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***Addressing Racial and
Ethnic Disparities in
Influenza Vaccination***

webinar

Addressing Racial and Ethnic Disparities in Influenza Vaccination

Keith Ferdinand, M.D., FACC, FAHA, FNLA, FASCP

Professor of Medicine, Gerald S. Berenson Chair of Preventative Cardiology, Tulane University School of Medicine

Webinar, November 11, 2021

“To a large extent, it’s a failure of our healthcare delivery system. It’s a failure of us as a society that we have lifesaving vaccines and they’re not being taken up equally across all populations, including the most high-risk populations.”

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There is ample evidence of disparities in influenza vaccination rates among racial/ethnic groups and a corresponding prevalence of comorbid conditions and inequities in health outcomes. Dr. Keith Ferdinand, professor of medicine and Gerald S. Berenson Chair of Preventative Cardiology at Tulane University School of Medicine, shared evidence of the causes of these disparities and discussed best practices to support influenza vaccine equity.

Disparities in Vaccination Rates

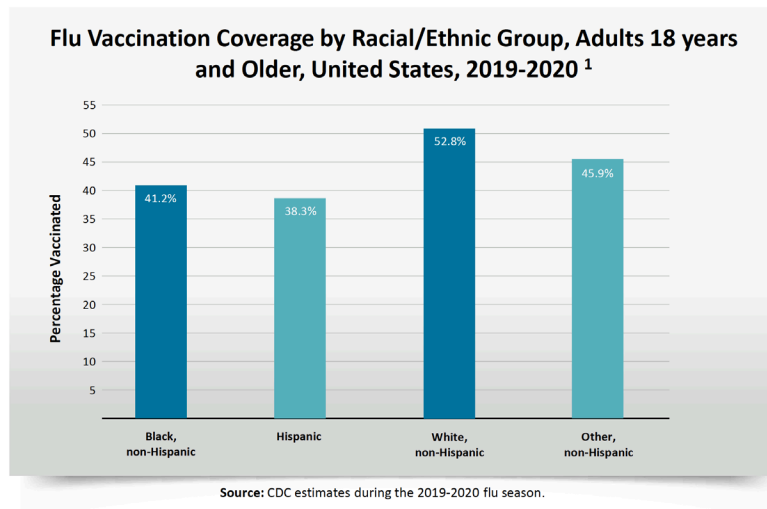
For Dr. Ferdinand, interest in immunization began while working with the Healthy Heart Community Prevention Project. For decades, this project had conducted blood pressure screening, cholesterol screening, and diabetes education. “I became increasingly aware,” said Dr. Ferdinand, “that the persons who were dying from influenza were the same persons that I was screening and educating about cardiovascular disease.”

As COVID-19 became more prevalent in New Orleans in March 2020, Dr. Ferdinand again noticed that the people who were dying early from COVID-19 were the same people he was treating: older persons and persons with comorbid conditions, including heart disease, hypertension, chronic kidney disease, and diabetes. This further increased his interest in vaccinations. “So, this is something that I’ve taken on as a part of my career. I think it’s important. It’s equally important as the traditional control of cardiovascular risk factors, including treating blood pressure, high cholesterol, and diabetes.”

Data from the Centers for Disease Control and Prevention shows there are clear racial/ethnic disparities in the uptake of influenza vaccination. Although no group has yet reached the Healthy People 2030 goal of a 70% vaccination rate, a report of vaccination coverage by racial/ethnic group from 2019 to 2020 (see Figure 1) shows that White, non-Hispanic people are closest to goal, at 52.8%. They are followed by other, non-Hispanic (45.9%), Black, non-Hispanic (41.2%), and Hispanic people (38.3%).

