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Multisite Integrated Health System Utilizes Proactive Community Strategies to Address Vaccine Hesitancy and Create Positive Change



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Vaccine hesitancy remains a barrier to successful COVID-19 vaccination programs across all populations. Attempts to mitigate this barrier, including mandates, have not been successful, especially in communities of color where the vaccination rates remain low. Nursing leadership, diversity, equity, and inclusion officers, and C-suite executives of 1 health system collaborated to address vaccine hesitancy through various community conversations with health care workers, non-direct caregivers, nursing students, and all populations across 4 state counties. The efforts of the health system were to improve trust in the health care system by presenting transparent dialogue with opportunities for interactive questions through presentations by health care professionals.

The contribution of nursing leadership is critical to the success of the coronavirus disease 2019 (COVID-19) vaccination programs. Strategies to address vaccine questions and concerns through education must begin in the health system with collaboration between C-suite executives, diversity, equity, and inclusion (DEI) officers, and nurse leaders to ensure all populations understand the need for vaccination and that their fears and concerns are addressed.¹ The objective of the collaboration is to help build, continue, and regain trust in the health care system.

As more and more variants of COVID-19 continue to present, vaccine programs are critical to eradicating this disease. Nurse leaders are in position to identify the barriers to vaccine hesitancy among nurses and other health care workers, and implement robust and effective educational interventions to attain greatest vaccine coverage.² Nurses must gain an understanding of the scientific evidence regarding the COVID vaccine and have any of their concerns about short- or long-term effects addressed by medical specialists.

Actions at 1 multisite integrated health system introduced a vaccine requirement for student nurses and encouragement for health care workers education ahead of the federal and state mandates. These actions were taken to address vaccine hesitancy in the nursing

school and was included health literacy and education to for every health care worker; however, nurse leaders quickly learned that the key to overcoming vaccine hesitancy included more. They needed to understand where the hesitancy originated and then to introduce proactive education strategies to ensure every health care worker, nursing student, and member of the

KEY POINTS

- **Marginalized communities continue to have the lowest COVID-19 vaccination rates and this highest number of COVID cases and complications.**
- **Nursing Leadership with the diversity, equity, and inclusion officers led the development and implementation of the Community Conversations.**
- **The Community Conversations addressed prevention and safety, speed of vaccine development, and efficacy concerns with the vaccines; the good and the bad of physiological immunity; and continuing distrust in the government and health organizations.**

community was provided with evidence-based data about the vaccine, and opportunities to ask questions to combat false information. The success of a vaccination program is contingent upon irrefutable scientific safety data combined with high rates of community partnerships, public acceptance, and population coverage.³

This paper describes the strategic efforts of how 1 health care system impacted vaccine hesitancy through intentional Community Conversations focusing on various populations across 4 counties in the state, health care workers, non-direct caregivers, and the nursing students.⁴ Post-intervention, vaccine hesitancy was diminished in the nursing school, and the vaccination rate was 100%—no loss of students.

BACKGROUND

Historically, encouraging people to take a new vaccine on a broad level has not been easy. This was especially true for the COVID-19 vaccine due to widespread mistrust of vaccine development, speed, and safety. In the early 20th century, required school vaccinations were very contentious. “Threats to burn schoolhouses, whip teachers, and punish school directors have been the outcome of the enforcing of the compulsory vaccination law.”⁵ Threats to burn schoolhouses are not seen today; but distrust of the science of vaccines and the government’s infringement on personal liberties are resounding throughout the United States.⁵

The mass inoculation of millions of American children against polio in 1955 was a triumph of science. One reason the polio vaccine had overwhelming public acceptance was that in 1955, many Americans had an especially deep respect for science. “If you had to pick a moment as the high point of respect for scientific discovery, it would have been then,” says David M. Oshinsky, a medical historian at New York University and the author of *Polio: An American Story*. “After World War II, antibiotics were rolling off the production line for the first time. People believed infectious disease was being conquered. And then this amazing vaccine is announced. People couldn’t get it fast enough.”⁶ Unfortunately, this deep trust in vaccines and the health care system is not as strong today.

