



# HOSPITAL INFECTION CONTROL & PREVENTION

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## → INSIDE

### Ethical Framework for Vaccine:

CDC advisors cited ethical reasons that included equity, justice, and fairness for selecting healthcare workers as first to receive a COVID-19 vaccine. . . . . 125

### Anti-Vaxxers and Pandemic

**Shot:** In a move that threatens uptake of an eventual SARS-CoV-2 vaccine, the nation's anti-vaccine movement is framing an immunization refusal strategy based on civil rights arguments that likely will be underscored by conspiracy theories. . . . . 126

### Flu Vaccination Hesitancy and

**COVID-19:** Only 59% of U.S. adults said they will get vaccinated against flu in the 2020-2021 season, a survey by the NFID reveals. . . . . 128

### High Confidence a Vaccine Will

**Work:** Despite the unknowns, veteran researchers and epidemiologists are confident that a vaccine against SARS-CoV-2 will be developed and will cover any viral mutations. . . . . 131

**Relias Media**

From Relias

## Trust but Verify: IPs, Colleagues Await a SARS-CoV-2 Vaccine

*Healthcare workers will be first to be immunized*

*By Gary Evans, Medical Writer*

**A**lthough there is broad concern about the rapid pace and oversight of COVID-19 vaccine development, infection preventionists (IPs) are ready to trust the time-honored protocols and process for safety and efficacy, says **Connie Steed**, MSN, RN, CIC, FAPIC, president of the Association for Professionals in Infection Control and Epidemiology (APIC).

“We need to trust that the medical system will follow the prescribed steps to ensure the safety and efficacy of the vaccine,” says Steed, director of infection prevention and control at Prisma Health in Greenville, SC. “I really can’t imagine our agencies — the Food and Drug Administration (FDA) and others — releasing a vaccine that isn’t safe.”

**Peter Marks**, MD, PhD, is director of the FDA’s Center for Biologics Evaluation and Research (CBER), which is responsible for ensuring the safety and

effectiveness of vaccines and biological products. In a recent live-streamed interview, he expressed a personal stake in the safety issue.

“We will do what we need to do to get the appropriate safety data to make sure the deployment of any vaccine is safe,” Marks said. “Safety is what keeps me up at night.”

The review process for the COVID-19 vaccines in various trials will undergo the scrutiny of hundreds of FDA career officials working in areas such as biologics quality, biostatistics, and epidemiology, undertaking a meticulous line-by-line review of submitted data, he said.

“We have the ability to do our own analysis and compare it to the company,” he says. “Perhaps there is a certain type of patient that the company included in the analysis that we don’t think should be included. We can leave

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those out and see if the end result is similar or different between the company's and our own."

The tone of Marks' comments and FDA guidelines suggest an emergency use authorization rather than full licensure will be the first step for a vaccine. "We will look at the safety datasets that come in, and we have made it clear that we want a medium of two months of follow-up for any vaccine that [is submitted]," he said. "While it would be nice to have [longer], we have to balance the safety we get up front with the need to try to save lives with the vaccine. We have a virus that is killing some 1,000 people a day in the [United States], so there is a balance there."

The White House initially balked at this two-month follow-up period, continuing a pattern of political pressure to fast-track a vaccine that targets healthcare workers as priority one. However, the FDA held fast and the requirement remains in place in a recently issued vaccine guideline.

"Data from Phase III studies should include a median follow-up duration of at least two months after completion of the full vaccination regimen to help provide adequate information to assess a vaccine's benefit-risk profile, including: adverse events; cases of severe COVID-19 disease among study subjects; and cases of COVID-19 occurring during the timeframe when adaptive (rather than innate) and memory immune responses to the vaccine would be responsible for a protective effect," the FDA draft states.<sup>1</sup>

## 'Vaccinations Require Trust'

However, distrust still shrouds the vaccine process, driven in part by ancillary incidents like the White

House's tight-lipped response to the president's illness and a large COVID-19 outbreak at 1600 Pennsylvania Avenue. **Rochelle Walensky**, MD, MPH, FIDSA, recently put these events in context at a press conference by the Infectious Diseases Society of America (IDSA).

"Public trust is going to be key," said Walensky, chief of infectious diseases at Massachusetts General Hospital in Boston. "There is a level of public trust associated with what is happening in the White House, but even over the last several months there has been real challenges in public trust of what is going on at the FDA and the CDC (Centers for Disease Control and Prevention). Those potentially could do more damage because we really very much need the science to lead the way. There is a famous line that says vaccines don't save people, but vaccinations do. Vaccinations require trust."