Figure 1: Flu Vaccination Coverage by Racial/Ethnic Group

Flu vaccine uptake lower in several populations of color¹



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Reference: 1. Flu vaccination coverage, United States, 2019–20 influenza season. Centers for Disease Control and Prevention. October 1, 2020. Accessed October 7, 2021. <https://www.cdc.gov/flu/fluview/coverage-1920estimates.htm>

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Dr. Ferdinand noted that these racial/ethnic groupings have no biologic or scientific basis for this variance. “They are cultural terms,” he said, “social terms. It’s how people look and appear and how they define themselves. But that doesn’t necessarily mean that we should disregard data as it relates to race because it may be a marker for help-seeking behavior, the social determinants of health, and for bias within the system. Many times, we as practicing clinicians may treat people differently and not even be aware of it. That’s what’s called implicit bias. So, we shouldn’t disregard these data but recognize that these, to a large extent, are social constructs.”

He also noted that more granularity would be helpful in showing areas where more attention should be paid to disparities. For example, he noted that Latino or Latina refers to a person with ancestry in a Spanish-speaking country, but the individual may not speak Spanish and their parents may have come from Mexico or from somewhere in the South American continent, which becomes a very broad characterization. So, when

looking at data, it may be necessary to disaggregate to obtain a clearer picture. Nonetheless, the data currently available show clear disparities in influenza vaccination uptake.

Dr. Ferdinand stated that disparities in immunization uptake are built on a platform of disparities of high-risk that would predict more hospitalization. Indeed, rates of influenza-related hospitalizations are significantly higher (68.8% per 100,000 population) for non-Hispanic Black people, who have the second worst vaccinate rates, than for non-Hispanic Whites (38.1%), who have the best vaccination rates.

Add these racial/ethnic disparities to other risk factors, such as age or other underlying disease, and patients who are not vaccinated are at even greater risk. “We often think of influenza as just a bad cold,” said Dr. Ferdinand. “Nothing could be further from the truth. You actually can have hospitalization and death related to influenza, so this disparity is more than the number. It’s a marker for a potential loss of life itself.”

Patients who have underlying cardiovascular disease—including coronary disease, heart attacks, heart failure, strokes, and hypertension—already have an increased risk of morbidity and mortality. Once they become infected with influenza, it's not just a bad cold; they have more severe infections. The American College of Cardiology has clearly demonstrated an increased risk of mortality, heart attacks, strokes, and heart failure in persons who have underlying cardiovascular disease and become infected with influenza. Data show there are more readmissions for individuals who have atherosclerotic cardiovascular disease (ASCVD) with vaccine preventable disease. Yet nearly one in three of these patients are not vaccinated. A Medical Expenditure Panel Survey of 131,881 adults aged 40 and over with ASCVD showed a decrease in vaccination rates as various socioeconomic factors increased. Although this study addressed influenza vaccination, Dr. Ferdinand noted that the same is observed with immunization for the coronavirus.

Vaccine Hesitancy and Other Causes of Disparities

Vaccine hesitancy is a term that has become well-known as related to COVID-19 vaccination, but Dr. Ferdinand noted the term predates the current pandemic. According to the World Health Organization (WHO), vaccine hesitancy is “the delay in acceptance or refusal of vaccines despite availability of vaccination services.”

“We have a healthcare system where immunization is widely available. Most insurances will pay for it. And if you don't have insurance coverage, there are many governmental programs for influenza vaccination,” said Dr. Ferdinand. “Despite the widespread vaccination availability across all populations, we see no one reaching the 70% suggested by Healthy People 2030. And we see disparities in uptake related to race/ethnicity. Further building on the platform, disparities in patients who have high-risk. So, to a

large extent, it's a failure of our healthcare delivery system. It's a failure of us as a society that we have lifesaving vaccines and they're not being taken up equally across all populations, including the most high-risk populations.”