Many African Americans continue to have a deep-rooted distrust of the health care system and clinical research stemming back to the Tuskegee experiment in 1932, when researchers did not treat syphilis in a group of black men to observe how the disease would progress.⁷ The Tuskegee experiment was just 1 example out of centuries worth of documented exploitation of Black Americans by physicians and researchers that has led to distrust.⁷

The International Council of Nurses (ICN) also identified obstacles that only experienced nurses could overcome⁸: one, a lack of trust and confidence in vaccines among segments of the public; two, accessing

hard-to-reach groups; three, socioeconomic factors preventing some people from accessing immunization services; and four, some jurisdictions are not enabling nurses to work autonomously and to their full scope of practice.

Along with the American Hospital Association (AHA) and the American Medical Association (AMA), the American Nurses Association (ANA) issued an open letter on December 1, 2020, urging the American people to “trust in the process to develop, distribute, and administer a safe and effective vaccine and broad willingness to get vaccinated.” This letter explained that this is the only way to truly eradicate the virus.⁹

CURRENT DATA

A July 2021 survey of almost 5,000 nurses conducted by the ANA found that 1 in 8 nurses have not been vaccinated against COVID-19, and 11% of US nurses say they will not get the COVID-19 vaccine, or they remain undecided.¹⁰

According to a Centers for Disease Control (CDC) study, 30% of hospital workers in the United States remained unvaccinated.¹¹ The odds of being fully vaccinated were lower if the surrounding community had lower vaccination coverage. Workers in non-metropolitan counties (63.3%) and in rural counties (65.1%) were also less likely to be fully vaccinated, as well as those who were in critical access hospitals (64%) or long-term acute care hospitals (68.8%).¹¹

Vaccine rates in the targeted counties impacted by the health system Community Conversations targeted 4 counties within the state (*Tables 1 and 2*).

MANY FACTORS GUIDE VACCINE ATTITUDES

Safety and Efficacy Concerns

The condensed timeline in which the vaccines were developed and received emergency use approval raised safety and efficacy concerns for some health care workers.^{12,13}

Preference for Physiological Immunity

Herd immunity can be achieved through vaccination or via previous infections, which eventually lead to natural or physiological immunity.^{14,15} Persons who believe the seriousness of COVID-19 has been exaggerated perceive the risk of vaccination to be greater than the risk of infection.¹⁶ The difference in consequences between vaccination and physiological immunity approaches to reaching herd immunity must be clearly communicated to health care workers who currently prefer physiologic immunity over vaccination. Achieving herd immunity through previous infection would take significantly longer, incurring an immense cost in health care resources, as well as lives.^{14,15,17}

Table 1. Race and Ethnicity in State

State COVID Vaccination Demographics: Race and Ethnicity					
	Race		Ethnicity		
	Age ≥15 Years	1 Vaccine Dose	Age ≥15 Years	1 Vaccine Dose	
White	68.1	70.48	Hispanic or Latino	21.5	18.0
African American	15.6	17.3	Not Hispanic or Latino	78.5	82.0
Asian	14.5	9.2			
Other	1.8	3.2			

CDC data, December 26, 2021.

Distrust in Government and Health Organizations

Media misinformation can cause public doubts about disease spread, prevention, lethality, and vaccine safety, and can promote mistrust of the government, policy-makers, health authorities, and pharmaceutical companies.^{18,19} Such misinformation calls into question authorities' integrity and undermines efforts to increase COVID-19 vaccine uptake.^{16,19}

According to ANA President Ernest Grant, PhD, RN, FAAN, some nurses cannot get the vaccine because of existing health conditions. Although 87% of nurses surveyed indicated they get information about the COVID-19 vaccine from government sources, such as the CDC and National Institutes of Health, 15% cited friends and family, and 13% said Facebook. Grant explained that a big concern among young nurses who express vaccine hesitancy is that the COVID-19 vaccine might impact reproduction. "No

study has shown that, so once we are able to point that out, these nurses tend to make the decision to go ahead and get vaccinated," Grant said. "I think it really comes down to education."¹⁰