The CDC recently reissued previously pulled guidance on airborne transmission of the coronavirus. The CDC now says airborne transmission SARS-CoV-2 appears to have occurred under the following circumstances:

- Enclosed spaces within which an infectious person either exposed susceptible people at the same time or to which susceptible people were exposed shortly after the infectious person had left the space.
- Prolonged exposure to respiratory particles, often generated with expiratory exertion (e.g., shouting, singing, exercising) that increased the concentration of suspended respiratory droplets in the air space.
- Inadequate ventilation or air handling that allowed a build-up of suspended small respiratory droplets and particles.<sup>2</sup>

The cumulative effect of these backtracks and revisions may create doubt that will be seized on by the nation's well-established anti-vaccine movement.

“What I am particularly concerned about is that if there's any rush to judgment about a COVID vaccination — if they end trials early, if there is an inadequate safety database — that will really energize the anti-vaccination [movement],” says **William Schaffner**, MD, professor of preventive medicine at Vanderbilt University. “They will come out and say an awful lot about conspiracies between the government and industry, big pharma and wanting to make profits — we will hear this very strongly. If it has the taint of political influence, that could really harm us across the spectrum of vaccination.”

A liaison member on the CDC's Advisory Committee on Immunization Practices (ACIP), Schaffner says there is vaccine skepticism even in the medical community. “I don't just mean doctors — I mean nurses and other staff — about the process whereby vaccines will be evaluated both for effectiveness and safety,” he says. “I've had exchanges with people through email and phone, and virtually everyone around the country is saying, ‘We are seeing medical colleagues express both annoyance and real skepticism about the vaccine evaluation process.’ Even among healthcare workers, we are going to have to do an awful lot of education, provide data and reassurance, in order for them to take the vaccine.”

However, a thorough review by FDA scientists could bridge the gap between skepticism and trust, particularly if the eventual vaccine is recommended by the agency's highly regarded Vaccines and

Related Biological Products Advisory Committee, he says.

“If that committee speaks to the American public and says we have reviewed this and think it is appropriate to go forward for emergency use authorization, I think practicing doctors, nurses, and others will take much comfort and reassurance in that,” he says.

Any vaccine release will include a pharmacological vigilance plan that will follow those immunized through claim databases linked to medical records, Marks said. “We see if there are issues arising in real time as these vaccines are deployed,” he said. “The FDA will do that in collaboration with the CDC.”

The CDC will conduct text-message monitoring of healthcare workers and other vaccine recipients through a program called the Vaccine Safety Assessment for Essential Workers (V-SAFE). The existing Vaccine Adverse Event Reporting System (VAERS) also will include a COVID-19 vaccine component. That includes a requirement that COVID-19 vaccine-related deaths must be reported in one day, serious incidents in three days, and non-serious reports within five days.

**Editor's note:** *There is a precedent for a disastrous rollout of a pandemic vaccine. In 1976, the H1N1 “swine flu” vaccine was linked to paralysis and fatalities in a pandemic that never materialized after an initial cluster of infections.<sup>3</sup> One adverse effect of that vaccine was an increase in Guillain-Barré syndrome (GBS), a rare autoimmune disease in which the body turns on its own nerve cells. In 1976, public health officials immunized more than 40 million people with a newly developed vaccine. There were several hundred cases of GBS that included about 30 deaths, prompting the enduring observation that the vaccine*

*killed more people than the disease did. The adverse reactions were not fully recognized until a large rollout of the vaccine program, which then was halted.*

## Healthcare Workers on Point

Healthcare workers have been designated as the highest priority group to receive the first safe and effective SARS-CoV-2 vaccine that is cleared for use in the United States, according to ACIP.

The committee used an ethical framework to make what one member described as a series of Solomonic decisions at a Sept. 22, 2020, meeting. “When and if a safe and effective COVID-19 vaccine is approved by the [FDA], healthcare workers would be tier one recipients,” ACIP recommended. “This group includes some 20 million people who work in hospitals, long-term care facilities, assisted living facilities, skilled nursing facilities, outpatient settings, home healthcare, pharmacies, [emergency medical services], public health, and other groups.”

After healthcare workers, the subsequent 1B priority groups for COVID-19 vaccination were open to further refinement, but the order described at the meeting placed non-healthcare essential service workers next, followed by people with high-risk medical conditions, and those over age 65 years.

Some ethical models for pandemic vaccine uptake have broken out frontline medical workers, but ACIP argued for a broader immunization strategy throughout healthcare. The ACIP healthcare category includes those not directly involved in patient care but potentially exposed to

infectious agents while working in a healthcare setting.

There was some discussion of voting on the matter at a previous meeting, but ACIP Chair **José Romero**, MD, FAAP, chief medical officer at the Arkansas Department of Health in Little Rock, said the committee would await weigh-in from the FDA before formally voting.