While recognizing that this is a complex problem, Dr. Ferdinand noted that lack of trust is a key component of vaccine hesitancy. A national survey of Black and White adults in 2015 explored how dimensions of trust related to influenza vaccine behavior. In particular, the study showed a lack of trust in the pharmaceutical industry and a perception of profit-related motives, fueled by annually offering of influenza vaccine. A 2018 study of 806 Black respondents showed a distrust of the healthcare system in general, based in part on historical events (such as the Tuskegee syphilis study) as well as substantial evidence of differential treatment of Black patients by healthcare providers.

“Now, I certainly don't believe that my colleagues are inherently unfair, mean or racist,” said Dr. Ferdinand, “but when you look at electronic health registries and cohort studies, you consistently see these gaps in the application of evidence-based care and outcomes across populations, driven by a mixture of components of race, ethnicity, socioeconomic status, and education.”

This lack of trust is associated with decreased participation in preventative care, including adherence to blood pressure medications, control of blood pressure, admission for heart failure, control of diabetes, A1Cs less than 7, LDL cholesterol less than 100, and decreased vaccination rates.

“So,” Dr. Ferdinand advised, “it's not good enough to say, ‘we are all equal.’ Yes, we are. The human race is one race; 99.9% of the genetics are the same. But we need to recognize that these disparities are real, they're persistent, and they aren't acceptable. And the only way we're going to address them is by addressing them and not wishing them away.”

Best Practices

First, educating patients is key. “I will suggest to you,” said Dr. Ferdinand, “that immunization against influenza and immunization in general has been one of the greatest advances in the history of medicine.”

As we approach some of the problems related to immunization, it will be important to educate the public about the benefits and the science of immunization. “Right now, it’s hard to describe what’s true. A Facebook post, a bad tweet, something your cousin said at a party becomes equally as truthful as a large randomized clinical trial or a large cohort study looking at thousands of persons, and we need to burst that bubble so that individuals in the community at large can get a better understanding of exactly how we accumulate scientific data and how we demonstrate a benefit of an intervention.”

While studies show distrust of pharmaceutical companies and, in some cases, the healthcare system generally, some of the most trusted individuals, especially in the Black community, include healthcare providers: physicians, nurses, nurse practitioners, and pharmacists. Outside of healthcare providers, other most trusted individuals in these communities include religious leaders, pastors, and priests.

Using that trust is key to educating patients. In one study, 24% of Black patients reported, “What my healthcare provider recommends is somewhat important, 25% fairly important, or 30% extremely important.” Strong recommendations by physicians are important. Where risks are involved, with the elderly for example, be honest about risks of vaccines and make appropriate assessments.

Priority

It is critical to ensure vaccination is a primary component of care. Vaccination should be addressed in client reminders, recall systems, and standing orders.

“I think we as providers at every visit should have immunization status as part of the evaluation. You can even say part of the vital signs along with blood pressure, temperature, weight, and pulse,” stated Dr. Ferdinand, continuing that when seeing patients in the clinic, “before I talk to them about their blood pressure, their chest pain, shortness of breath, or their cholesterol LDL level, I’ll ask them, ‘Are you vaccinated? Have you got the flu shot yet? Have you been able to get your COVID-19 immunization?’ Opening that door, having that discussion is probably one of the best first steps you can take with the patient.”

Dr. Ferdinand also recommends offering an influenza vaccine at the same time other care is taking place.

He concluded, “The bottom line is to get to the patient the importance of immunization, to not have it as a side conversation, not have it as a throwaway, but to address critical issues around the person’s health and strongly recommend flu vaccine at the same encounter that you’re seeing them for other purposes and that can facilitate improved vaccination uptake.”

Language

Pay attention to the language you use with patients. Use culturally appropriate language. As Dr. Ferdinand tells his medical students, “It’s not enough to stand over a patient. You should sit down, eye level. It’s not enough to show all the long Latin words that you learned in medical school. Use plain English or English as a second language, get an interpreter, and talk to the patient about their immunization status and address their concerns.”

Focus the patient on the gist, or bottom line, of the communication by combining facts with a linking phrase, such as “So, the reason this is important is....” Use of the linking phrase aids in comprehension and recall and can improve vaccination rates.

