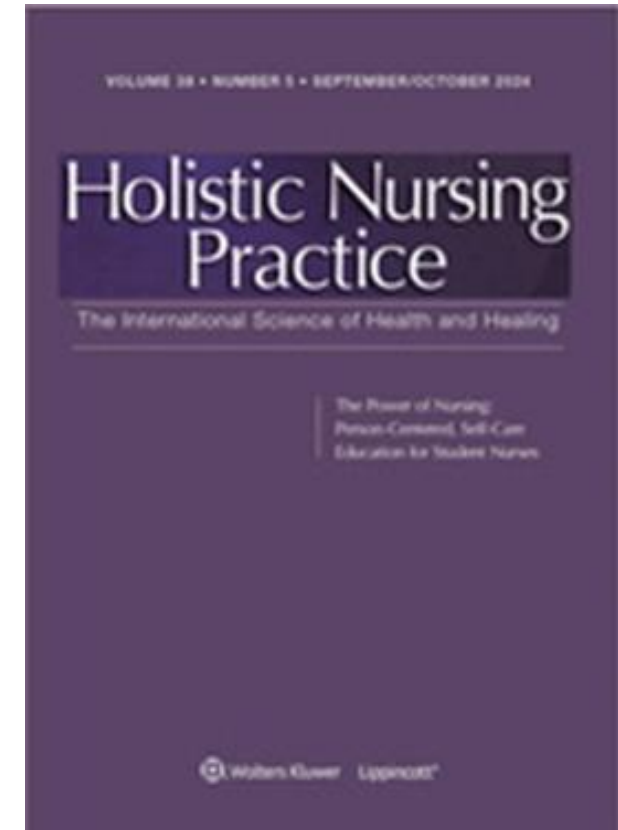


**Look for  
established  
institutions.**

NORTH  
**Dakota**  
Be Legendary.

Health & Human Services





Look for peer-reviewed journals,  
Databases – **CINAHL**  
Cumulative Index to Nursing and Allied Health Literature

review clinical studies, research in scientific journals



## Beware of commercial sites.

If a site is selling something, it has a financial stake in the public believing what the site is stating

---

Understand and identify bias

**"Confirmation bias"**



Consider the look and feel of a website.

Check the links. Credible websites will often link to credible and established institutions.

Check the dates! Data evolves as scientists learn more and as research advances.



**Every time you come across health related content that you are not sure about, take your time to evaluate it.**

**Checklist-** Office of the U.S. Surgeon General:  
A Community Toolkit for Addressing Health Misinformation





# Talking to Friends and Family About Health Misinformation



1. Listen
2. Empathize
3. Point to Credible Sources
4. Don't Publicly Shame
5. Use Inclusive Language



## 1. Fact

Lead with the truth, state the facts clearly. Do not try to refute the misinformation, just state what is true.



## 2. Warning

An explicit warning that misinformation is coming, which may contain a weakened version of the misinformation. Only repeat the misinformation once.



### 3. Fallacy

Explain why the misinformation is wrong and, as with prebunking, explain the specific misleading tactics being employed, or highlight the hidden motives of the authors of the disinformation.



### 4. Fact

Repeat the truth. This is crucial because the alternative correct information fills the mental 'gap' generated by the correction. Make the facts 'stickier' than the misinformation (see **Appendix 3** for tips).





## Instagram posts

stated on March 20, 2024 in an  
Instagram post

*"The reason they're trying to sit here and say everything causes heart attacks is because they're trying to cover up the side effects of the vax."*

# Sunbathing for just **ONE DAY** may increase your risk of heart disease - and stop the body fighting infections, study suggests

- Experts found going from no heat to moderate heat triggered worrying reactions
- ...this included a 10 percent rise in proteins linked to chronic inflammation
- **READ MORE:** Experts [warn against risky procedure](#) that changes eye color

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By [DAILYMAIL.COM REPORTER](#)

**PUBLISHED:** 16:23 EDT, 19 March 2024 | **UPDATED:** 10:17 EDT, 21 March 2024

**FACT**

**WARN ABOUT  
THE MYTH**

**EXPLAIN  
FALLACY**

**FACT**

"I can understand why you would be concerned after reading that. There's so much information out there, especially online, and it's hard to know what to believe."

"Clinical trials and ongoing monitoring have shown that COVID-19 vaccines are highly effective and generally safe for most people. Any side effects are typically mild and temporary, such as soreness at the injection site, fatigue, or mild fever. Serious side effects are extremely rare and are investigated by health authorities."

**FACT**

**WARN ABOUT  
THE MYTH**

**EXPLAIN  
FALLACY**

**FACT**

"A myth that was spread on social media claimed that a research study that found an increased risk for heart disease from sun exposure was being used as a cover-up for side effects of the Covid-19 vaccine."



**FACT**

**WARN ABOUT  
THE MYTH**

**EXPLAIN  
FALLACY**

**FACT**

"The subjects in the study about sun exposure were actually recruited before the Covid-19 pandemic began and before the Covid vaccine was even developed."

"That claim has no concrete evidence. Unfortunately, some people make claims like this to spread fear, which ultimately harms public health efforts to reduce the spread of communicable diseases."


**FACT**

**WARN ABOUT  
THE MYTH**

**EXPLAIN  
FALLACY**

**FACT**

"The truth is that Covid-19 vaccines are continuously monitored by several regulatory agencies to ensure safety and efficacy. When side effects are identified, they are reported and measures are taken to address them. "



What health-related  
misinformation has been  
shared with you recently by  
patients, friends, or family  
members?