“Once the data is available from Phase III clinical trials, the ACIP Vaccine COVID-19 Workgroup will conduct an independent review of safety and efficacy data and present policy options to the full committee,” Romero said. “If and when the FDA authorizes or approves a vaccine, then ACIP will have an emergency meeting and vote on vaccine recommendations and populations for use.”

## Ethical Principles

An ACIP workgroup reviewed ethical principles by several medical groups on allocating a potential vaccine, concluding that all ranked vaccine administration to healthcare workers as critical to the pandemic response. The ethical standards consulted by ACIP include those by the World Health Organization (WHO) Strategic Advisory Group of Experts (SAGE), the Johns Hopkins Bloomberg School of Public Health, and the National Academies of Sciences, Engineering, and Medicine.

“These are the right principles — they take the best components of the SAGE, Hopkins, and [National Academy of Medicine] models,” said ACIP member **Peter Szilagyi**, MD, MPH, a pediatrics and research professor at the University of California in Los Angeles. “I think one of the challenges we are all facing — and this feels very much

like a Solomon’s choice — we have to remember that over [time], the vaccine supply will go up. What we are really talking about is making the decisions for shorter time periods. One of the challenges we feel is that there is a wide diversity of risk even in all of these groups. Even in the healthcare group, essential workers, and those with chronic conditions, there is a wide diversity of risk.”

Given the unknowns, the emphasis on safety and trust must be underscored throughout the process, said ACIP member **Grace M. Lee**, MD, MPH, of Stanford University.

“I agree that it is challenging to communicate around vaccines and vaccine confidence without actually having the clinical trial data in hand,” she said. “But I still think that perhaps what we can do is continue to emphasize the process for decision making and how much emphasis we are all placing on transparency.”

With transparency placed as the key structural underlying principle, ACIP ethical reasons for selecting healthcare workers as priority one recipients of COVID-19 vaccine included multiple factors, such as maximizing immunization benefits essential to the pandemic response as well as equity, since healthcare has a high degree of representation of minorities and low-income workers. (See “*Ethical Framework for Prioritizing Healthcare Workers for Vaccine.*”)

In that regard, healthcare workers have paid a high price for holding the line against the pandemic. In what is likely a substantial undercount, the CDC reports that between Feb. 12 and July 16, 2020, there were 100,570 COVID-19 cases in healthcare workers and 641 deaths reported in the United States.<sup>4</sup> General trends in COVID-19 in healthcare mortality include the deaths occurred in those who were

older, male, Asian, Black, and with an underlying medical condition, the CDC reported. The agency cobbled together data from various reporting systems and methods, and some data reflect only the subset provided by forms and limited public health jurisdictions.

“Compared with nonfatal COVID-19 [healthcare personnel] cases, a higher percentage of fatal cases occurred in males (38% vs. 22%), persons age ≥ 65 years (44% vs. 4%), non-Hispanic Asians (20% vs. 9%), non-Hispanic Blacks (32% vs. 25%), and persons with any of the 10 underlying medical conditions specified on the case report form (92% vs. 41%),” the CDC reported.

“In terms of feasibility, large health systems have occupational health departments to facilitate vaccine clinics,” said **Kathleen Dooling**, MD, MPH, a member of the ACIP workgroup and a medical officer in the CDC’s division of viral diseases.

Healthcare facilities also may have freezers, if needed, for cold storage of vaccines. Another plus is that healthcare workers have fairly high rates of influenza vaccine acceptance.

“However, it will be more challenging to reach rural healthcare facilities, long-term care, small independent clinics, and home healthcare workers,” Dooling said.

Medical workers also have high scientific literacy, a factor ACIP weighed in favor of beginning with healthcare overall.

## Social Vulnerability

Although healthcare workers may be more open to vaccine receipt than members of the public, particularly vulnerable minority populations, the theme of distrust in the process and

the ultimate vaccine that emerges was a common thread throughout ACIP discussions. ACIP Chair Romero warned vaccine hesitancy and distrust was going to be an ongoing issue.

“I can only speak from my experience within the advisory groups from our department of health for underrepresented minorities,” he said. “There is an extreme disconfidence in this vaccine — disconfidence. I have been trying to reach out to the Latino population primarily by having specific, targeted talks with the leaders of that group. I think we need to begin these now if there is to be any sense of confidence in the vaccine among the minority populations.”

Given this backdrop, one ACIP member said the federal government’s name for its vaccine development push is unfortunate.

“The title ‘Operation Warp Speed’ scares a lot of people,” said **Lynn Bahta**, RN, MPH, CPH, an immunization consultant in the Minnesota Department of Health in Saint Paul. “It would be helpful if our national leaders at the FDA and CDC could talk about what that means in plain language. [That] might help people with some of the anxiety that we have been hearing about vaccinations for COVID-19.”

