Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.
“Somebody Like Me”: Understanding COVID-19 Vaccine Hesitancy among Staff in Skilled Nursing Facilities

Jill Harrison PhD,* Sarah Berry MD, Vince Mor PhD, David Gifford MD, MPH

Objective: The vaccination of skilled nursing facility (SNF) staff is a critical component in the battle against COVID-19. Together, residents and staff constitute the single most vulnerable population in the pandemic. The health of these workers is completely entangled with the health of those they care for. Vaccination of SNF staff is key to increasing uptake of the vaccine, reducing health disparities, and reopening SNFs to visitors. Yet, as the vaccine rollout begins, some SNF staff are declining to be vaccinated. The purpose of this article is to describe reasons for COVID-19 vaccine hesitancy reported by staff of skilled nursing facilities and understand factors that could potentially reduce hesitancy.

Design: Five virtual focus groups were conducted with staff of SNFs as part of a larger project to improve vaccine uptake.

Setting and Participants: Focus groups with 58 staff members were conducted virtually using Zoom.

Measures: Focus groups sought to elicit concerns, perspectives, and experiences related to COVID-19 testing and vaccination.

Results: Our findings indicate that some SNF staff are hesitant to receive the COVID-19 vaccine. Reasons for this hesitancy include beliefs that the vaccine has been developed too fast and without sufficient testing; personal fears about pre-existing medical conditions, and more general distrust of the government.

Conclusions and Implications: SNF staff indicate that seeing people like themselves receive the vaccination is more important than seeing public figures. We discuss the vaccination effort as a social enterprise and the need to develop long-term care provider-academic-community partnerships in response to COVID-19 and in expectation of future pandemics.

Coronavirus (COVID-19) has disproportionately affected skilled nursing facility (SNF) residents and staff in the United States, with the highest rates of infection and mortality in both groups. Since the pandemic began, approximately 40% of all US coronavirus fatalities are in SNFs or similar long-term care facilities. One month before COVID-19 vaccine distribution began in the United States, an estimated 100,000 residents and staff at long-term care facilities had died with the virus, likely an undercount. Despite efforts to control virus spread by lockdown facilities and restricting access to outside visitors, COVID-19 outbreaks in SNFs persist, largely due to unintentional asymptomatic transmission from exposed SNF staff who live in the larger community.

Vaccination of these workers is critical for several reasons. First, the vaccine protects staff personally and against compounding existing health disparities. SNF staff are often disadvantaged. Nursing assistants comprise 53% of the SNF workforce. More than 90% are women, 49% black or Latino, 44% live in low-income households, and 36% are uninsured or on public health care. Thus, nursing assistants are among the most vulnerable groups at risk of contracting COVID-19 in the community and among the least likely to have access to...
community-testing due to social and economic factors stemming from long-standing structural racism. In addition, given their role as front-line caregivers in SNFs, nursing assistants are at increased risk of contracting COVID-19 through work, with a staggering mortality (2 deaths/1000 workers). Second, vaccination is necessary to protect staff collectively as a long-term care workforce with the health and capacity to care for residents. Staff shortages impact the health, safety, and quality of life of residents and workers. Shortages during the pandemic have disproportionately affected nursing homes caring for the most disadvantaged populations with a higher percentage of revenue from Medicaid. Third, staff must be vaccinated in order to protect SNF residents to whom they provide intimate care. This is especially problematic because as many as 93% of infected staff are asymptomatic at the time of testing and at risk for spreading the virus to other residents. Finally, vaccination of staff is key to reopening of SNFs to visitors, a necessary step in addressing residents’ loneliness and isolation.

These factors point to the intersecting and complex social ecosystem in which protecting residents and staff from the virus is intertwined with community-level factors. The key point is that SNF workers provide care to society’s most vulnerable citizens for low wages, under hazardous conditions, and at the same time, are among the most vulnerable groups at risk of contracting COVID-19 through their work and residence in at-risk communities.

In December 2020, 2 candidate vaccines were approved by the FDA for Emergency Use Authorization in the United States. Because of the tremendous disease burden and risk of COVID-19 in long-term care, initial recommendations by the CDC for vaccine distribution specified SNF residents and staff in the first priority group to receive the vaccine in a phased allocation process. However, as plans for the vaccine rollout began, a survey conducted by the National Association of Health Care Assistants (a major professional organization of direct care workers) confirmed that most SNF staff did not plan to be vaccinated for SARS-CoV-2. Other national data indicate levels of vaccine hesitancy among the general adult population.

Using data collected as part of a larger study of a multicomponent intervention to improve trust and vaccination uptake in SNFs, the purpose of this article is to describe reasons for vaccine hesitancy reported by staff, and understand factors that could potentially reduce hesitancy. We review findings from 5 focus groups conducted with staff of SNFs (n = 58) in conjunction with the first wave of the COVID-19 vaccine rollout in US long-term care settings.

