

# Improving confidence in COVID-19 vaccines and the Nation's immunization system

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## Confidence matters –

### Example: Confidence in flu vaccine strongly associated with vaccination

**Table 5.** Beliefs regarding influenza vaccine.

	Overall	Age				Got Flu Vaccine in Last 12 Months		
		19–30	31–49	50–64	65+	Yes	No	
<i>N</i>	1005	212	330	264	199	418	571	
<b>How confident are you in the safety of the seasonal flu vaccine or shot? ('1'—not very confident to '5'—very confident)</b>								
'1' or '2'		27.8%	34.3% <sup>a</sup>	35.4% <sup>a</sup>	20.1% <sup>b</sup>	18.7% <sup>b</sup>	7.9% <sup>a</sup>	42.5% <sup>b</sup>
'3'		22.9%	30.0% <sup>a</sup>	25.0% <sup>a</sup>	23.1% <sup>a</sup>	11.6% <sup>b</sup>	15.3% <sup>a</sup>	28.2% <sup>b</sup>
'4' or '5'		49.3%	35.7% <sup>a</sup>	39.6% <sup>a</sup>	56.8% <sup>b</sup>	69.7% <sup>c</sup>	76.7% <sup>a</sup>	29.3% <sup>b</sup>
<b>How confident are you in the effectiveness of the seasonal flu vaccine or shot?</b>								
'1' or '2'		30.7%	33.0% <sup>a,b</sup>	40.9% <sup>b</sup>	25.1% <sup>a,c</sup>	19.0% <sup>c</sup>	9.9% <sup>a</sup>	46.3% <sup>b</sup>
'3'		28.7%	40.2% <sup>a</sup>	29.9% <sup>b</sup>	28.5% <sup>b</sup>	14.9% <sup>c</sup>	21.0% <sup>a</sup>	34.1% <sup>b</sup>
'4' or '5'		40.6%	26.8% <sup>a</sup>	29.3% <sup>a</sup>	46.4% <sup>b</sup>	66.2% <sup>c</sup>	69.1% <sup>a</sup>	19.6% <sup>b</sup>
<b>How confident are you that you would benefit from receiving a seasonal flu vaccine or shot?</b>								
'1' or '2'		36.0%	42.7% <sup>a</sup>	45.9% <sup>a</sup>	29.4% <sup>b</sup>	21.4% <sup>b</sup>	10.1% <sup>a</sup>	55.5% <sup>b</sup>
'3'		21.1%	29.9% <sup>a</sup>	21.1% <sup>b</sup>	22.5% <sup>a,b</sup>	9.7% <sup>c</sup>	14.4% <sup>a</sup>	25.0% <sup>b</sup>
'4' or '5'		43.0%	27.5% <sup>a</sup>	33.0% <sup>a</sup>	48.1% <sup>b</sup>	68.9% <sup>c</sup>	75.5% <sup>a</sup>	19.5% <sup>b</sup>