The challenge of gaining trust was underscored by a presentation showing how maps of COVID-19 cases and hospitalization virtually mirror maps of ethnic minority and poverty indicators.

In that regard, **Megan Wallace**, DrPH, MPH, described the Social Vulnerability Index (SVI), which was developed by the CDC to identify communities that need support before, during, and after public health emergencies. The index uses a measure of social determinants of health using census data and ranks each county and census tract

## Ethical Framework for Prioritizing Healthcare Workers for Vaccine

*Maximize benefit, equity, justice, fairness*

**C**enters for Disease Control and Prevention advisors cited ethical reasons that included these summarized below for selecting healthcare workers as first to receive a COVID-19 vaccine:

### Maximize Benefits

- Essential for response;
- May decrease transmission to patients, coworkers, community;
- Decrease COVID-19 morbidity and mortality in some healthcare personnel (HCP), since approximately 40% have high-risk conditions or are over 65 years of age;
- May be in low redundancy jobs where absenteeism may compromise/stop care.

### Equity

- Overrepresentation of some racial or ethnic minority groups and lower income earners;
- Seroprevalence of SARS-CoV-2 higher among Hispanic and non-Hispanic Black HCP;
- Larger proportion of staff at long-term care facilities are female and non-Hispanic Black persons and are disproportionately lower-wage workers.

### Justice

- HCP recommended for early phase vaccination have an equal opportunity to access vaccine;
- Definition of HCP includes “paid and unpaid persons serving in healthcare settings.”

### Fairness

- Can help reduce disparities in health outcomes;
- Acknowledges increased risk of COVID-19 exposure because of the essential nature of their work. ■

on 15 social vulnerability factors. Counties with the highest social vulnerability had greater risk of being a COVID-19 hotspot compared to counties with the lowest social vulnerability. Racial and ethnic minority groups represent 40% of the total U.S. population, but nearly 60% of COVID-19 cases, Wallace said.

“We need to be very proactive in our educational pieces to reach out to our racial and ethnic minorities, our essential workers and people with

low economic means,” said **Sandra Fryhofer**, MD, an ACIP liaison member representing the American Medical Association.

Historical context is important. Researchers — even some ostensibly representing the government — have enacted egregious experiments on minority and vulnerable populations. To cite one of the most infamous, the Tuskegee, AL, syphilis experiment studied the progression of the disease in elderly black men from 1942 to

1972, continuing decades after safe and effective treatment was available in the 1940s.

The National Medical Association (NMA), a group of Black physicians with broad representation in public health, has established a taskforce to weigh in on the safety and efficacy of a COVID-19 vaccine and provide recommendations to their respective communities.<sup>5</sup>

“We do have a crisis in vaccine confidence now,” the FDA’s Marx said. “There are a lot of factors that have led to that, but our job at FDA is to do whatever we can through transparency and make it clear for one purpose only — to make sure we get a quality, safe, and effective vaccine and people can see transparently that is what is happening here.”

A vaccine with 70% to 80% efficacy given to 70% to 80% of the population would give the country “a chance of having herd immunity,” he said. “But it is only going to happen if people have confidence enough to get vaccinated.” ■

## REFERENCES

1. Food and Drug Administration. Emergency Use Authorization for vaccines to prevent COVID-19. Oct. 9, 2020. <https://www.fda.gov/regulatory-information/search-fda-guidance-documents/emergency-use-authorization-vaccines-prevent-covid-19>
2. Centers for Disease Control and Prevention. Scientific Brief: SARS-CoV-2 and potential airborne transmission. Updated Oct. 5, 2020. <https://www.cdc.gov/coronavirus/2019-ncov/more/scientific-brief-sars-cov-2.html>
3. Fineberg HV. Swine flu of 1976: Lessons from the past. *Bull World Health Organ* 2009;87:414-415.
4. Hughes MM, Groenewold MR, Lessem SE, et al. Update: Characteristics of health care personnel with COVID-19 — United States, February 12–July 16, 2020. *MMWR Morb Mortal Wkly Rep* 2020;69:1364-1368.
5. National Medical Association. NMA forms COVID-19 Task Force Take the Politics Out of Vaccine Development. Sept. 21, 2020. <https://www.nmanet.org/news/527978/NMA-Forms-COVID-19-Task-Force-Take-the-Politics-Out-of-Vaccine-Development.htm>

# Expert: Anti-Vaxxers Will Try to Undermine Pandemic Vaccine

## Group moves to civil rights arguments for refusing immunization

In a move that threatens uptake of an eventual SARS-CoV-2 vaccine, the nation’s anti-vaccine movement is framing an immunization refusal strategy based on civil rights arguments that likely will be underscored by conspiracy theories, says **David A. Broniatowski**, PhD, a professor of engineering and applied science at George Washington University in Washington, DC.