Methods

Participant Recruitment

This study, including the process for recruiting participants, received approval from Advarra, an Institutional Review Board. To ensure diversity in the race and ethnic composition of focus group participants, the pool of candidate SNFs was selected from 12 national corporations based on meeting a minimum threshold of 15% minority residents. Corporate leadership of the candidate SNFs were first contacted by e-mail, invited to participate in the study, and asked to provide contact information for facility leaders that could assist with recruitment of local participants to focus groups. Follow-up e-mails and phone calls were made to facility points of contact to answer questions about the study. For those SNFs willing to participate, the study was further explained, a contact person identified, and a flyer requesting staff participation in focus groups was distributed. The flyer included directions about how to register for a focus group by contacting a dedicated member of the research team by phone or e-mail. On contact, participants were scheduled to participate in one of the 5 groups and provided Zoom call-in information. Individual participants elected to join the meeting by phone or computer at the scheduled date and time.

Data Collection

Group interviews were conducted virtually using Zoom technology, scheduled for 90 minutes, audio recorded, and transcribed for qualitative data analysis. Virtual focus groups provide a no-contact method to conduct group interviews without risk of virus transmission and allow for staff from multiple facilities across several geographic regions to participate in the same group and compare experiences.

Five focus groups were conducted virtually using Zoom between December 17 and 23, 2020. This time period corresponds with FDA issuance of 2 Emergency Use Authorizations for COVID-19 vaccine distribution in the United States for the Pfizer-BioNTech and Moderna vaccines on December 11, 2020, and December 18, 2020, respectively. Initial vaccine distribution efforts to SNFs, the majority of which were part of a federal program that uses pharmacy chains, to vaccinate residents and staff through on-site day-long facility clinics began in the week of December 21, 2020.

Fifty-eight staff members participated across the 5 groups (see Table 1), and 72% of participants completed a demographic e-survey that was posted in the Zoom chat box and e-mailed after the group. Of the 42 participants who completed the survey, 71% identified as white, 24% black, and 5% preferred not to answer. Overall, 97% of participants were female, 69% worked in SNFs for 5 or more years, and 67% reported job categories in nursing [registered nurse (RN), licensed practical nurse (LPN), and certified nursing assistant (CNA)].

| Table 1 Characteristics of SNF Staff Focus Group Participants |
|--------------------------------------------------------------|
| Characteristics                                             | Frequency | % |
| Total participated                                          | 58        | 100 |
| Completed demographic e-survey                              | 42        | 72.4 |
| Ethnicity                                                  |           |    |
| Hispanic or Latino                                         | 0         | 0.0 |
| Not Hispanic or Latino                                     | 40        | 95.2 |
| Other                                                      | 0         | 0.0 |
| Prefer not to answer                                       | 2         | 4.8 |
| Race                                                       |           |    |
| White                                                      | 30        | 71.4 |
| Black                                                      | 10        | 23.8 |
| Asian or Asian American                                    | 0         | 0.0 |
| Pacific Islander                                           | 0         | 0.0 |
| Native American                                            | 0         | 0.0 |
| Other                                                      | 0         | 0.0 |
| Prefer not to answer                                       | 2         | 4.7 |
| Gender                                                     |           |    |
| Male                                                       | 1         | 2.4 |
| Female                                                     | 41        | 97.6 |
| Time worked in nursing home                                |           |    |
| <6 mo                                                      | 1         | 2.4 |
| >6 to <12 mo                                               | 0         | 0.0 |
| 1-2 y                                                      | 10        | 23.8 |
| 3-5 y                                                      | 2         | 4.8 |
| >5 y                                                       | 29        | 69.1 |
| Job category                                               |           |    |
| RN                                                         | 13        | 30.9 |
| LPN                                                        | 5         | 11.9 |
| CNA/HHA                                                    | 10        | 23.8 |
| Social worker                                              | 5         | 11.9 |
| Physical/occupational therapist                            | 1         | 2.4 |
| Dietician                                                  | 1         | 2.4 |
| Administrator                                              | 2         | 4.8 |
| Other                                                      | 5         | 11.9 |
| CNA, certified nursing assistant; LPN, licensed practical nurse; RN, registered nurse. |
| Other category includes Admission Director, Development Coordinator, Recreation Therapist and Director of Nursing. |
Focus groups with staff members sought to elicit concerns, perspectives, and experiences related to COVID-19 testing and vaccination with a focus on barriers and facilitators. Reasons for vaccine hesitancy and factors to improve vaccine uptake were examined.

Analysis

As part of the interview protocol, a moderator trained in health services research asked participants how likely they would be to get the COVID-19 vaccine as soon as it is available. If participants would not get the vaccine right away, they were asked to describe the main reason for that decision. Finally, participants were asked what, if anything, could change their mind about getting the vaccine right away.