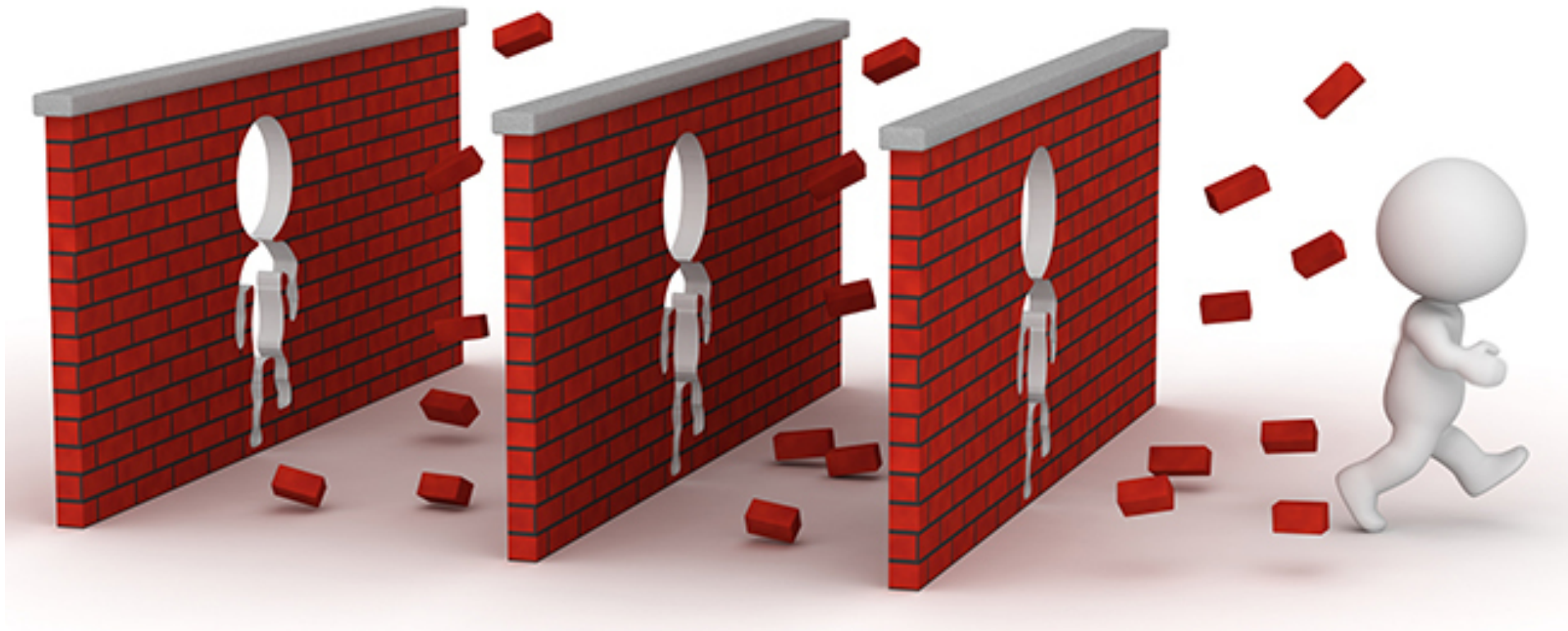
## Focus of the presentation

Building COVID-19 vaccine and vaccination trust confidence:  
Insights from health, risk, and immunization communication research and practice

## Three insights

1. Understand the COVID-19 vaccination communication landscape
2. Utilize health and risk communication principles and science
3. Look for, develop, utilize, and make visible COVID-19 vaccine and vaccination communication resources and advice/examples

# 1. Understand the COVID-19 Vaccination Communication Landscape



## Important definitions

- **Hesitancy** – as in “vaccine hesitancy” or “vaccination hesitancy”
  - One’s willingness or reluctance to get a recommended vaccine or vaccination
- **Confidence** – as in “vaccine confidence” or “vaccination confidence”
  - One’s faith or strength of belief that receiving a recommended vaccine or vaccination will result in significant benefit(s) and very little likelihood of bad or negative outcomes (e.g., immediate reactions, adverse events)
  - A strong belief that the benefits of receiving a recommended vaccine or vaccination far exceeds any possible risks
- **Acceptance** – as in “vaccine acceptance” or “vaccination acceptance”
  - Agreeing to receive a recommended vaccine
  - Getting vaccinated



**William A. Haseltine** Contributor  
Healthcare

CORONAVIRUS | 1,182 views

May 28, 2020, 12:52pm EDT

## Confronting Barriers To Covid-19 Vaccine Acceptance

“What we do know is that public acceptance of a Covid-19 vaccine will play an outsized role in our ability to get as many people vaccinated as possible—and to that end, it isn’t too early to begin planning our efforts to educate the public. As a [new analysis](#) published in JAMA makes clear, early planning and public education is a must. To proactively confront barriers to Covid-19 vaccine acceptance in the United States, its authors argue, we must ramp up public health education now.”



**Viewpoint** | COVID-19: Beyond Tomorrow

May 18, 2020

## Planning for a COVID-19 Vaccination Program

Sarah Schaffer DeRoo, MD, MA<sup>1,2</sup>; Natalie J. Pudalov, BA<sup>3</sup>; Linda Y. Fu, MD, MS<sup>1,3</sup>

“To substantially reduce morbidity and mortality from COVID-19, an efficacious and safe vaccine must be delivered swiftly and broadly to the public as soon as it is available. However, the mere availability of a vaccine is insufficient to guarantee broad immunological protection; the vaccine must also be acceptable to both the health community and general public. Vaccine hesitancy is a major barrier to vaccine uptake and the achievement of herd immunity, which is required to protect the most vulnerable populations.”





### COVID-19 Vaccine Answers Start to Arrive, but Americans Still Have Concerns ✓

Consumer Reports via Yahoo News · 2 days ago  
Less than a third of the 2,670 U.S. respondents said they are "very likely" to get a coronavirus ...