Previously, Broniatowski published research on how Russian anti-vaccine bots and trolls were mobilized during the 2016 presidential election.<sup>1</sup> That paper was followed earlier this year by a study on how vaccine communications have been weaponized through identity politics.<sup>2</sup>

His latest paper — an analysis of 204 Facebook pages of anti-vax

groups — traces how a large measles outbreak at Disneyland in 2015 led to the emergence of a common anti-vaccine narrative, “emphasizing civil rights and freedom from elitist government vaccine opposition.”<sup>3</sup>

“Our results demonstrate how the vaccine opponent discourse has increased in volume and evolved over time, with three distinct phases: vaccine opposition becomes mainstream, popular media spokesmen target civil liberties pages, and civil liberties pages promote state-level political mobilization,” Broniatowski and colleagues concluded.

*Hospital Infection Control & Prevention* asked Broniatowski to comment on the implications of these findings on an eventual COVID-19

vaccine in the following interview, which has been edited for length and clarity.

**HIC:** Do you think this established vaccine resistance will affect the uptake of an eventual COVID-19 vaccine?

**Broniatowski:** “Yes. One of the things that is interesting about the COVID discourse online is that it really draws pretty heavily on what we’ve seen before in the anti-vaccine communities. A lot of the things we are seeing around COVID — not just about a vaccine but wearing masks — are basically a page out of the anti-vaxxer playbook. A lot of the strategies and approaches that these vaccine opponents have been using and really developing and testing for the last five years have parallels

in COVID-19. We saw the movie “Vaxxed” released in 2016, and that really put civil liberties as an issue on the map. Before that it was localized in California and it was one of many issues. That [film] really made it an issue. People learned a lesson — these kinds of movies are effective. Then we saw “Plandemic” show up in the COVID discourse. This is another professionally produced movie. So, we are seeing similar sorts of strategies.

**HIC:** Will the widely perceived politicized response to the pandemic be an issue in refusing vaccine?

**Broniatowski:** I think we can expect to see that when a COVID-19 vaccine is available there is going to be a sort of hardcore group of people that will oppose it. It could be a pretty precarious situation because any vaccine that gets released — if we are talking about releasing it on the timeline that the president has said — there is already going to be the perception that it was rushed. There is going to be all the political overtones of that. That is going to make things a little more dicey, and then on top of that we have all these existing narratives and rationales for why people shouldn't take it. What our studies show is we have very motivated groups of people who are actively mobilizing in state-level politics. Not only are we going to see people refusing to take it as individuals, but I think we are probably going to start seeing groups of people mobilizing to pass legislation to make it harder for us to reach herd immunity using the vaccine.

**HIC:** There has been some concern expressed about protests and security at vaccine administration sites.

**Broniatowski:** We have already seen in our data that Facebook pages have been used to organize rallies and

protests. Given that people are already feeling pretty willing to mobilize around things like masks. Certainly, if there is a perception that an available vaccine is mandatory or in some way interferes with people's civil liberties, we can expect to see some degree of action around that.

**HIC:** Civil liberties issues would seem to be in conflict with vaccines required for school attendance or mandatory flu immunization at many healthcare facilities.

“I THINK WE ARE PROBABLY GOING TO START SEEING GROUPS OF PEOPLE MOBILIZING TO PASS LEGISLATION TO MAKE IT HARDER FOR US TO REACH HERD IMMUNITY USING THE VACCINE.”

**Broniatowski:** There are a few different versions of this. One of them is that you have people who are saying it is their own choice whether or not their children get vaccinated. That generally applies to childhood vaccinations, so we are talking about [measles, mumps, rubella]. In other cases — for example, flu vaccine — there are some cases where workplaces will mandate flu vaccine ... if you work for a healthcare organization or hospital. The employer will generally require that you take the flu vaccine. There are similar kinds of mandates in other settings. We might see

opposition to that crop up around COVID. For example, if we start to see workplaces say you are not allowed to come into work unless you get the COVID vaccine, then people will seek legislative interventions [claiming] workplace discrimination, something like that.

**HIC:** Just to clarify: If a COVID-19 vaccine is approved under a Food and Drug Administration emergency use authorization, the general consensus is it could not be mandated. You also note these anti-vaccine groups are not restricted to Facebook but have a presence across social media.