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# Vaccine Hesitancy

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Reluctance or refusal to vaccinate despite availability of vaccines

WHO listed vaccine hesitancy as one of top ten threats to health worldwide in 2019.



As of September 12, the U.S. has seen 251 cases of measles in 2024.

HEALTH

# First SD measles case in nine years appears in Rapid City

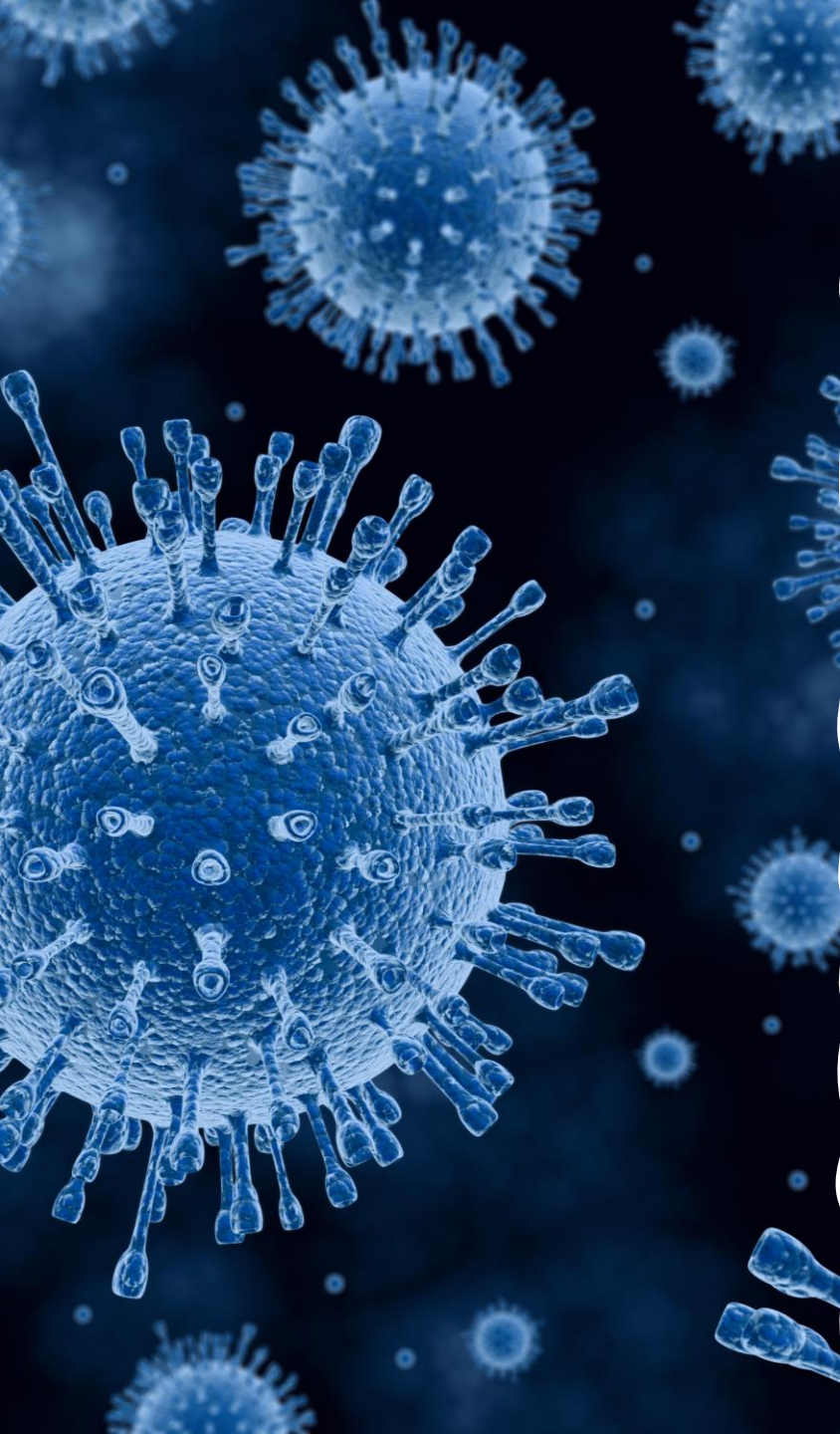
BY: MAKENZIE HUBER - JULY 18, 2024 5:16 PM



## As school nears, doctors worry about Minnesota's undervaccinated kids

Nearly all of the 34 Minnesota cases this year were in unvaccinated children, said Dr. Abe Jacob, a pediatrician with M Health Fairview