THE INTEGRATED HEALTH SYSTEM: OUR STORY

Building Vaccine Confidence

Vaccination confidence is influenced by trust in the safety and effectiveness of vaccines, trust in health care professionals and public health and health care delivery systems, and trust in the policymakers who develop vaccination requirements.²⁰

Nurses have for a long time been instrumental in the success of immunization programs across the life cycle through key engagement activities concerned with awareness raising, education, vaccine administration, prescribing, and policy development.²¹ Armed with the success of nursing in past vaccination

Table 2. Demographic Breakdown of COVID Vaccinations

Four Counties in State Targeted for Community Conversations							
County	Population Group	White	African American	Asian	Other	Hispanic and Latino	Not Hispanic or Latino
County 1	1 vaccine dose	95.6	2.2	1.0	1.2	4.4	95.6
	Age ≥15 years	93.6	3.2	0.7	2.5	2.9	97.1
County 2	1 vaccine dose	80.8	12.7	5.4	1.1	8.2	91.8
	Age ≥15 years	78.9	15.0	3.6	2.4	8.0	92.0
County 3	1 vaccine dose	95.4	2.1	1.7	0.8	4.5	95.5
	Age ≥15 years	94.2	2.6	1.4	1.9	4.7	96.0
County 4	1 vaccine dose	95.5	2.9	0.8	0.8	4.3	95.79
	Age ≥15 years	94.3	3.0	0.7	2.0	4.0	96.0

CDC data, December 26, 2021.

Table 3. Community Conversations Agenda

Community Conversations		
Topic	Presenter	Presentation Slides
<i>Welcome and introduction</i>	DEI team members	
<i>Health system overview</i>	DEI team members	Figure 1
<i>What is COVID-19</i> - <i>Virus and variants</i>	Medical professionals	Figure 2
<i>Acknowledge history and disparities</i>	DEI team members	Figure 3
<i>Current statistics</i> - <i>Vaccine efficacy</i> - <i>Cases and mortality</i>	Medical professionals	
<i>What can we do to help prevent the spread?</i> - <i>Masking</i> - <i>Handwashing</i> - <i>Social distancing</i> - <i>Vaccination</i>	DEI team members	
<i>COVID-19 vaccine</i> - <i>Vaccine safety</i> - <i>Vaccine options</i>	Medical professionals	
<i>Additional discussion topics</i> - <i>Pregnancy and lactation</i>	Chief medical officer and other medical professionals	
<i>Questions</i> - <i>Attendees encouraged to share their concerns and personal experiences</i>	DEI team members	

programs, the health system moved forward with an aggressive education community outreach program (Table 3) led by nursing to reach populations, healthcare workers, and nursing students.

When the health system DEI officers approached the C-suite executives, they outlined their goal of addressing vaccine hesitancy by going into the communities and presenting transparent dialog to regain trust in the health care system.

Round 1, COVID-19 Communication Conversation, started in December 2020 to preemptively support education, questions, disparities, testing, and vaccine options.

Round 2, Vax to Normal, started in August 2021 to address surge, variants, continued hesitancy, mandate, and various clinical concerns (fertility, lactation, pregnancy, etc.).

Guidelines were specific that the message must be consistent, evidence-based data must be constantly updated, and presentations must be by medical professionals. The Community Conversations that were presented in-person and through Internet meetings

across 4 state counties began in December 2020 and continued weekly until mid-April 2021. The total impact was greater than 241,000 people. All nationalities were included, and interpreters were part of the presentations whenever necessary.

Pregnancy and Lactation

Content and interactive discussion presented by the chief medical officer of the obstetrics/gynecology (OB/GYN) department.