### 'It seems too early' - in Europe, safety concerns dampen excitement over COVID-19 vaccine ✓

Reuters via Yahoo News · 2 days ago  
Some Europeans on Tuesday injected a dose of caution into the excitement which greeted news that...

### COVID-19 vaccines are coming – how will we know they work and are safe?

The Conversation via Yahoo News · 1 day ago  
Pfizer and BioNTech have just released interim results of their COVID-19 vaccine trial. First, researchers need to know whether just ...



### Misinformation on COVID-19 vaccines could lead to 'major consequences' for herd immunity: study ✓

New York Daily News · 3 hours ago  
Misinformation and conspiracy theories about coronavirus vaccines could pose a serious threat for...



### Misinformation could prompt people to turn against COVID-19 vaccines - study ✓

Reuters via Yahoo News · 5 hours ago  
Conspiracy theories and misinformation fuel mistrust in vaccines and could push levels that...



We may soon have a COVID-19 vaccine. But will enough people take it?

Reuters via Yahoo News  
3 days ago



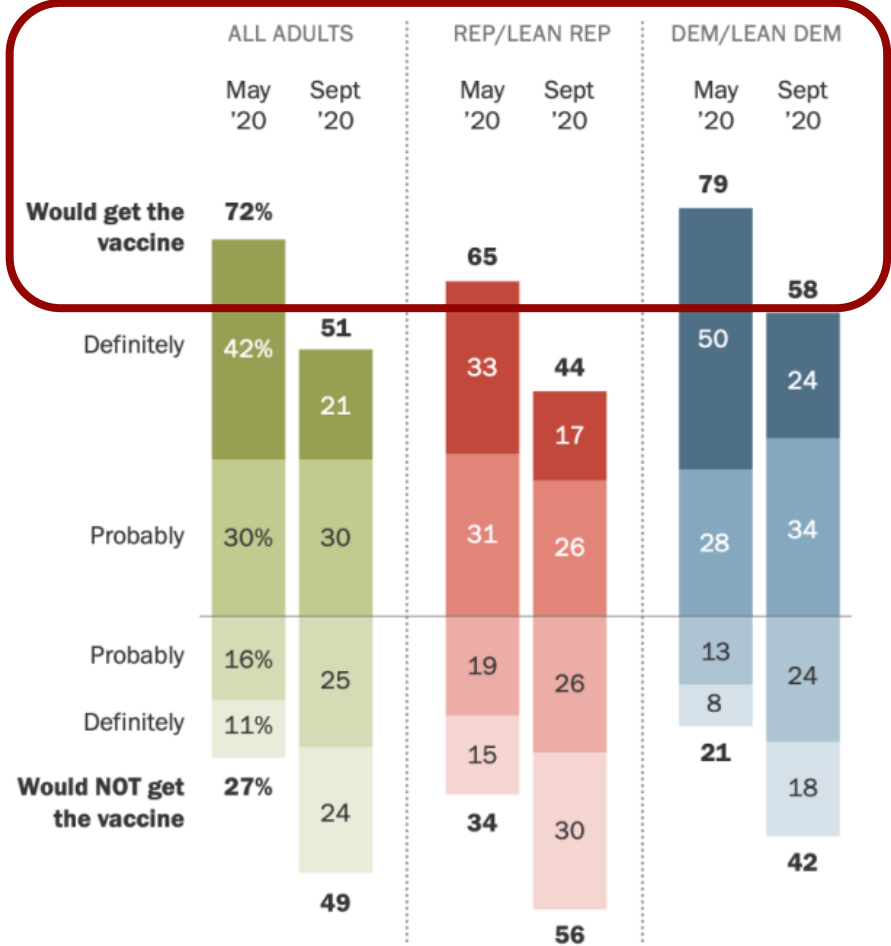
# U.S. Public Now Divided Over Whether To Get COVID-19 Vaccine

*Concerns about the safety and effectiveness of possible vaccine, pace of approval process*

by [Alec Tyson](#), [Courtney Johnson](#) and [Cary Funk](#), PEW RESEARCH CENTER, SEPT. 17, 2020

## Drop in share of Americans who say they would get a COVID-19 vaccine if it were available to them today

% of U.S. adults who say if a vaccine to prevent COVID-19 were available today, they ...