**Broniatowski:** Of course, it's not just Facebook, there are several different platforms. I haven't personally engaged with Facebook's policy team regarding this, but there certainly are a lot of people who are requesting that they do more. People who are using Facebook are very sophisticated in the way they are doing it. Facebook has become more strict on vaccine misinformation. But that doesn't necessarily equate to the civil liberties argument. We are walking a fine line here. It's one thing to say it's demonstrably false that vaccines cause autism. We know that leads to hesitation on vaccinating and allows all sorts of bad things. So, they are not going to allow that particular statement to be on a social media platform. That is clearly misinformation. But what if you are saying something like attend a rally at such and such a place? “We are going to talk about vaccines and you can learn what your options are.” For the anti-vaccine community, that is code for “Come to our rally and we are going to tell you all the ways to oppose vaccination.” Should Facebook say you are not allowed to organize? That becomes problematic. If you try to disallow these groups,

you push them onto another platform.

**HIC:** Why do these groups seem so drawn to conspiracy theories?

**Broniatowski:** There are a few reasons. I don't think that any of these are the complete reason, but they are contributing factors. First of all, a lot of conspiracy-oriented groups incorporate anti-vaccine tropes. For example, QAnon has been in the news a lot recently. They have incorporated anti-vaccine tropes into their mythology — also chemtrails, antifuoride, flat earth. Just about every conspiracy theory under the sun shows up in some form or another on QAnon. They don't necessarily care if the conspiracy theories are right or wrong — in many cases they contradict each other. It allows the theory itself to spread and gives them something to hang their hat on.

Beyond that, conspiracy-oriented thinking has been present in anti-vaccine discourse, basically, since

there has been anti-vaccine discourse. When you are talking about opposing vaccination, you are fundamentally talking about — especially in the civil liberties world — issues of health freedom. In this particular case, it is about do you have a choice about whether or not you want to be vaccinated? If you believe the government or somebody who is vaccinating is out to get you, if you believe some conspiracy theory like people are going to profit off of your poor health — you are more likely to refuse to be vaccinated. If you just leave it at it's your choice to vaccinate or not — [most people] think it's a good idea. You have to tell them it's their choice and give them a "why" it is a good choice not to vaccinate. It's framed as freedom of choice, but the implicit assumption is vaccine is not the right choice. This is something public health officials could take advantage of. If we make the cases that vaccination is the right choice and

appeal to people's values — everybody wants to save lives. If we can make the case that vaccinations save lives in a convincing manner and do that in a way that is culturally sensitive, that will work in our favor. ■

## REFERENCES

1. Broniatowski DA, Jamison AM, Qi S, et al. Weaponized health communication: Twitter bots and Russian trolls amplify the vaccine debate. *Am J Public Health* 2018;108:1378-1384.
2. Broniatowski DA, Quinn SC, Dredze M, Jamison AM. Vaccine communication as weaponized identity politics. *Am J Public Health* 2020;110:617-618.
3. Broniatowski DA, Jamison AM, Johnson NF, et al. Facebook pages, the "Disneyland" measles outbreak, and promotion of vaccine refusal as a civil right, 2009-2019. *Am J Public Health* 2020;110:S312-S318.

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# Flu Vaccination Hesitancy in the Time of COVID-19

*Some express doubt, declination by many likely*

Despite heavy emphasis on seasonal influenza immunization during the ongoing pandemic, only 59% of U.S. adults said they will get the vaccinated this year, a survey by the National Foundation for Infectious Diseases (NFID) reveals.

Those not planning to be immunized for flu cited a variety of reasons, including 17% who fear they might get COVID-19 if they go out to get a flu shot. Other reasons were familiar anti-vaccine myths:

- 32% said they never get the flu
- 29% are concerned about potential side effects from the vaccine

- 22% are concerned about getting flu from the vaccine

"We in the infectious disease community have been talking about a potential double-barreled respiratory virus season when flu and COVID-19 converge," NFID Medical Director **William Schaffner**, MD, said at a recent press conference. "There is a real risk that, even if we only have a moderate flu season, we could be in for a rough few months ahead."

It will be an unusual flu immunization for healthcare workers as well, since those working from home will

be difficult to reach through typical inhouse campaigns.

"Our employee health teams had to come up with a plan to make sure individuals working virtually can get the vaccine," says **Connie Steed**, MSN, RN, CIC, director of infection prevention and control at Prisma Health in Greenville, SC. "We have developed drive-throughs for flu vaccine that these employees can use, including giving them certain times of the day at every one of our locations."

Although flu vaccine efficacy can vary year to year, Schaffner

made the traditional argument that immunization could keep you out of the hospital or the morgue.

“Flu vaccines help prevent tens of thousands of hospitalizations each year and other serious complications, such as heart attack and stroke,” Schaffner said. “Even if you do get flu — despite getting vaccinated — you are likely to [have] a less severe and shorter illness. You are far less likely to get pneumonia or to be hospitalized, and you are less likely to die.”

