Immunizations
Crucial Conversations

1) Effects of the antivaccine movement
2) Conspiracy theories abound
3) Social media: asset or liability?
4) Understand your patients’ perspectives
5) Tailor your message to meet your patients’ concerns
MOST IMPORTANT PUBLIC HEALTH INTERVENTIONS IN HISTORY

- Safe drinking water
- Immunizations

*Those who cannot remember the past...*  
*..... are condemned to repeat it.*
Mistrust of a Coronavirus Vaccine Could Endanger Widespread Immunity
Figure 15

Personal Health Care Providers Are Most Trusted Source Of Information On COVID-19 Vaccine

Percent who say they have a great deal or a fair amount of trust in each of the following to provide reliable information about a COVID-19 vaccine:

- Their own doctor or health care provider: 85%
- The CDC: 73%
- Their local public health department: 70%
- The FDA: 70%
- Dr. Anthony Fauci: 68%
- Their state government officials: 58%
- President-elect Joe Biden: 57%
- Pharmaceutical companies: 53%
- President Trump: 34%

## Impact of Vaccines During the Past 70 Years

<table>
<thead>
<tr>
<th>Disease</th>
<th>Reported Cases (year)</th>
<th>Reported Cases (2018)</th>
</tr>
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<tbody>
<tr>
<td>Diphtheria</td>
<td>5796 (1950)</td>
<td>1</td>
</tr>
<tr>
<td>Tetanus</td>
<td>486(1950)</td>
<td>23</td>
</tr>
<tr>
<td>Pertussis*</td>
<td>120,718(1950)</td>
<td>15,609</td>
</tr>
<tr>
<td>Measles</td>
<td>319,124 (1950)</td>
<td>375</td>
</tr>
<tr>
<td>Mumps</td>
<td>152,209 (1968)</td>
<td>2515</td>
</tr>
<tr>
<td>Rubella</td>
<td>46,975 (1966)</td>
<td>4</td>
</tr>
<tr>
<td>Hepatitis A*</td>
<td>32,859 (1966)</td>
<td>12,474</td>
</tr>
<tr>
<td>Hepatitis B*</td>
<td>26,611 (1985)</td>
<td>3322</td>
</tr>
<tr>
<td>Polio</td>
<td>33,300(1950)</td>
<td>0</td>
</tr>
</tbody>
</table>

Center for Disease Control. CDC.gov

Annual reported cases of notifiable diseases and rates per 100,000, excluding U.S. Territories - United States, 2018
Measles eliminated in US in 2000
Number of measles cases reported by year

Measles eliminated in US in 2000
2019 exceeds record established in 1995
Polio could have been eliminated from our planet
But was stopped by vaccine hesitancy

Today, only 3 countries in the world have never stopped transmission of polio Pakistan, Afghanistan and Nigeria).
Local religious leaders told mothers the vaccine was laced with estrogen and would cause infertility in their male children.
Figure 2: Willingness To Get COVID-19 Vaccine Has Increased Across Racial/Ethnic Groups

If a COVID-19 vaccine was determined to be safe by scientists and available for free to everyone who wanted it, would you...

- Definitely/Probably get it
- Definitely/Probably NOT get it

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Sep-20</th>
<th>Dec-20</th>
<th>Black</th>
<th>Sep-20</th>
<th>Dec-20</th>
<th>Hispanic</th>
<th>Sep-20</th>
<th>Dec-20</th>
<th>White</th>
<th>Sep-20</th>
<th>Dec-20</th>
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</thead>
<tbody>
<tr>
<td>Get it</td>
<td></td>
<td>63%</td>
<td>71%</td>
<td>50%</td>
<td>62%</td>
<td></td>
<td>60%</td>
<td>71%</td>
<td></td>
<td>65%</td>
<td>73%</td>
<td></td>
</tr>
<tr>
<td>NOT get it</td>
<td></td>
<td>34%</td>
<td>27%</td>
<td>49%</td>
<td>35%</td>
<td></td>
<td>37%</td>
<td>26%</td>
<td></td>
<td>33%</td>
<td>26%</td>
<td></td>
</tr>
</tbody>
</table>

Likelihood of Getting Covid-19 Vaccine
National Trends April-Dec 2020

Figure. Percentage of US Adults Who Say They Are Likely to Get a COVID-19 Vaccine

Survey respondents, %

Survey period

N=5660
Figure 4

Which Groups Are Most Likely To Be COVID-19 Vaccine Hesitant?