Note: Respondents who did not give an answer are not shown.  
 Source: Survey conducted Sept. 8-13, 2020.  
 "U.S. Public Now Divided Over Whether To Get COVID-19 Vaccine"

Original Investigation | Public Health

October 20, 2020

# Factors Associated With US Adults' Likelihood of Accepting COVID-19 Vaccination

Sarah Kreps, PhD<sup>1</sup>; Sandip Prasad, MD<sup>2</sup>; John S. Brownstein, PhD<sup>3,4</sup>; [et al](#)

» [Author Affiliations](#) | [Article Information](#)

*JAMA Netw Open.* 2020;3(10):e2025594. doi:10.1001/jamanetworkopen.2020.25594

**Question:** *What factors are associated with US adults' choice of and willingness to accept a hypothetical COVID-19 vaccine?*

**Study design:** A survey study of a nonprobability convenience sample of 2000 recruited participants including a choice-based conjoint analysis was conducted to estimate respondents' probability of choosing a vaccine and willingness to receive vaccination. Participants were asked to evaluate their willingness to receive each hypothetical vaccine individually.

**Vaccine attributes examined:** efficacy, protection duration, major adverse effects, minor adverse effects, US Food and Drug Administration (FDA) approval process, national origin of vaccine, and endorsement.

## Key findings include:

- Overall, 56% participants said they would be extremely, moderately, or slightly likely to choose the presented vaccine.
- **Willingness to receive a COVID-19 was associated with:**
  - Increases in vaccine efficacy (from 50% to 70% to 90%)
  - An increase in the duration of vaccine protection from 1 to 5 years
  - A decrease in the incidence of major adverse effects from 1 in 10,000 to 1 in 1,000,000
  - An endorsement by CDC or WHO
- **Reluctance to receive a COVID-19 vaccine was associated with:**
  - A vaccine approved by FDA emergency use authorization (compared to full FDA approval)
  - A vaccine being developed in a non-US country, especially China

## Bottomline – It is important we recognize that the COVID-19 communication landscape vaccination will be more challenging than many currently imagine.

The many uncertainties regarding initial COVID-19 vaccines – especially safety, effectiveness, duration of protection, and availability (including possibility by EUA)



Trust, credibility and health information-seeking strongly connected with moral values and political beliefs



Wide variations in COVID-19 disease effects/impact and individual perceptions and beliefs regarding the COVID-19 health threat



Two-dose vaccines and tiered provision of COVID-19 vaccines when initially available



Likelihood of multiple non-interchangeable vaccines being available, each having different requirements and safety and efficacy profiles



**A more complex and dynamic vaccine and vaccination communication and education environment that we have previously experienced**

## 2. Utilize risk and health communication principles and science

'Like watching a train wreck':

Experts say America is behind on COVID-19 vaccine messaging, call for honest, straight talk

[Elizabeth Weise](#), USA TODAY, November 06, 2020

The U.S. government has spent more than \$60 billion creating vaccines to protect against COVID-19 but so far little encouraging Americans to take them.

Public health officials say that's a mistake.

“This needed to happen yesterday. It’s like watching a train wreck happen,” said Daniel Salmon, director of the Institute for Vaccine Safety at Johns Hopkins Bloomberg School of Public Health.

Now, even before any vaccines are approved, is the time to start telling America straight-up what to expect, more than a dozen public health and medical experts told USA TODAY.

## Good communication advice near the end of the news story



### Be brutally honest about expectations

News Monday that the candidate vaccine from Pfizer and its collaborator BioNTech prevented more than 90% of infections with the virus that causes COVID-19 was very positive.

Even so, expectations need to be managed, experts say. The public needs to remember the vaccine will not be immediately available and even when it is it will take months, if not a year, to immunize the entire nation.

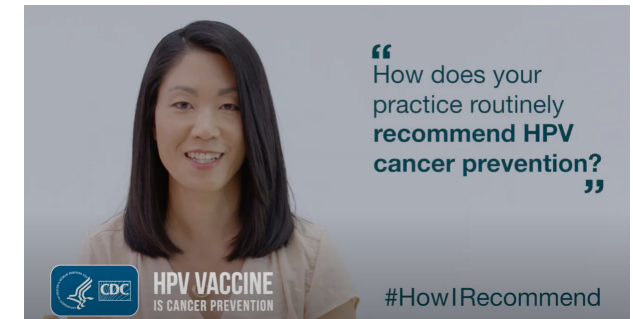
A vaccine is not a magic bullet, said Monica Schoch-Spana, a senior scholar with the Johns Hopkins Center for Health Security. It may not be equally effective for all ages and some people can't, or won't, get vaccinated.