Aug 28



# Measles

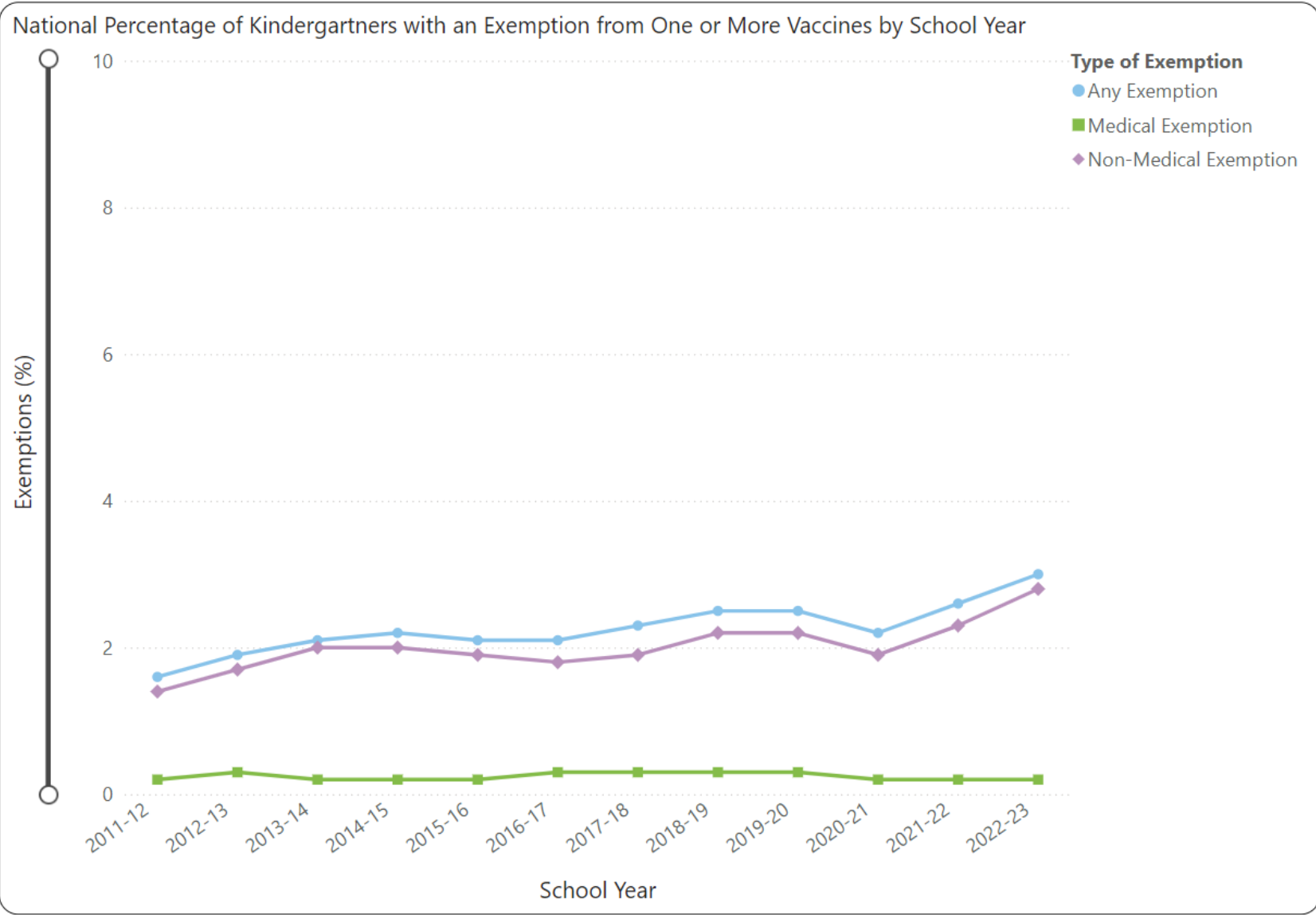
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95% vaccination coverage target

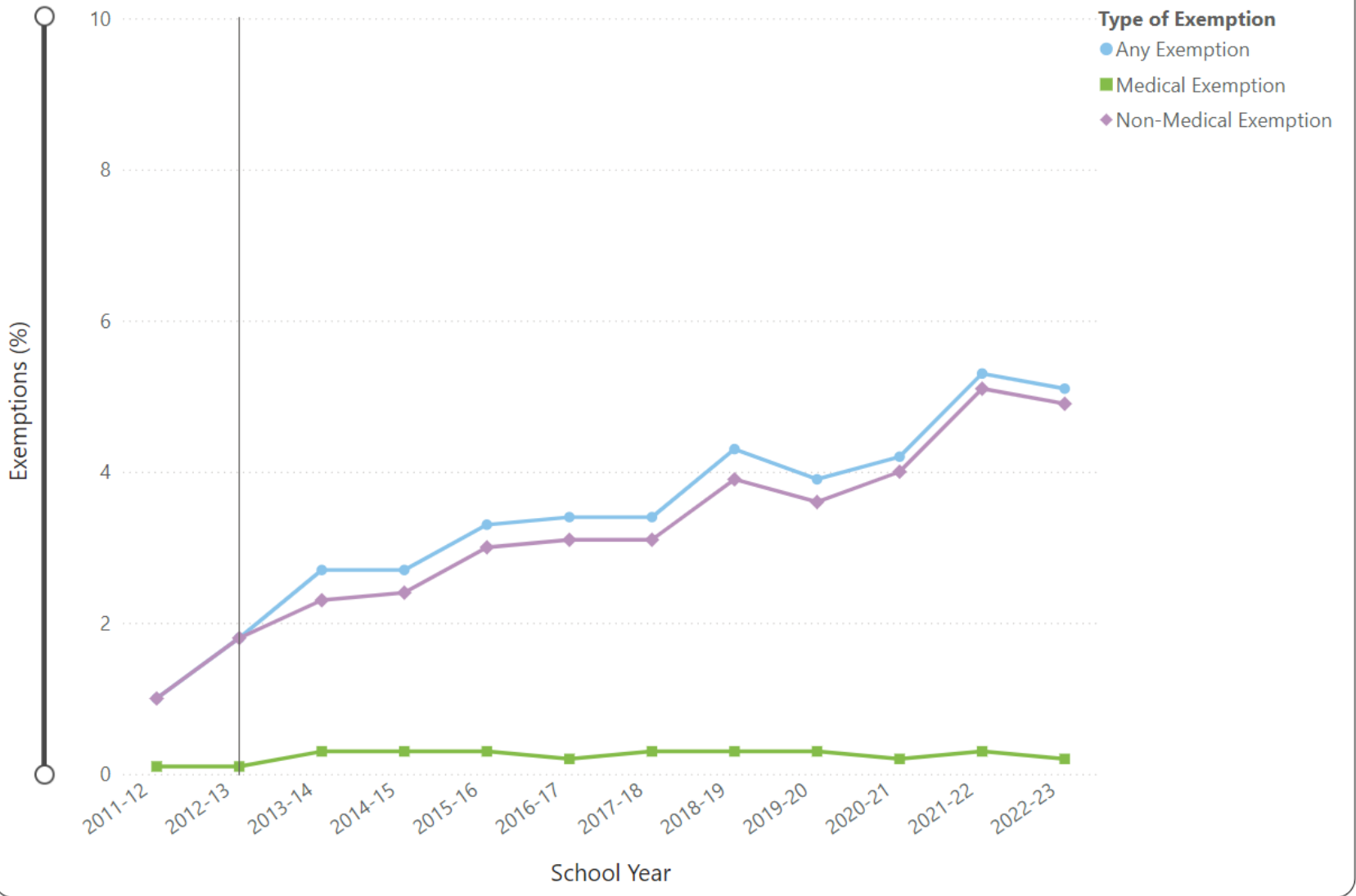
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ND's current rate among kindergartners = 91.22%