Percent within each group who say, if a COVID-19 vaccine was determined to be safe by scientists and available for free to everyone who wanted it, they would probably not get it or definitely not get it:

- Republicans: 42%
- Ages 30-49: 36%
- Rural residents: 35%
- Black adults: 35%
- Essential workers: 33%
- Independents: 31%
- Health care workers: 29%
- Men: 29%
- Ages 18-29: 28%
- Suburban residents: 27%
- Women: 27%
- Hispanic adults: 26%
- White adults: 26%
- Ages 50-64: 26%
- Urban residents: 25%
- Household with serious health condition: 22%
- Ages 65 and over: 15%
- Democrats: 12%

Figure 4

Which Groups Are Most Likely To Be COVID-19 Vaccine Hesitant?

Percent within each group who say, if a COVID-19 vaccine was determined to be safe by scientists and available for free to everyone who wanted it, they would probably not get it or definitely not get it:

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</table>

REACTION TO VACCINATION RECOMMENDATIONS

PROVACCINE
Believe in the merits
70-90% of the US and UK population

HESITANT
Indifferent or Undecided
Reasonable concerns

ANTIVACCINATIONIST
unlikely to change their views
Antivaccinationists
Smallpox to Covid
Misinformation & Conspiracy Theories

Andrew Wakefield
5G
Plandemic
The Vaccination Monster

London, 1807

This monster has been named vaccination; and his progressive havoc among the human race, has been dreadful and most alarming.
In 1910, Sir William Osler publicly expressed his frustration with the irrationality of the antivaccinationists. He offered to take 10 vaccinated and 10 unvaccinated people with him into the next severe smallpox epidemic.

He offered to arrange for the funerals of those among them who would die.

Conscientious Objection 1896, in reference to those with religious scruples about mandatory vaccination.
Retraction—Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children

The Editors of The Lancet
Following the judgment of the UK General Medical Council’s Fitness to Practise Panel on Jan 28, 2010, it has become clear that several elements of the 1998 paper by Wakefield et al. are incorrect, contrary to the findings of an earlier investigation. In particular, the claims in the original paper that children were “consecutively referred” and that investigations were “approved” by the local ethics committee have been proven to be false. Therefore we fully retract this paper from the published...
Lancet Retracts Controversial Autism Paper

results are highly significant: millions spent needlessly, hundreds of thousands -- maybe even millions -- unimmunized, and a fog of suspicion cast upon vaccines."

On Jan. 28, the United Kingdom's General Medical Council (GMC) found Wakefield guilty of acting unethically during the time he conducted the famous case report of 12 children that questioned if a childhood vaccine caused a new form of autism.

The GMC concluded that Wakefield participated in "dishonesty and misleading conduct" while he conducted the research. Specifically, it found Wakefield responsible for an ethics breach because he wrote that the children involved in the case report were referred to his clinic for stomach problems, when he knew nearly half of the children were actually part of a lawsuit looking into the effects of an MMR vaccine. Some children didn't have stomach issues at all.
THE COST OF A SCARE

In the wake of the now-debunked claims in 1998 of a link between the measles, mumps and rubella vaccine and autism, vaccination dropped and measles cases rose in England and Wales.
There is no link between vaccines and autism.

MMR Vaccine Does Not Cause Autism
Examine the evidence!

There is no scientific evidence that MMR vaccine causes autism. The question about a possible link between MMR vaccine and autism has been extensively reviewed by independent groups of experts in the United States, including the National Academy of Sciences’ Institute of Medicine (now renamed the National Academy of Medicine). These reviews have concluded that the available epidemiologic evidence does not support a causal link between MMR vaccine and autism.

More than 25 articles refute a connection between MMR vaccine and the development of autism


This nationwide cohort study included all 657,461 children born 1/1999–12/2010 in Denmark. With this many study participants, the researchers were able to look at vaccinated vs not vaccinated children, including 6,517 children with a diagnosis of autism.