"Just because a vaccine shows up doesn't mean we can throw our masks away and stop washing our hands and social distancing," she said. There's a tremendous amount of work that must happen before that day comes. "It was a mistake by the (Trump) administration to suggest that a vaccine was going to be a be-all and end-all."



# Core risk and health communication principles

- Tailor messages to patient concerns, questions, life situation
- Express empathy and understanding
- Guide expectations
- Highlight individual benefits associated with a recommendation
- Acknowledge individual risks with a recommendation
- Use words and language that are understandable and culturally appropriate – *and it helps when you define key words and ideas, even when you may not think it necessary (e.g., safe, effectiveness, side effects, adverse event, protection from illness vs. protection from infection)*
- Provide helpful framing and context
- Acknowledge uncertainties - as well as the value or need to take actions in the face of uncertainties
- Foreshadow possibilities and potential outcomes



**Vaccine realities matter** – they affect vaccination interest, willingness, and intention, particularly for COVID-19 vaccines



**People's perceptions and beliefs** regarding those realities are also often associated with vaccine hesitancy and acceptance



- Perception that one is susceptible to becoming infected (e.g., with COVID-19) and likely to experience severe illness.
- Belief that the processes, entities and people involved in the vaccine development, assessment, and recommendations are credible and can be trusted
- Belief that the outcomes and benefits from getting a vaccine – such as a new COVID-19 vaccine – are significant and outweigh the risks.
- Belief that becoming immunized is worth taking the steps involved in the vaccination process

***Draw upon what we've learned from influenza vaccination hesitancy and declination; similar beliefs will likely arise with COVID-19 vaccination, including. . .***

- Perceiving or believing COVID-19 is a “manageable” illness and/or severe illness from influenza is very unlikely – including as a result of personal experience with COVID-19.
- Not knowing or believing that COVID-19 vaccination recommendations apply to people like them or that they needed protection from COVID-19.
- Believing other measures are equally or more effective than COVID-19 vaccination (e.g., one's lifestyle, hand washing, diet, vitamins, avoiding people who are sick).
- Perceiving or believing that COVID-19 vaccines are not very effective – and/or that unless duration protection is long, they are not worth getting
- Believing that COVID-19 vaccination would cause undesired effects



# Covid-19 vaccines may have potentially unpleasant side effects

Early data suggest several of the coronavirus vaccines may cause people to feel crummy for a few days. And then they'll need a second dose.

Nov. 12, 2020, 5:04 AM EST / Source: Kaiser Health News

By Liz Szabo and JoNel Aleccia | Kaiser Health News

- The [Pfizer] vaccine, and likely most others, will require two doses to work, injections that must be given weeks apart, company protocols show. Scientists anticipate that the shots will cause enervating flu-like side effects — including sore arms, muscle aches and fever — that could last days and temporarily sideline some people from work or school.
- "We are asking people to take a vaccine that is going to hurt," said Dr. William Schaffner, a professor of preventive medicine and health policy at Vanderbilt University Medical Center. "There are lots of sore arms and substantial numbers of people who feel crummy, with headaches and muscle pain, for a day or two."

# 3. Look for, develop, utilize, and make visible COVID-19 vaccine and vaccination communication resources and advice/examples



## Talking to Patients about COVID-19 Vaccines

Many people have questions about the new coronavirus disease 2019 (COVID-19) vaccines. While much is still unknown, you can start laying the groundwork now for when COVID-19 vaccines are available. The materials below include proven communication strategies and tips for effectively setting expectations and addressing questions from patients.



### Starting COVID-19 Vaccine Conversations Early

Even before you are able to offer COVID-19 vaccination, consider including the topic in your conversations with patients. This will give you the opportunity to set expectations about vaccine availability, including if and when you might recommend vaccination for them, and learn about any concerns they have.



### Engaging in Effective COVID-19 Vaccine Conversations

As patients' most-trusted source of information on vaccines, you play a critical role in helping patients understand the importance of COVID-19 vaccination, as well as if and when it is likely to be recommended for them. [Learn about engaging in effective COVID-19 vaccine conversations.](#)

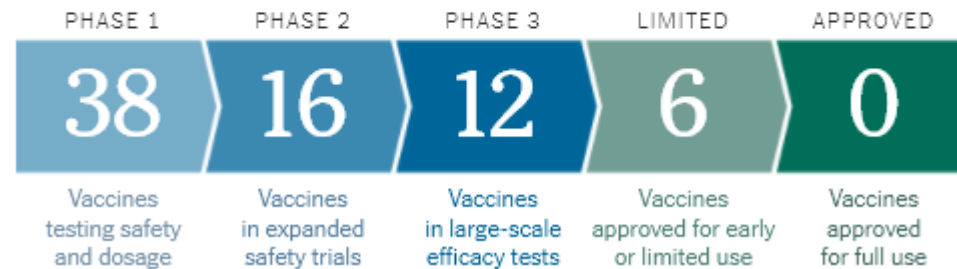


### Answering Patients' Questions

Many patients have similar questions about COVID-19 vaccines. [Prepare for common patient questions](#) and learn techniques to use during your vaccination conversations, including best practices for online communication.