Percentage of Kindergartners with an Exemption from One or More Vaccines by School Year, North Dakota





# What can nursing do?

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1. Remind patients/families of the power to help protect
2. Educate patients/families about the risks and benefits of vaccines
3. Communicate clearly and effectively with patients and families about vaccines





**For 22 consecutive years, nurses have lead Gallup's annual ranking of professions for having high honesty and ethics!**

# Remind Patients About the Power to Help Protect

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Viruses and bacteria that cause vaccine-preventable diseases still exist and can be transmitted by unprotected persons

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Outbreaks of vaccine preventable diseases still occur

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Infection may lead to illness and complications, which can be serious and life-threatening

---

Vaccinations protect an individual AND those around them

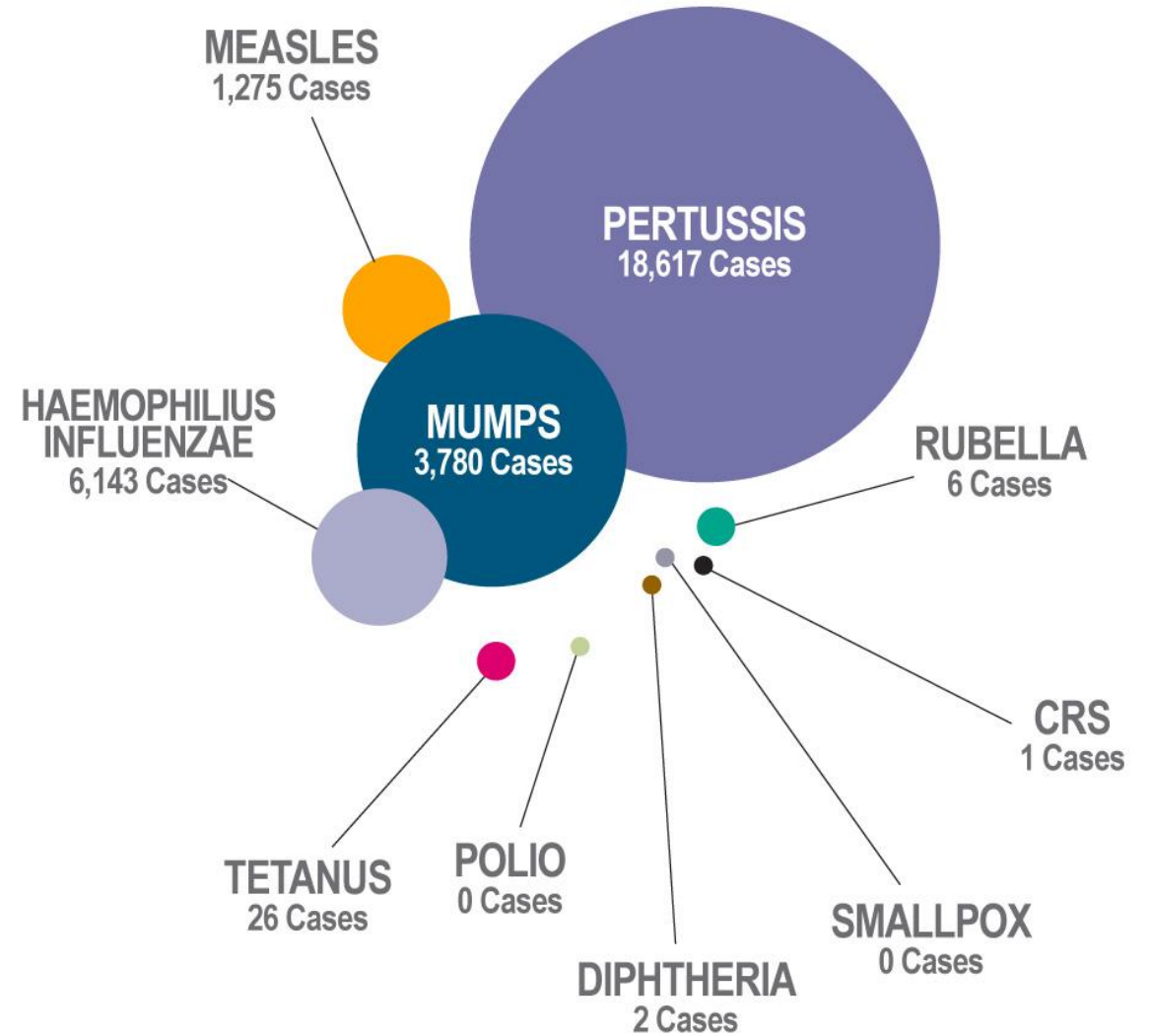
# VACCINES WORK

These bubbles are sized according to the annual number of disease cases in the US during the 1900s versus 2019. We've come so far. It's a reminder that while disease rates are low, most diseases haven't disappeared. This is why we continue to vaccinate.