CONCLUSION: The findings strongly support that MMR vaccin-
Conspiracy Theories

- Plandemic
- 5G
- Reject all Science Movement
Three Months In, Many Americans See Exaggeration, Conspiracy Theories and Partisanship in COVID-19 News

72% of US have heard about the conspiracy that COVID-19 was planned
And 1/3 of them say it is probably or definitely true
Plandemic

A Doctor’s Endorsement

On the afternoon of May 5, Dr. Christiane Northrup, a women’s health physician, shared “Plandemic” with her nearly half a million Facebook followers. Dr. Northrup, who had developed a following from her appearances as a medical expert on “Oprah,” had previously expressed misgivings about vaccines.

Her status as a celebrity doctor made her endorsement of “Plandemic” powerful. After Dr. Northrup shared the video, more than 1,000 people also shared it, many of them to groups that oppose mandatory vaccinations, according to an analysis by The Times. She did not respond to a request for comment.
One version of this theory goes something like this: The COVID-19 pandemic is part of a strategy conceived by global elites — such as Bill Gates — to roll out vaccinations with tracking chips that would later be activated by 5G, the technology used by cellular networks.

NPR July 10, 2020
REJECT ALL SCIENCE MOVEMENT

NYT. 12/2/2020

“The anti-vaxxers were very involved in the reopen movement, and in the anti-mask movement, and in the reject-all-scientific-evidence” movement.

Renée DiResta, Stanford Internet Observatory Scholar of how these groups use the internet.

By Farhad Manjoo
Opinion Columnist
Social media
INTERNATIONAL MEMORIAL FOR VACCINE VICTIMS
Honoring those whose lives have been lost or forever changed by vaccination.
Historically, democracies have been associated with improved health outcomes due to institutions accountable to the public, increased levels of public education and generally higher levels of wealth.

Paradoxically though, contemporary anti-vaccination sentiment appears to be most concentrated in wealthy and highly educated democracies.

Foreign disinformation campaigns associated with declines in mean vaccination rates.

Combating disinformation and misinformation regarding vaccines online is critical to reversing the growth in vaccine hesitancy around the world.

We argue for a ... strategy explicitly targeting foreign disinformation campaigns and the use of social media by anti-vaccination groups.
Center for Countering Digital Hate (CCDH)

Social media accts of anti vaxxers has increased by over 7 million since 2019
31 million people follow anti-vaccine groups on Facebook
17 million on Youtube
The anti-vaccine movement could realize $1 billion in annual revenues for social media firms

CCDH divides the online anti-vaccine movement into 4 groups:
1 Campaigners work full-time to foment distrust - they reach 12% of anti-vaxxers
2 Entrepreneurs reach 50% of anti-vaxxers to sell products
3 Conspiracy theorists
4 Communities (mostly facebook)

WHO has warned of an infodemic of false information about COVID-19 spreading online.
“For much too long, the pro-vaccine groups have been reactive and reticent; they have assumed that science can speak for itself. That has not worked. We need to throw light on these malign actors, refute their arguments very aggressively and proactively.”

Vish Viswanath, Professor
Harvard School of Public Health,

“The best way to stop someone from becoming an anti-vaxxer is to stop them from becoming infected in the first place”

Imran Ahmed,
Founder CEO CCDH,
The online competition between pro- and anti-vaccination views

Neil F. Johnson, Nicolas Velásquez, Nicholas Johnson Restrepo, Rhys Leahy, Nicholas

How did this distrust evolve?

System-level analysis of the multi-sided ecology of nearly 100 million individuals expressing views regarding vaccination.

Anti-vaccination clusters manage to become highly entangled with undecided clusters in the main online network, whereas pro-vaccination clusters are more peripheral.
They are heavily entangled with a very large presence of undecided clusters (more than 50 million undecided individuals).
Social media and vaccine hesitancy

DISCLOSURES
Our relation with the public related and content

Key questions

What is already known?
► Vaccine hesitant groups on social media have an alarming footprint, with studies demonstrating that large proportions of the content about vaccines on popular social media sites are anti-vaccination messages.
► Organized campaigns have been traced to Russian pseudo-state actors promoting anti-vaccination content on social media abroad.

What are the new findings?
► At a national level, the use of social media to organize offline action is highly predictive of the belief that vaccinations are unsafe, with such beliefs mounting as more organization occurs on social media.
► Foreign disinformation campaigns online are associated with a drop in both mean vaccination coverage over time and negative discussion of vaccines on social media.
► A one-point shift upwards in the five-point disinformation scale is associated with a two-percentage point drop in mean vaccination coverage year over year and a 15% increase in negative tweets about vaccines.