Additionally, use presumptive language, that is, approach the patient presuming they will have a vaccine, rather than using conversational language, which makes vaccination seem like a side issue. A study of 111 vaccine discussions in pediatric care showed that use of presumptive language led to 74% vaccine uptake, while conversational language resulted in vaccination only 17% of the time (see Figure 2). Dr. Ferdinand recommended language such as “Oh, we’re going to schedule your flu vaccination next month,” or “I look here and see that you’re missing your flu vaccination. We have a clinic set up to do that and I’ll schedule for an appointment in a week or so.” He noted, “It’s still the person’s individual choice, but you’re using language which drives them to vaccination.”

Other Opportunities

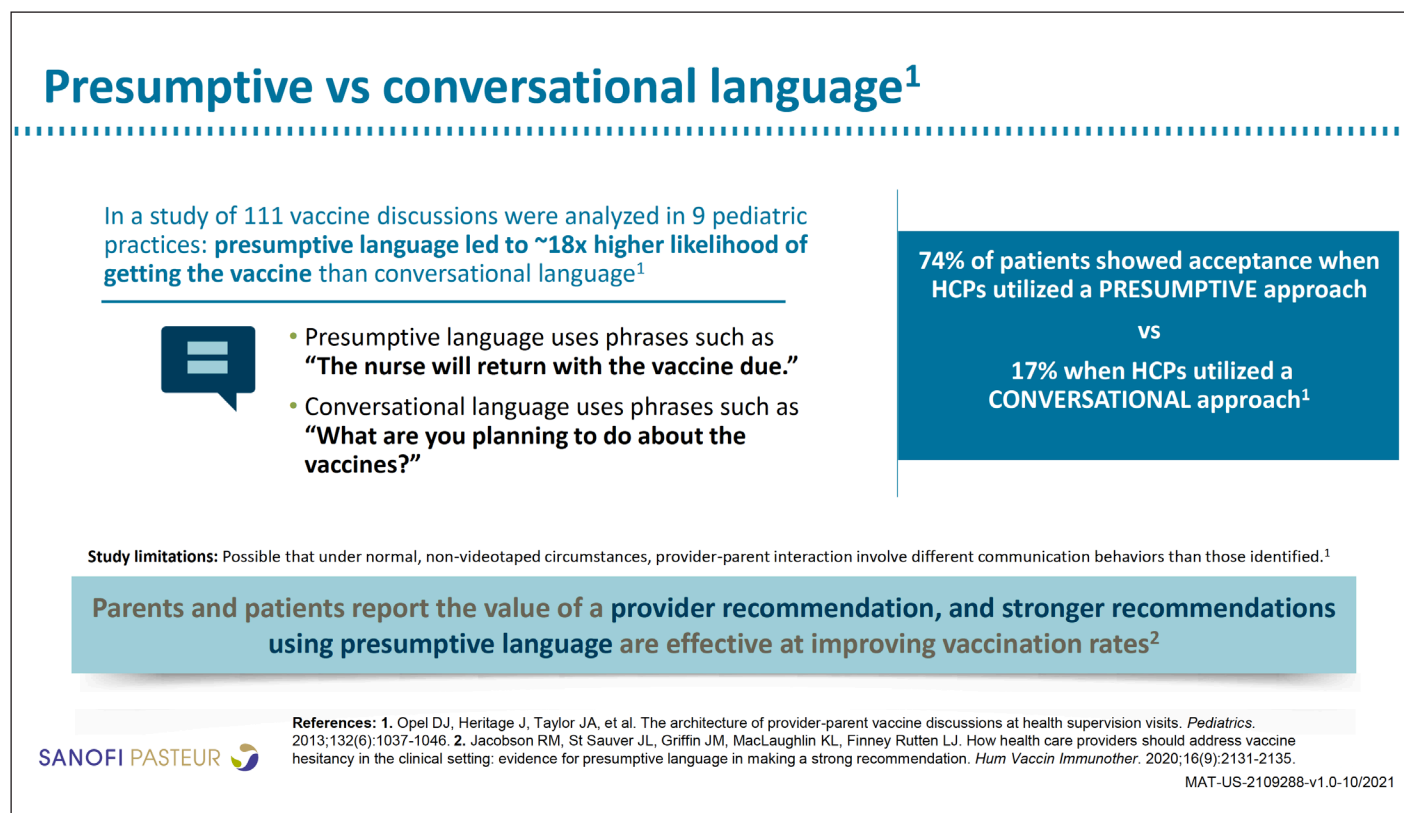
Look for ways to improve influenza vaccination rates beyond the exam room. Institutions can benefit from a chief immunization officer who is tasked with