<b>SMALLPOX</b>	<b>MEASLES</b>	<b>TETANUS</b>
THEN 29,005	THEN 530,217	THEN 580
NOW 0	NOW 1,275	NOW 26
<b>DIPHTHERIA</b>	<b>MUMPS</b>	<b>POLIO</b>
THEN 21,053	THEN 162,344	THEN 16,316
NOW 2	NOW 3,780	NOW 0
<b>PERTUSSIS</b>	<b>RUBELLA</b>	<b>CRS<sup>a</sup></b>
THEN 200,752	THEN 47,745	THEN 152
NOW 18,617	NOW 6	NOW 1
<b>HAEMOPHILUS INFLUENZAE</b>		
THEN 20,000 (est.)		
NOW 6,143		

<sup>a</sup> Congenital Rubella Syndrome

## NOW US disease cases in 2019







## HPV Vaccine

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Infections with HPV types that cause most HPV cancers & genital warts have dropped 88% in teen girls and 81% among young adult women

---

A recent observational study found NO invasive cervical cancer cases documented in women vaccinated against HPV at age 12-13 yoa

# Educate Patients about the Risks and Benefits of Vaccines

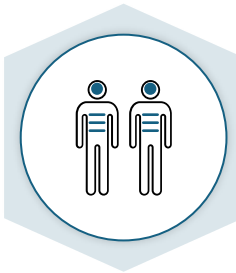


Because vaccines are so effective, many parents have never seen the diseases that vaccines protect against.



As a result, parents have trouble weighing real risk of the disease against the risk of the vaccine.





The FDA sets rules for 3 phases of clinical trials which test for the safety and efficacy of a new vaccine prior to licensure. The traditional phases include:

**Phase 1**  
Includes 20–100  
healthy volunteers



**Phase 2**  
Includes several  
hundred volunteers



**Phase 3**  
Includes hundreds or  
thousands of volunteers



FDA only licenses a vaccine if it is safe and effective and its benefits outweigh its risks



If licensed, CDC carefully reviews all data about the vaccine from clinical trials and other studies to develop recommendations for the vaccine's routine use

**Considerations for vaccine recommendation:**



How safe and effective is the vaccine at specific ages?



How serious is the disease it prevents?



How many people would get the disease if there was no vaccine?



After licensure and recommendation, FDA and CDC continue to monitor vaccine safety



Vaccine Adverse Event Reporting System (VAERS)



Vaccine Safety Datalink (VSD)



Clinical Immunization Safety Assessment Project (CISA)

# Risks and Benefits: Side Effects

Serious side effects post vaccination are extremely rare.

Consider the risk of these vaccine-preventable diseases:


- **Meningococcal:** About 10-15% of people will die
- **Hib:** About 5% of people will die and about 15 – 20% of survivors will be deaf
- **Tetanus:** About 6% with mild tetanus and up to 60% with severe tetanus will die





# Risks and Benefits: Adverse Events

Many people think that all adverse events following the vaccine are caused by the vaccine but that's not the case. Just because one thing follows another does not mean that the first thing caused the other.



# Risks and Benefits: Allergic Reactions

## What is the real risk of a vaccine allergic reaction?

Your child is more likely to be an olympian than have an allergic reaction to a vaccine.



Odds your child will be struck by lightning in his lifetime...

1 in 3,000



Source: National Geographic

Odds your child will be an Olympian...



1 in 380,228

Source: TeamsUSA.org



Odds your child will be elected to congress

1 in 557,094

Source: US House & Senate Websites

Odds your child will have a vaccine related allergic reaction  
1 in 1,000,000

Source: CDC



# Communicate Clearly and Effectively about Vaccines

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Vaccine decision-making may be an emotional experience that is informed by thoughts and feelings.

---

There is a lack of evidence supporting the presumption that hesitancy and/or opposition are primarily driven by insufficient understanding of the facts.

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Providing more information may unintentionally cause those presented with the facts to hold more tightly to their opposing beliefs

---

**WORDS MATTER** when trying to achieve a common goal of healthy communities through optimal vaccination uptake.



## What

Safety

Ingredients

Facts about diseases prevented

Myths/misconceptions



## How

Best way to convey information so someone is receptive





# Communication Strategies to Avoid

## The "Righting Reflex"-

- Strong urge to tell patients what to do and how to do it

Nurses have an innate instinct to offer a solution to "right" the problem

Often backfires! When people are told what to do and how to do it, they often do the exact opposite to prove they have autonomy

# Deliver a Strong Recommendation

**Presumptive formats presuppose that patients/parents will vaccinate**

“We have some shots to do today.  
“Sarah is due for a flu vaccine today so we can get that ready.”



**Participatory formats provide patients/parents with more decision-making latitude**

“Are we doing shots today?”  
“How do you feel about Sarah getting a flu vaccine?”