Figure 1  Model estimated effect of foreign disinformation on mean vaccination rate.
Children’s defense fund:

These platforms allow a small group of people who hold extreme beliefs to appear more mainstream or even in the majority.

The highly emotional, anecdotal content they share is very effective on social networks, often more so than the simple facts about vaccinations.

There are now hundreds of anti-vaccine websites, each amplified by social media, causing some to call the spread of extreme views a “cultural epidemic.”
Weaponized Health Communication: Twitter Bots and Russian Trolls Amplify the Vaccine Debate

David A. Booniatowski, PhD, Amelia M. Jamison, MAA, MPH, SiHua Qi, SM, Lahwah AlKoleih, SM, Tao Chen, PhD, Adrian Benton, MS, Sandra C. Quinn, PhD, and Mark Dredze, PhD

<p>| EXAMPLES OF TWEETS WITH #VACCINATEUS AND CORRESPONDING THEMES: JULY 14, 2014–SEPTEMBER 26, 2017 |</p>
<table>
<thead>
<tr>
<th>Antivaccine theme</th>
<th>Example tweet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freedom of choice/antimandatory vaccines</td>
<td>VaccinateUS mandatory #vaccines infringe on constitutionally protected religious freedoms</td>
</tr>
<tr>
<td>Can’t trust government on vaccines</td>
<td>Did you know there was a secret government database of vaccine-damaged children? #VaccinateUS</td>
</tr>
<tr>
<td>Pharmaceutical companies want vaccine profits</td>
<td>Pharmacy companies want to develop #vaccines to cash, not to prevent deaths #VaccinateUS</td>
</tr>
<tr>
<td>Vaccines cause bad side effects</td>
<td>#VaccinateUS #vaccines can cause serious and sometimes fatal side effects</td>
</tr>
<tr>
<td>Natural immunity is better</td>
<td>#VaccinateUS natural infection almost always causes better immunity than #vaccines</td>
</tr>
<tr>
<td>General vaccine conspiracy theories</td>
<td>Don’t get #vaccines. Illuminati are behind it. #VaccinateUS</td>
</tr>
<tr>
<td>Vaccines cause autism</td>
<td>Did you know #vaccines caused autism? #VaccinateUS</td>
</tr>
<tr>
<td>Vaccine ingredients are dangerous</td>
<td>#VaccinateUS #vaccines contain mercury! Deadly poison!</td>
</tr>
<tr>
<td>Diseases aren’t so dangerous</td>
<td>#VaccinateUS most diseases that #vaccines target are relatively harmless in many cases, thus making #vaccines unnecessary</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Provaccine theme</th>
<th>Example tweet</th>
</tr>
</thead>
</table>

Understand Patient Perspectives
Tuskegee Study of Untreated Syphilis

1932 Effort organized into study of 399 men with syphilis and 201 without. The men would be given periodic physical assessments and told they were being treated.
1945 Penicillin accepted as treatment of choice for syphilis.
1947 USPHS establishes “Rapid Treatment Centers” to treat syphilis; men in study are not treated
1968 Concern raised about ethics of study by Peter Buxtun and others.
1969 CDC reaffirms need for study and gains local medical societies’ support (AMA and NMA chapters officially support continuation of study).
1972 First news articles condemn studies. Study ends.
1974 A $10 million out-of-court settlement is reached. The U.S. government also promised to give lifetime medical benefits and burial services to all living participants; the Tuskegee Health Benefit Program (THBP) was established to provide these services. (37,500$/per participant per Baltimore sun 1997)
1997 On May 16th President Clinton apologizes on behalf of the Nation.
2004 The last U.S. Public Health Service Syphilis Study at Tuskegee participant dies.
The year 1963 marks the 30th year of the long-term evaluation of the effect of untreated syphilis in the male Negro conducted by the Venereal Disease Branch, Communicable Disease Center, United States Public Health Service. This paper summarizes the information obtained in this study—well known as the "Tuskegee Study"—from earlier publications, reviews the status of the original study group, and reports the clinical and laboratory findings on those remaining participants who were examined in the 1963 evaluation.
WHO listed vaccine hesitancy as one of the top 10 threats to world health.
Solutions

Tailor your message

Make it easier for patients to accept vaccination than to decline vaccination
Personal Health Care Providers Are Most Trusted Source Of Information On COVID-19 Vaccine

Percent who say they have **a great deal** or **a fair amount** of trust in each of the following to provide reliable information about a COVID-19 vaccine:

- Their own doctor or health care provider: 85%
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- The FDA: 70%
- Dr. Anthony Fauci: 68%
- Their state government officials: 58%
- President-elect Joe Biden: 57%
- Pharmaceutical companies: 53%
- President Trump: 34%

Competence and caring in relation to building trust

- Affection
- Distrust
- Trust
- Respect

- High Competence
- High Caring
- Low Competence
- Low Caring
I care about you.
I got my Covid shot.