overseeing the entire vaccination process. Some facilities that already have this process in place have found that it effectively ensures vaccinations are an important component of the delivery of health care.

Also, ensure your entire team has been vaccinated, and beware of vaccine hesitancy among staff. Patients will listen to physicians, but if there are trust issues, the patient may hear the provider “and then go out to the receptionist and say that doctor just said I should get a flu vaccine, what do you think? And if that receptionist is vaccine hesitant or an anti-vax person, it can actually disrupt the recommendation made by the provider.” Thus, said Dr. Ferdinand, “everyone who works in the healthcare system really should be vaccinated and be an advocate for vaccination.”

Finally, identify high-risk patients in emergency departments and other specialty clinics to avoid missed opportunities for vaccination.

Figure 2: Presumptive vs. Conversational Language



Looking Forward

While racial/ethnic background and comorbidities have been shown to affect influenza vaccine uptake, greater attention is now also being focused on the social determinants of health, such as education and income levels.

“The social determinants of health,” said Dr. Ferdinand, “are not just the metrics: the blood pressure, the weight, the temperature, the oxygen saturation. The social determinants of health are where people work, live, play, and pray. It’s the environment, the milieu in which the patient sits.”

He noted that some Z codes are now being developed so that sometime in the future there will be reimbursement for documenting and intervening on these social determinants. “These social determinants of health have a profound impact on how patients live and die, and at some point we’re going to have to do a little bit more in not just addressing those metrics that we measure

on each visit, but inquiring about how people live, multigenerational homes, difficulty paying for their medications, transportation problems, difficulty accessing fresh fruits and vegetables because they can have a profound effect on outcomes.”

Dr. Ferdinand also noted the need to really fight against the silo. “The cardiologist, the infectious disease agent, the diabetologist, the pediatrician, everyone should recognize the public health benefit of immunization. And we shouldn’t say, ‘Well, you know, I’m a heart specialist, I can’t deal with that’ or ‘I’m a diabetes specialist, that’s not my issue.’ We have data that patients benefit from immunization [and we must] recognize that the same patients that we treat, that I treat in cardiovascular disease, are the patients who have most complications when they do become infected with influenza. So, it makes good sense for me, for all of us as providers, as clinicians, as physicians, nurses, nurse practitioners, pharmacists, to embrace immunization.”

David Kruger, M.S.N., APN-BC, BC-ADM, is a certified nurse practitioner in diabetes with more than 35 years at Henry Ford Health System in Detroit, MI. Her role includes both clinical practice and research. She is board certified by the American Nurses Association Credentialing Center in Primary Care and the American Diabetes Association (ADA) Care and Education Specialist in Advanced Diabetes Management. She is past chair of the ADA Research Foundation and has served on ADA's Research Policy Committee. She is also past President of Health Care and Education of the ADA and has served as editor of *Diabetes Spectrum* and editor in chief of *Clinical Diabetes*. Ms. Kruger has been a principal investigator for numerous research projects and has written widely on diabetes care.

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One Prince Street
Alexandria, VA 22314-3318

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