# Presumptive format

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MAKES VACCINATION THE CLEAR  
STANDARD OF CARE



NORMALIZES THE VACCINE DECISION



CAN ACTUALLY MAKE PATIENTS/PARENTS  
MORE COMFORTABLE AND  
CONFIDENT IN THE DECISION TO  
VACCINATE



STILL PROVIDES LATITUDE FOR  
QUESTIONS AND CONCERNS

# Presumptive Pearls

1

Tone and body language matter! Do not make the presumptive format sound like a question. Make eye contact. Be attentive, avoid distractions

2

Use presumption even if patient/family has voiced previous hesitance

3

Do not revert quickly to participatory format. Allow time to respond, don't fill the silence




# Suggested Flow of Vaccine Communication

Make a strong recommendation




Patient responds in 1 of 3 ways:

 **Yes**  
No resistance




**Vaccinate**

 **Not sure**  
Ambivalence



**Use motivational interviewing**

- 1 Explore thoughts
- 2 Reflect back change talk
- 3 Engage in collaborative (2-way) conversation
- 4 Support autonomy and decision-making
- 5 Summarize

 **No**  
Resistance



## Motivational Interviewing (MI)

### Evidence-Based Communication Approach

The spirit of Motivational Interviewing (MI) entails a collaborative partnership between patients and nurses.

### "Dancing, not wrestling"

MI is working with the client,  
rather than at the client



4

## **4-As Method**

Evidence-Based  
Communication Approach

1. Ask
2. Acknowledge
3. Affirm
4. Answer

A healthcare professional in a white coat is shown in profile, facing an elderly patient with short grey hair who is lying in a hospital bed. The patient is wearing a blue patterned hospital gown and has a white identification band on their left wrist. The professional is holding a clipboard and a pen, appearing to be in conversation with the patient. The background shows a typical hospital room with wood-paneled walls, a bedside table with a glass of water, and various medical equipment.

1. **Ask** - Encourage the person to share their concerns.

**"How are you feeling about your health today?"**

**"What concerns you most about your heart condition?"**

**"What questions can I help you with?"**



2. **Acknowledge** - Recognize that the person already has knowledge.

**"Thank you for taking the time to come in today."**

**"It's clear you've looked into what is happening with your blood sugar levels."**

**"You have really done well at managing your diabetes."**





3. **Affirm** – Affirm that it is okay to have questions.