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The state’s top three lottery-spending ZIP codes—each surpassing $20 million in sales during 2011 are majority-black ZIP codes on Chicago’s South and West sides.
Figure 2  (A-C) Reasons consumers acknowledge for not receiving immunizations, by vaccine type. Scale shown is the percent of consumers who were aware of the immunization and who agreed that this is a reason they have not received it or will not receive it.

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INDIFFERENCE/OVERSIGHT

Doctor and Patient!

INDIFFERENCE
INACTION
INERTIA
UNINTENTIONAL
UNCONCIOUS
UNEDUCATED
OMISSION VS COMMISION BIAS

COUNTERED BY:
GOVERNMENT PROGRAMS
FINANCIAL INCENTIVES/P4P/MEANINGFUL USE
MANDATED VACCINATION
BARRIERS FOR OPTING OUT
Exemptions Permitted to School and Child Care Immunization Requirements

June 2019

Immunization Action Coalition
www.immunize.org
Three Months In, Many Americans See Exaggeration, Conspiracy Theories and Partisanship in COVID-19 News

64% of U.S. adults say CDC mostly gets the facts about the outbreak right; 30% say the same about Trump and his administration.

“Three Months In, Many Americans See Exaggeration, Conspiracy Theories and Partisanship in COVID-19 News”

PEW RESEARCH CENTER
What The Research Tells Us

• Information does not cure wrong perceptions
• Public tends to equate any degree of exposure with harm ‘never events’
• Use ‘narrative vs numbers’. Anecdotes are understandable and compelling
• Public weighs risk and benefit differently than physicians or scientists
• The person communicating must be perceived as trustworthy and credible
TARGETTING THE FENCE-SITTERS

Anecdote beats epidemiology

Medical education teaches us the opposite

Dry science cannot compete with emotional appeal

It is easy to scare people and much harder to unscare them
Figure 4

Which Groups Are Most Likely To Be COVID-19 Vaccine Hesitant?

Percent within each group who say, if a COVID-19 vaccine was determined to be safe by scientists and available for free to everyone who wanted it, they would **probably not get it** or **definitely not get it**:

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Figure 9

Which comes closer to your view? Getting vaccinated against COVID-19 is...

- ...a personal choice
- ...part of everyone's responsibility to protect the health of others

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Democrats</th>
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<th>Republicans</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>49%</td>
<td>27%</td>
<td>51%</td>
<td>71%</td>
</tr>
<tr>
<td></td>
<td>49%</td>
<td>70%</td>
<td>47%</td>
<td>26%</td>
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</table>

When a vaccine for COVID-19 is approved and widely available to anyone who wants it, do you think you will...?

- Get it as soon as you can: 34%
- Wait and see how it's working: 39%
- Get it only if required for work/school: 9%
- Definitely not get it: 15%

Percent who say:
- Getting vaccinated is personal choice: 23%
- COVID-19 seriousness is exaggerated: 19%
- Worried someone in family will get sick: 80%
- Wear a face mask every time leave house: 84%
- Normally get flu vaccine: 80%


Figure 13: Attitudes And Behaviors By Vaccine Enthusiasm
Could the corona virus vaccine give me covid?

**ABSOLUTELY NOT!**

There’s no way to get Covid-19 from the vaccine.

The vaccine acts like a WANTED POSTER showing your immune system a picture of the ‘bad guy’.

Once your body knows what it looks like – it recognizes the virus if it attacks you. Your body will be ready to kill it.
“It gave me the flu”

“This vaccine does not prevent the common cold.”

“The average person gets 3 colds each year”

In general, the flu is worse than the common cold, and symptoms such as fever, body aches, extreme tiredness, and dry cough are more common and intense.