# Coronavirus Vaccine Tracker

By Jonathan Corum, Sui-Lee Wee and Carl Zimmer Updated November 11, 2020



Vaccines typically require years of research and testing before reaching the clinic, but scientists are racing to produce a safe and effective coronavirus vaccine by [next year](#). Researchers are testing **53 vaccines** in clinical trials on humans, and at least 87 preclinical vaccines are [under active investigation](#) in animals.

<https://www.nytimes.com/interactive/2020/science/coronavirus-vaccine-tracker.html?auth=link-dismiss-google1tap>

Helpful framing  
and context



## Covid-19 vaccine may have unpleasant side effects. That will mean it's working.



LIZ SZABO AND JONEL ALECCIA | KAISER HEALTH NEWS  
November 12, 2020, 5:04 AM

Foreshadowing  
possibilities



- Data from early trials of several Covid-19 vaccines suggest that consumers will need to be prepared for side effects that, while technically mild, could disrupt daily life. A senior Pfizer executive [told the news outlet Stat](#) that side effects from the company's vaccine appear to be comparable to those of standard adult vaccines but worse than those of the company's pneumonia vaccine, [Pevnar](#), or typical flu shots.

Helpful  
context,  
Guide  
expectations



- The two-dose Shingrix vaccine, for instance, which protects older adults against the virus that causes painful shingles, results in sore arms in 78 percent of recipients and muscle pain and fatigue in more than 40 percent of those who take it. Pevnar and common flu shots can cause injection-site pain, aches and fever.



**Helpful framing**



How public health experts explain such effects is important, Omer said. "There's evidence that suggests that if you frame pain as a proxy of effectiveness, it's helpful," he said. "If it's hurting a little, it's working."

**Tailor to patient's  
lifesituation**



At the same time, good communication will help consumers plan for such effects. A Covid-19 vaccine is expected to be distributed first to health care staffers and other essential workers, who may not be able to work if they feel sick, said Dr. Eli Perencevich, a professor of internal medicine and epidemiology at University of Iowa Health Care.

**Address and  
remove  
barriers /  
provide  
incentives**



"A lot of folks don't have sick leave. A lot of our essential workers don't have health insurance," he said, suggesting that essential workers should be granted three days of paid leave after they're vaccinated. "These are the things a well-functioning government should provide for to get our economy going again."

## **Remember, COVID-19 vaccine information will be evolving. . .**

The best communication can occur once full data from the Pfizer trial and others are presented, said Dr. Paul Offit, a vaccinologist at Children's Hospital of Philadelphia who sits on the Food and Drug Administration's [advisory board](#) considering Covid-19 vaccines.

"When you look at those data, you can more accurately define what groups of people are most likely to have side effects, what the efficacy is, what we know about how long the efficacy lasts, what we know about how long the safety data have been tested," he said. "I think you have to get ready to communicate that. You can start getting ready now."

**In sum:**

**Reducing vaccination hesitancy, building vaccine confidence and achieving high vaccination rates, particularly for COVID-19 vaccines is more likely to happen when. . .**

- Healthcare providers are confident in the safety, effectiveness, and benefits of COVID-19 vaccines – and can effectively convey that to patients and the public.
- Those involved in COVID-19 vaccination education and advocacy:
  - Acknowledge and address concerns and reluctance
  - Create high COVID-19 vaccine and vaccination recommendation understanding among public health programs, healthcare providers, and immunization coalitions
  - Have and set realistic expectations regarding COVID-19 vaccines and COVID-19 vaccination recommendations, e.g.,
    - Steadily building confidence and acceptance over time vs. trying to achieve immediate high across-the-board demand
    - Tempering expectations regarding whether and how fast community immunity can be achieved with new vaccines
  - Place priority on building trust and confidence through open, continuous, frank, and responsive communication on vaccine effectiveness, safety, and benefits

**Thank you!**