**"You have some valid concerns."**

**"That's a great question. I have had similar concerns."**

**"There is so much information, it can be overwhelming."**



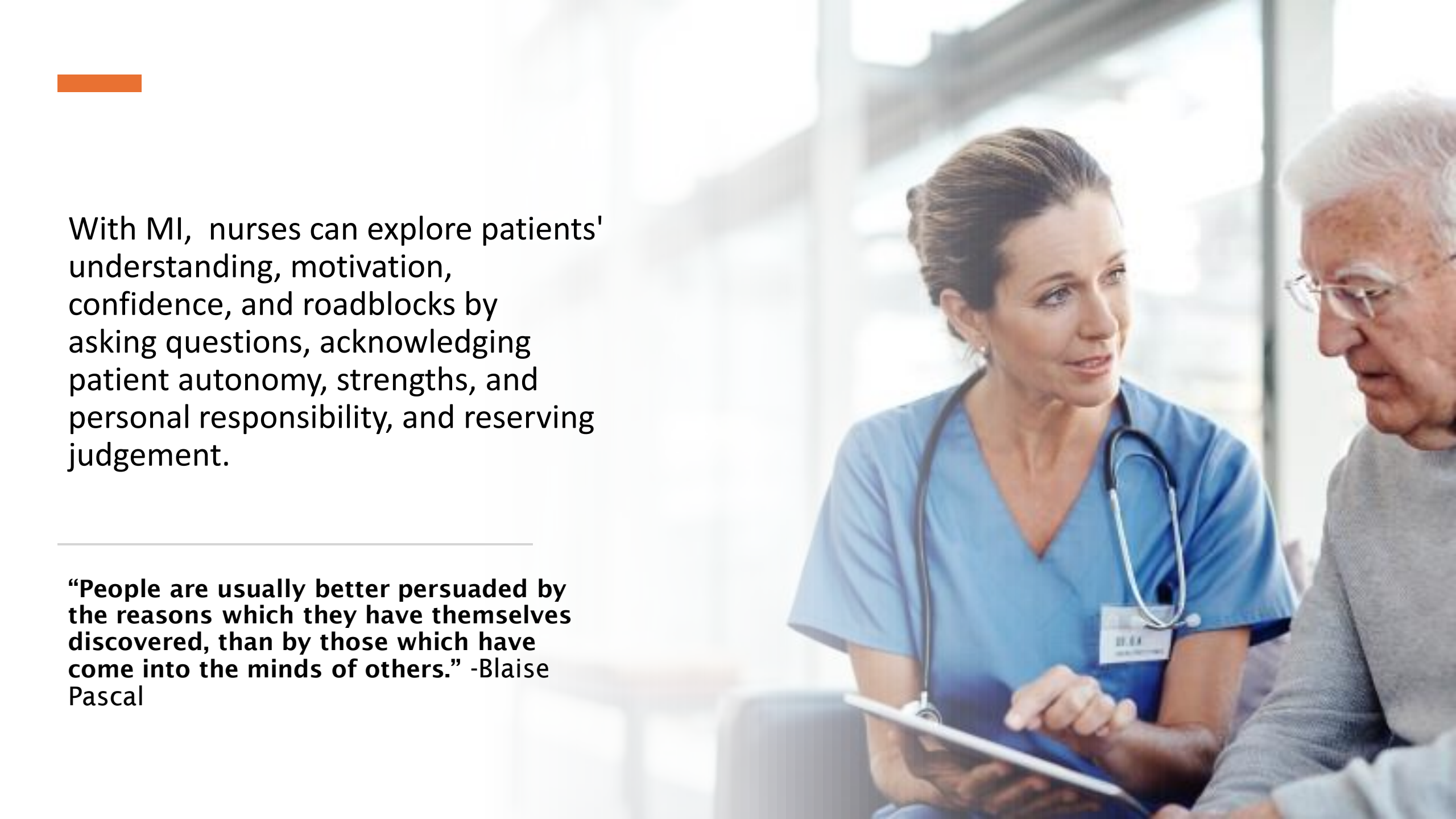


4. **Answer**- Need to receive permission to share information or facts.

**"May I share with you some information that I have learned?"**

**"Can I share with you a few credible resources that I have found helpful?"**

**Roll with Resistance!**



With MI, nurses can explore patients' understanding, motivation, confidence, and roadblocks by asking questions, acknowledging patient autonomy, strengths, and personal responsibility, and reserving judgement.

---

**“People are usually better persuaded by the reasons which they have themselves discovered, than by those which have come into the minds of others.” -Blaise Pascal**



# The 4-As in Action: Case #1

The caregivers of a 9-week old infant arrive for a well-child visit at a local pediatric clinic. The infant received the hepatitis B vaccine after birth and is due for 2-month immunizations (DTaP, IPV, Hib, Pneumococcal, Rotavirus, Hepatitis B).





## The 4-As in Action: Case #1

Start with a **strong recommendation** using the **presumptive approach**:

"Your baby is due for 2-month immunizations today so we can get those ready."



## The 4-As in Action: Case #1

After hearing the number of vaccines that are scheduled for the 2-month visit, the caregiver responds "That is too many vaccines for such a little baby – she's only a few weeks old! Her immune system can't handle all of those at once."

### Ask:

"Tell me more about the concern you have about the vaccines."



## The 4-As in Action: Case #1

Caregiver responds that she's read on social media and heard from friends that too many vaccines at once can overwhelm the infant's immune system.

### **Acknowledge:**

"Given the information you received, it makes perfect sense that you would be concerned. It's good that you are asking questions and trying to do what is best for your child's health."





## The 4-As in Action: Case #1

Caregiver expresses fear that so many vaccines could harm the child.

**Affirm:**

"It's okay to have questions about vaccines. Many parents ask questions about these 2-month vaccines because there are quite a few of them."



## The 4-As in Action: Case #1

Answer: **NOT YET!**

**GET PERMISSION TO SHARE FIRST!**

"I have some information about these vaccines that might be useful. Can I share that information with you?"



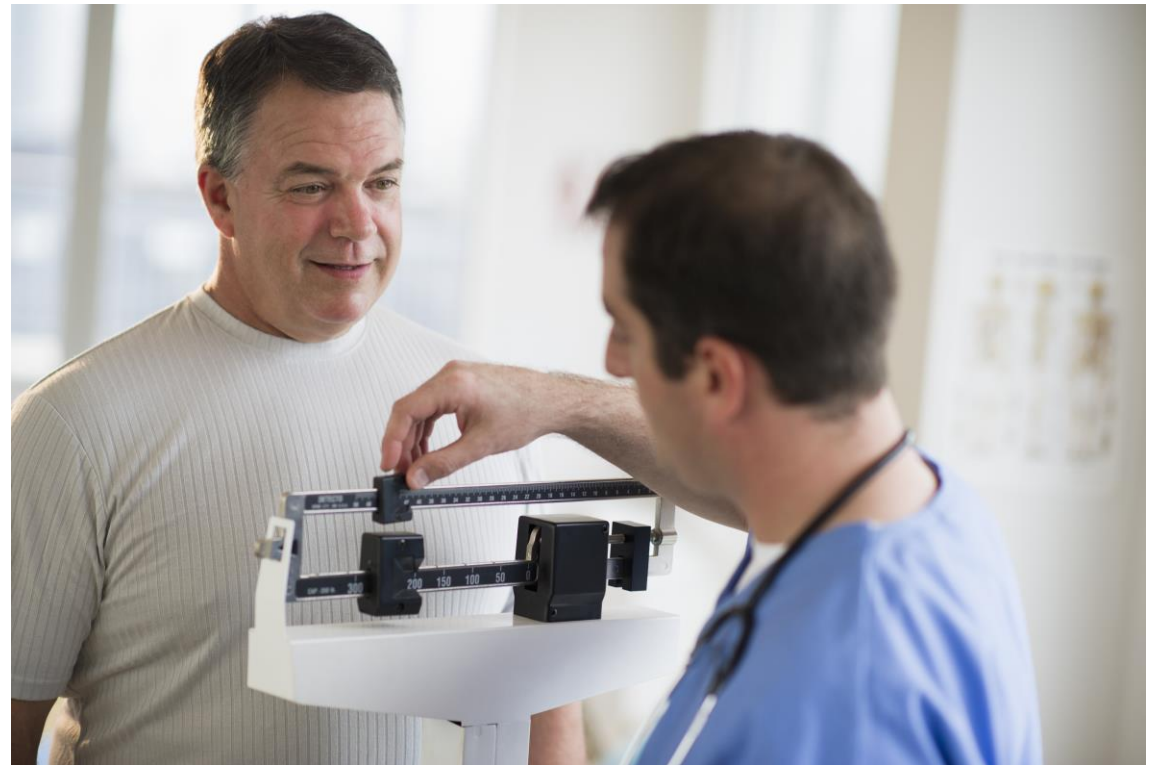
## The 4-As in Action: Case #1

### Answer:

"Baby's immune systems are exposed to antigens every time they eat, play on the floor, or put something in their mouth. The exposure they get from their environment is much more than the exposure they get from vaccines. Also, science and technology have advanced so children actually get fewer total antigens in all the vaccines they get today when compared to vaccines that were given years ago. What are your thoughts about that?"