Colds are usually milder than the flu. People with colds are more likely to have runny or stuffy nose. Colds generally do not result in serious health problems, such as pneumonia, bacterial infections, or hospitalizations.
BAILING OUT THE BOAT

It’s much like bailing out a boat with a slow leak. When we started bailing, the boat was filled with water. But we have been bailing fast and hard and now it is almost dry. We could say, “Good. The boat is dry now, so we can throw away the bucket and relax.” But the leak hasn’t stopped. Before long we’d notice a little water seeping in, and soon it might be back up to the same level as when we started.

“THERE IS LITTLE THREAT OF THESE DISEASES ANYMORE”
(SUCCESS OF IMMUNIZATION)
"I WANT TO FIGHT INFECTION NATURALLY—WITH GOOD NUTRITION AND HYGIENE." (NATURAL IMMUNITY)

PUTTING OUT THE FIRE

Do you have a fire extinguisher in your home?
Sometimes a fire can start in a clean well maintained home, and sneak up on you. Once that happens it is very difficult to put out a serious fire and while fighting the fire, a person can get seriously hurt and suffer permanent damage.

Our immune system is like that fire extinguisher ready to put out the disease if it attacks—before it spreads.
“IF EVERYONE ELSE GETS IMMUNIZED THEN I WON’T NEED TO” (HERD IMMUNITY)

You are probably a very safe driver, and if you were on the road driving all by yourself and no other cars were around you might not feel you needed your seat belt.

But you wear it because someone else might crash into you.

If you weren’t wearing your seatbelt (or be immunized) that person with the disease could crash into you and your family and you would be unprotected.
The 100 Day Cough
Pertussis

This can appear to be a very mild cough during the early but contagious stages.

You might develop a prolonged cough-sometimes called the 100 day cough.

But you could give it to an infant and cause severe illness and even death.
Resolving Patients’ Vaccination Uncertainty:
GOING FROM “NO THANKS!” TO “OF COURSE!”

Immunizations have been one of the most effective interventions for improving public health in recent decades. Yet each year, on average, more than 50,000 adults die from vaccine-preventable diseases or their complications. Polio and measles could be eliminated from this planet just as smallpox was by the year 1979. However, the recent outbreaks of these two devastating and preventable diseases in areas where they had been previously eradicated, such as parts of Africa and the Middle East, highlight the need for increasing our vaccination rates in order to improve the health of our patients and communities. Understanding why our patients respond with “No thank you!” rather

Brown M, Sinsky C
Family Practice Management March/April 2014
Adult Vaccinations: Team-Based Immunization

Save time and prevent disease with an immunization program

3 Prepare your team to address common patient questions

Many patients have inaccurate knowledge about vaccinations as a result of misinformation from news outlets (e.g., television, print, social media) as well as from their own families and social circles. However, in most cases, your recommendation will still carry more weight than what patients hear elsewhere, especially in cases where you and your patients have a trusting, long-term relationship.
How Can Healthcare Providers Keep Up on Adult Vaccinations?

- **www.cdc.gov/vaccines**
  - Adult Immunization Schedule (updated annually)
  - ACIP recommendations for each vaccine
  - Vaccine information statements (VIS)
  - Brochures, posters, and how to store and administer vaccines

- **www.immunize.org**
  - The Immunization Action Coalition useful information for healthcare providers and answers to ALL questions! *Ask the Experts*
Most patients want to do the right thing

They trust and want information from their doctors and nurses.

When they don’t get it or can’t get it, they often turn to social media

Telling patients that using social media will misinform or confuse them may foster curiosity and distrust.

The power of the...narrative is great.

Together we can beat this virus!
Questions?

COVID-19 (2019 novel coronavirus) resource center for physicians

The AMA and Centers for Disease Control and Prevention (CDC) are closely monitoring the outbreak of COVID-19 (2019 novel coronavirus).

Stepsforward Immunization Toolkit
www.stepsforward.org
open access

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The following additional AMA resources are available to support your physicians and staff during COVID-19:

- Caring for Caregivers during COVID-19
- AMA COVID-19 Resource Page for Physicians
- JAMA COVID-19 Collection

www.ama-assn.org
Upcoming 2021 Programming

January 26  Building well-being into culture

January 27  The scholars of wellness: A faculty development program to create wellness champions

February 2  A review of telehealth trends: Informing the future of virtual care
For questions, please email: Action.Labs@ama-assn.org