The NFID survey found that 46% of U.S. adults are worried about co-infection with flu and COVID-19. The fear of co-infections was cited by 28% as making them more likely to get immunized for flu.

Complicating matters, the two respiratory diseases present the clinician with very similar symptoms — with the possible exception of the loss of sense of smell that can occur with COVID-19.

“Flu or COVID-19 — it really is a diagnostic challenge,” said Anthony Fauci, MD, director of the National Institute of Health’s National Institute for Allergy and Infectious Diseases. “We refer to it as flu-like illness, fever, chills, cough, stuffy nose, body aches, headaches, and maybe even some [gastrointestinal] symptoms, particularly among children, with vomiting and diarrhea. Steps to fight the flu and COVID-19 overlap considerably. We don’t want these diseases together, but the good news is some of commonly practiced public health measures are good for both of these.”

This was not a message that was greatly emphasized at the NFID press conference, in part because the annual event is heavily focused on convincing people to get the seasonal flu shot. However, the Centers for Disease Control and Prevention

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(CDC) recently reported a very mild flu season in the Southern Hemisphere through a combination of immunization and COVID-19 measures, such as masking. In fact, the first signs of this effect were seen at the tail end of the 2019-2020 flu season in the United States.

“Following widespread adoption of community mitigation measures to reduce transmission of SARS-CoV-2, the percentage of U.S. respiratory specimens submitted for influenza testing that tested positive decreased from 20% to 2.3% and has remained at historically low interseasonal levels (0.2% vs. 1%-2%),” the CDC noted.<sup>1</sup> “Data from Southern Hemisphere countries also indicate little influenza activity.”

Although there are caveats and cautions, the CDC suggested this finding may carry implications for future flu seasons if masking is more normalized after the pandemic.

“Although causality cannot be inferred from these ecological comparisons, the consistent trends over time and place are compelling and biologically plausible,” the CDC said. “Like SARS-CoV-2, influenza viruses are spread primarily by droplet transmission; the lower transmissibility of seasonal influenza virus (R0 = 1.28) compared with that of SARS-CoV-2 (R0 = 2-3.5) likely contributed to a more substantial interruption in influenza transmission.”

In any case, the CDC has developed a new rapid test that can detect and differentiate both SARS-CoV-2 (Flu SC2) and influenza A and B. The Multiplex Assay “provides a sensitive, nucleic-acid-based diagnostic tool for evaluation of specimens from patients in the acute phase of infection,” the CDC notes.<sup>2</sup>

Overall, the CDC estimates there were 38 million flu illnesses, 18

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million flu-associated medical visits, 400,000 flu hospitalizations, and 22,000 flu deaths during the 2019-2020 season.

In addition, the CDC estimates that flu vaccines prevented 7.5 million flu illnesses, 3.7 million flu-associated medical visits, 105,000 flu hospitalizations, and 6,300 flu deaths last season.

## Flu Risk to Children

Although COVID-19 certainly has caused some infections and deaths in children, they generally have fared well against the virus compared to other age groups. Influenza, on the other hand, can cause severe disease in children.

“The 2019-2020 flu season was terrible for kids,” said **Patricia Whitley-Williams**, MD, a pediatrician and president of the NFID. “There were 188 flu-related deaths reported in children to the CDC. This matches the record set in 2017-2018 for the highest number of pediatric flu deaths reported during a regular flu season. We also know that the number of pediatric deaths reported to the CDC each season is likely lower than the actual number.”

What is truly devastating is that more than half of these children were healthy — they had no preexisting conditions, she added.

Flu vaccination is critical because it can reduce a child’s risk of death significantly, she said. For example, take a 6-year-old child vaccinated three years ago. He developed a local reaction at the site and the parents forbade future vaccinations, she noted.

“The family members did not receive flu vaccine either. Fast-forward to January of 2020 — this child is now 9 years of age and has influenza A,” Whitley-Williams said. “He was subsequently admitted to the hospital and quickly developed a secondary bacterial pneumonia. Before you know it, he was in a life-threatening situation in our pediatric intensive care unit — all because of not getting a flu vaccination. Thank God the child did recover and was vaccinated. I can tell you this was a learning lesson for that family — all of the family members got vaccinated.”

## Social Equity Concerns

The NFID survey found that Black (61%) and Hispanic adults

(53%) are more likely to be worried about contracting both infections at the same time compared to White adults (39%). However, despite this concern, about 62% of Black adults said they are either unsure about getting the shot or will not get immunized this year.

“This disconnect is a big concern,” Whitley-Williams said. “Black adults are more worried about being infected with COVID-19 and flu at the same time — more so than their whiter counterparts. This makes sense. Black adults in the [United States] are more likely to be hospitalized and to die from COVID-19 as they are for flu.”