Vaccinations: The CDC strongly recommends that all pregnant people are fully vaccinated against COVID-19. Vaccination of pregnant people also serves to build antibodies that may protect their baby from COVID-19 infection. In ongoing monitoring and follow-up with pregnant people, the CDC found no increase in rates of miscarriage or adverse pregnancy effects.

Lactating concerns: COVID-19 vaccines should be offered to lactating individuals same as non-lactating individuals. Breastfeeding people who have received mRNA COVID-19 vaccines have antibodies in their breastmilk, which could help protect their babies.

COVID-19 vaccines do not cause infection, including in pregnant people or their babies.

Planning a pregnancy: CDC comments: You can receive any authorized COVID-19 vaccine because there is no evidence that COVID-19 vaccination causes a loss of fertility or causes fertility problems in either males or females. There is no evidence that antibodies made following COVID-19 vaccination or in vaccine ingredients cause any problems with becoming pregnant now or in the future.

Preventing the Spread

DEI officers discussed this section and facilitated the interactive discussion at the end of the presentation.

People have questions about how COVID-19 is spread. Why get the COVID-19 vaccine?

School-age children can get COVID-19 from you if you are not vaccinated. We all want to get back to places of worship and back to work. If you are not vaccinated, you can spread COVID-19 to others, even those who are vaccinated can experience break through infections. Getting the COVID-10 vaccine protects the community and can prevent death and complications in others.

Where should I go for the COVID-19 vaccine?

Websites: <https://www.vaccines.gov/>
<https://www.cdc.gov/>
 Local pharmacies

Can I still spread COVID even if I don't have any symptoms?

Some people have spread COVID without any symptoms. Other people have spread COVID and

then developed symptoms later. Therefore, it is important for everyone to take care to prevent the spread of COVID-19.

- Wear a mask
- Practice social distancing (at least 6 feet)
- Avoid crowds
- Avoid poorly ventilated indoor spaces
- Stay home when you are sick
- Wash your hands often
- Get a COVID-19 test when necessary (keep at home kits when possible or seek PCR test)
- Get vaccinated (add boosters?)

Cleaning and hygiene: Clean surfaces once a day, prioritizing high-touch surfaces. Ensure adequate supplies of soap (at sinks with water), hand sanitizers (at least 60% alcohol), and hand drying materials (paper towels) are available and placed in prominent areas.

Face coverings: Face coverings should be tight fitting to cover nose and mouth, and be worn indoors with large crowds or a high number of children present (regardless of vaccine status). Face coverings are especially important with those individuals who are not fully vaccinated in indoor and outdoor settings. Provide face coverings (disposable) to those who do not have them.

Social distancing and minimizing exposure: Acrylic barriers, spaced seating, and floor markers are ways to emphasize social distancing. Signs that say, Caution While Eating, Avoid Physical Contact, and designated Entry and Exit points are suggested. Another suggestion is to stagger entry and exit times of individuals.

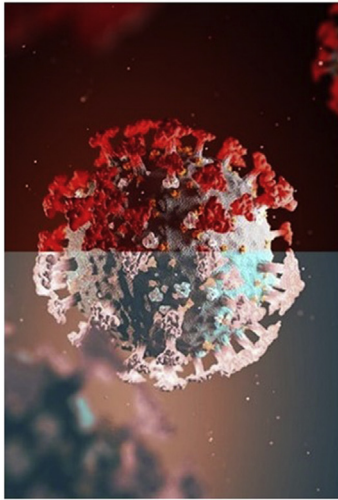
Combating misinformation: Make information about COVID-19 prevention and mitigation available (videos, webinars, printed materials). Emphasize the importance of maintaining physical distancing and proper hand hygiene.