# The 4-As in Action: Case #2

A 53-year old male with hypertension who was recently diagnosed with hyperlipidemia presents to the clinic for a wellness visit. His last physical was 2 years ago. The client has not yet received a flu vaccine for the current season.





## The 4-As in Action: Case #2

Start with a strong recommendation using the presumptive approach:

"I see you haven't gotten a flu vaccine yet this year. Let's get you vaccinated against influenza today."

## The 4-As in Action: Case #2

Client responds "I'm not getting the flu shot. I got it for the first time 3 years ago, and it made me sick. I'm not doing that again."

### Ask:

"Tell me more about what happened when you got the flu vaccine."

## The 4-As in Action: Case #2

Client explains that he developed a low-grade fever, a headache, and body aches after receiving the vaccine. The symptoms lasted 1-2 days and then resolved, and the client believes that he got influenza from the flu shot.

### Acknowledge:

"I've heard that same concern about the flu vaccine from others so you're not the only one with this type of experience."

## The 4-As in Action: Case #2

Client states "It just seems stupid to get a shot that's supposed to keep you healthy and makes you sick instead."

### Affirm:

"It's great that you are thinking carefully about your health decisions. I think it shows that you care about your health and want to make good choices for yourself."

## The 4-As in Action: Case #2

### Answer:

**REMEMBER TO GET PERMISSION FIRST!**

"It sounds like you're worried that the flu vaccine might not work. Is that correct?"  
I've learned quite a bit about the flu vaccine because we give it so often here at the clinic. Would it be okay if I share some information about the vaccine with you?"



## The 4-As in Action: Case #2

### Answer:

"The flu vaccine is made of a very small piece of the dead virus that cannot make you sick. Soreness, fever, muscle aches, and a headache are all normal side effects that can occur after the shot as your immune system responds to the vaccine and gets prepared to fight off the flu virus if you are exposed to it. What stands out to you about the information I've shared?"

# The 4-As in Action: Case #3

A 63-year old female is admitted to the med-surg unit with severe hyperglycemia for the 3rd time in 11 months. She has type 2 diabetes mellitus and started using subcutaneous insulin 2 years ago. Based on her lab results and inconsistent reports in the history, her medication compliance is questionable.





The 4-As in  
Action: Case #3




**Ask:**

"I'd like to talk about your diabetes medications. What's it been like having to do injections every day?"



## The 4-As in Action: Case #3



Client reports that the injections are painful, and she dislikes them. Client also reports that she will sometimes skip an injection if her blood sugar isn't too high that day.

### Acknowledge:

"That's understandable. I haven't taken care of a patient yet who enjoys getting shots every day. Tell me more about how you decide whether or not to give yourself insulin."



## The 4-As in Action: Case #3

Client reports that she typically checks her blood glucose in the morning. If the number is under 200 g/dL and she's feeling good, she will skip insulin that day. Client reports that she consistently takes oral metformin as prescribed.


### Affirm:

"I'm glad to hear that you've been so good about checking your blood sugars daily and taking your oral medication. It's clear that you care about your health and are trying to find the best way to manage your diabetes."





The 4-As in  
Action: Case #3




**REMEMBER TO GET PERMISSION  
FIRST BEFORE YOU PROVIDE AN  
ANSWER!**

"Would it be alright if I shared some information with you about insulin and diabetes?"



## The 4-As in Action: Case #3

### Answer:



"Insulin helps keep your blood sugar levels within a normal range, which can prevent long-term complications, like nerve damage, heart disease, and vision problems. Some people feel okay even when their blood sugar is high, but it's still causing damage that you might not feel right away. Insulin is also typically more effective than metformin for lowering glucose levels with type 2 diabetes."

"What do you think? How does that information fit with what you were thinking about your diabetes management?"

# Knowledge in Action!

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Describe a situation in your place of work where you could use one of the communication strategies you learned about during today's session.



# **Q & A Session**



# Resources:

[Centers for Disease Control and Prevention \(CDC\)](#)

[CCNC Motivational Interviewing Resource Guide](#)

[The Debunking Handbook 2020](#)

[Immunize.org](#)

[National Institutes of Health](#)

[NDSU Center for Immunization Research and Education \(CIRE\)](#)

[Office of the U.S. Surgeon General: A Community Toolkit for Addressing Health Misinformation](#)

[U.S. Department of Health and Human Services: Confronting Health Misinformation](#)

[Vaccine Hesitancy Toolkits](#)

[Voices for Vaccines](#)



**Free CME opportunities through Center for Immunization Research and Education (CIRE) at NDSU:**

[Motivational Interviewing for Vaccine Hesitancy: A Training Module for Health Care Providers](#)

Join the [CIRE Mailing List](#)

**Other opportunities:**

[Voices for Vaccines Becoming Trusted Messengers Training](#)

# THANK YOU!

Please connect with us if you have questions.

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[sharon.nelson2@ndsu.edu](mailto:sharon.nelson2@ndsu.edu)

Remember to complete the [Evaluation Form](#) to earn 1 contact hour.



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