The NFID survey also found that 39% of Blacks will not take an

antiviral medication for flu, even if recommended by a healthcare provider. Explanatory factors for these attitudes include unconscious bias, institutional racism, and a warranted distrust of traditional medicine by at-risk populations.

The survey also found that 22% of U.S. adults who are at high risk for flu-related complications (e.g., adults age 65 years and older and adults with diabetes, asthma, or heart disease) are not planning to get vaccinated this season.

Interviews for this survey were conducted between Aug. 17 and Aug. 19, 2020, with adults age 18 years and over representing the 50 states and the District of Columbia.

The survey included 1,000 complete responses — 897 via the web and 103 via telephone. ■

## REFERENCES

1. Olsen SJ, Azziz-Baumgartner E, Budd AP, et al. Decreased influenza activity during the COVID-19 pandemic — United States, Australia, Chile, and South Africa, 2020. *MMWR Morb Mortal Wkly Rep* 2020;69:1305-1309.
2. Centers for Disease Control and Prevention. CDC’s diagnostic multiplex assay for flu and COVID-19 at public health laboratories and supplies. Updated Sept. 3, 2020. <https://www.cdc.gov/coronavirus/2019-ncov/lab/multiplex.html>

# COVID-19 Mutations not Expected to Elude Vaccine

*High confidence a vaccine will work*

**D**espite the unknowns, veteran researchers and epidemiologists are expressing fairly high confidence that a vaccine against SARS-CoV-2 will be developed.

For example, **Richard Wenzel**, MD, MSc, emeritus chairman and professor of internal medicine at Virginia Commonwealth University in Richmond, points to lingering signs of immunity in people who acquired the original severe acute respiratory syndrome (SARS) in 2003. Infectious antibodies faded within a few months, but “there is T cell recognition 17 years after SARS in some patients,” he says.

Currently, there are more than 100 vaccines that are in the preclinical stage of investigation, and about a half dozen have reached Phase III trials. Three of the latter are in Phase III trials in the United States, said

**Susan Bailey**, MD, president of the American Medical Association.

“All the vaccines that I am aware of address the so-called spike protein, the S protein,” she said in a recent webinar. “I don’t think that any mutations that we are seeing would necessarily affect the response to different vaccines. In other words — the vaccine will still be effective. We don’t think that COVID is going to act like influenza does, which mutates like crazy all the time, and that’s why we have to have a new vaccine for flu every year and they typically will contain three to four different strains.

COVID doesn’t seem to behave that way.”

**Dushyantha Jayaweera**, MD, infectious disease specialist at the University of Miami, concurred.

“COVID is not one of those smart viruses that hides its receptive binding domain from exposure,” he said during the webinar. “So, it is easier to create a vaccine for COVID-19 and also it will be extremely difficult for COVID-19 to mutate and avoid the antibodies. So, we believe that even if there are mutations, our vaccines would still work.” ■

## COMING IN FUTURE MONTHS

- Multisystem inflammatory syndrome in those with SARS-CoV-2 infection
- Healthcare-associated infections among critically ill children
- Antibiotic resistance in light of COVID-19
- Facing a nosocomial outbreak of a pandemic virus



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## CME/CE OBJECTIVES

Upon completion of this educational activity, participants should be able to:

1. Identify the clinical, legal, or educational issues encountered by infection preventionists and epidemiologists;
2. Describe the effect of infection control and prevention issues on nurses, hospitals, or the healthcare industry in general;
3. Cite solutions to the problems encountered by infection preventionists based on guidelines from the relevant regulatory authorities, and/or independent recommendations from clinicians at individual institutions.

## CME/CE QUESTIONS

- 1. Healthcare workers were designated as first priority to receive a COVID-19 vaccine. According to the order described at a Centers for Disease Control and Prevention meeting, which group would be next to be immunized?**
  - a. Non-healthcare essential service workers
  - b. Those with high-risk medical conditions
  - c. Those age 70 years and older
  - d. Children attending school
- 2. The Vaccine Adverse Event Reporting System will include a COVID-19 vaccine component requiring that COVID-19 vaccine-related serious incidents must be reported within how many days?**
  - a. One
  - b. Two
  - c. Three
  - d. Five
- 3. With heavy emphasis on seasonal influenza immunization during the ongoing pandemic, what percentage of surveyed U.S. adults said they will get vaccinated in 2020-2021 season?**
  - a. 32%
  - b. 40%
  - c. 59%
  - d. 70%
- 4. Patricia Whitley-Williams, MD, said that what is truly devastating about the deaths in children during the last flu season is that more than half:**
  - a. had been immunized.
  - b. had seen a healthcare provider but were not vaccinated.
  - c. had no preexisting conditions.
  - d. lived in areas where local vaccination was not available.