An Integrated Health System Committed to Caring for the Community



Figure 1. The Integrated Health System

COVID-19 Variant



- Currently, seven variants being monitored in US, two are Variants of Concern (VOC) – **Delta and Omicron**
- Omicron variant- is nearly 2x more contagious and spreads more quickly than the Delta variant
- 62.4% of isolates were omicron variant in New York State, the rest likely being delta
- 73% of the total cases in the United States were omicron
- Studies suggest current authorized vaccines work on the circulating variants along with boosters

Figure 2. What Is a COVID-19 Variant?

Interactive Session

This is a discussion opportunity for attendees to ask questions or to share stories of their own experiences with COVID-19. This session led to people sharing their testimonials, past and present. The interactive session provided help for others to make informed decisions about their own health care. In some cases, the interactive session changed people’s minds and gave more clarity.

LESSONS LEARNED

We believe we impacted vaccine hesitancy in a positive way. These are some thoughts on how other organizations might approach vaccine hesitancy throughout the community:

1. Take time to educate the team and have the health care experts available to answer questions such as

infection prevention physicians and OB/GYNs. Share data, including those unvaccinated and hospitalized, those vaccinated and hospitalized, and COVID presence in the community.

2. Take time to prepare and provide handouts and resources.
3. Interact with community organizations to address specific issues in that population.
4. Provide enough interactive time to have people share vaccine experiences and stories of why it is important, how difficult it is with losses due to COVID, feelings of those who were infected, and those who are hesitant or have received the vaccine.
5. Follow up with attendees after the program to see whether they are vaccinated, plan to be vaccinated, or are still undecided.
6. Offer vaccination clinics close to where people work.

Years of Research are Behind the Vaccine

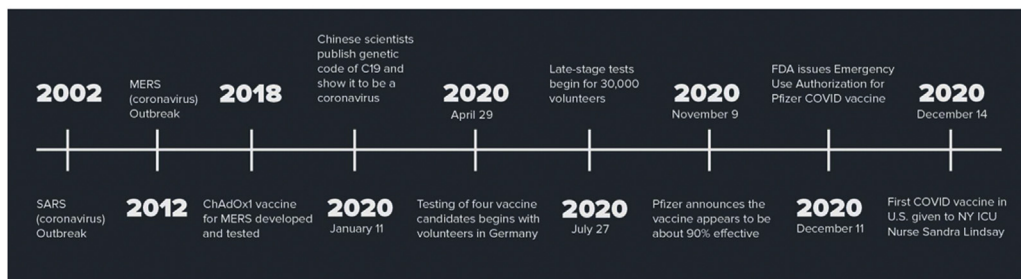


Figure 3. History of the COVID-19 Vaccine

7. Discuss any other ideas to stimulate positive outcomes and motivate people to get the vaccination.
8. Crucially, provide this and other health care information in the person's preferred/native language, including various verbal and written information, American Sign Language, closed caption, etc.

DISCUSSION

When the nursing school vaccination mandate was put in place in early 2021, only 37% of students were vaccinated. Simply delivering information was inadequate. Confidence among nurses and nursing students was heightened through discussion, eliciting their concerns, and involving them in vaccination recommendations.

Nurses have a professional obligation to protect those they serve from harm, and that requires that they be alert to what is now ubiquitous disinformation, including both the misguided recommendations of those who have an affinity for “alternative facts,” and the malicious use of information created by what is now referred to as trolls—a problem that has become especially pervasive online and in social media.²²

A consensus study from the National Academy of Medicine directed the committee to consider newly emerging evidence related to the COVID-19 global pandemic and include recommendations regarding the role of nurses in responding to the crisis created by a pandemic. The committee will consider: “The role of nurses in improving the health of individuals, families, and communities by addressing social determinants of health and providing effective, efficient, equitable and accessible care for across the care continuum, as well as identifying the system facilitators and barrier to achieving this goal.”²³

CONCLUSION

Nurses are responsible for the people they serve. According to the American Nurses Association Code of Ethics for Nurses,²⁴ the nurse's primary commitment is to the patient, whether an individual, family, group, community, or population. When a nurse refuses to accept the COVID-19 vaccine, but continues to work at bedside, the patient is put at risk.

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