Focus group data were analyzed using a phenomenological approach that used open-ended questions to understand staff experiences of COVID-19 testing and vaccination. A phenomenological approach was selected because it recognizes the individuality of lived experiences in people who may interpret the same experience differently. For example, although focus group participants were all staff members of SNFs and likely shared some common experiences, the phenomenological approach was intended to maximize the individual voices of staff and potential for personal, social, facility, and geographic variation in experiences working in SNFs. Transcript coding was done by hand using 2 coders making notations and bracketing themes directly on the transcripts using an iterative approach of reducing and interpreting initial themes. A process of discussion in any discrepancies among coders and peer review followed to ensure inter-rater reliability until consensus was achieved.

Findings

The theme of hesitancy to be vaccinated was organized into the following subthemes: general concerns and personal concerns about vaccine safety and effectiveness, lack of trust in the vaccine effort, misinformation about the vaccine, and increasing vaccine uptake. Next, we present the findings with illustrative quotes.

General concerns about safety and effectiveness

Across all focus groups, among staff who said that they would not get the vaccine right away, general concerns about the safety and effectiveness of the vaccine were common. These vaccine-related fears were attributed to the speed of vaccine development and concerns about long-term adverse effects of receiving the vaccine. For example:

There’s a real fear from people in deciding whether to either accept the vaccine or not. Operation Warp Speed has been very fast for a vaccine.

I guess this is more of like an unknown or a fear of it just being so new and me not trusting it just yet because it’s so new. I just feel like it was really rushed. I feel like I need more time to make myself confident in it.

It’s something new. And a lot of people don’t want to try it because they’re afraid of what the outcome is going to be.

Related to the speed of vaccine development were concerns about lack of knowledge regarding the long-term side effects of being vaccinated and how long immunity protection from the vaccine would last. For example:

We don’t know the long-term effects because we don’t have long-term results yet.

What I’ve heard most from team members who are not getting the vaccine is just the unknown of the side effects—that there’s not enough years of monitoring.

Personal concerns about safety and effectiveness

In addition to concerns about the general safety and effectiveness of the vaccine, staff expressed concerns with how the vaccine would interact with their personal underlying medical conditions and a lack of understanding about the vaccine containing live or attenuated virus. For example:

The thing I think about most is how it’s going to affect my body.

Pregnant women are still pretty wary.

I have asthma, and if I take the vaccination then I’m afraid of what it might do to me because I have an underlying condition. And then if I don’t take it, I might need to take it. So, I don’t know which way to go because I don’t know how it will affect my body. Maybe I get it on my own and then my body will fight it off. Maybe the vaccine will introduce the virus into my body. So, it’s hard to say which way to go.

Concerns about the lack of long-term research on people living with medical conditions also influenced staff decisions to delay vaccination.

Until we have studies and people have the vaccination and they do it on different people with all these underlying conditions and stuff and they do well, then maybe other people would try it.

If we had more studies with longer results. Right now, it’s like a “Now! Now!” thing, and we really just don’t know what the effects of it are. But if we try like with the flu and stuff—it’s been around for a long time, they’ve made it new and old over time—and improve the condition so a lot of people wouldn’t doubt it or whatever. But this right here is new, so I don’t know what to say about it right now. Right now, I won’t take it until I see what it will do to other people, especially with people with underlying conditions.

Some staff described the process of making the decision to be vaccinated as one of weighing the risk of potential unknowns associated with receiving the vaccine as being greater than battling the virus itself. Health risks associated with COVID-19 were underrecognized. For example:

I have heard from a couple staff members who have had the coronavirus and they had like zero to no symptoms with it, or very, very minor things. So to them, it’s just not worth it, because they felt like it wasn’t that bad for them. So, whatever the possible side effects could be of the vaccine, they don’t outweigh the risk of what they had when they had the virus. I’m healthy enough where if I get sick or something from it, I think I’d be fine.

Staff expressed concerns about the personal risk they faced if they were to be vaccinated and develop symptoms or side effects and require uncompensated time off work resulting in a loss of income. For example:
If you get a vaccination and you have symptoms or get sick, then you have to think about “What will happen to me and my future and my family?” and all of that. So that’s just a thing that people have to think about because it’s a big thing in economics now because a lot of people are going through hardships and they don’t need any more hardships.

**Lack of trust in the vaccine effort**

Reasons for vaccine hesitancy were also associated with a lack of trust in government and the vaccination effort more generally. For example:

> I think it depends on your political affiliation and some people don’t get vaccinations of any kind. They aren’t going to get this one.

For people of color, there’s rightful skepticism of things that are pushed by government and people in power who are generally white men. So, there’s rightful skepticism so I think that’s where there’s a lot of this.

> I just think right now across all groups there might be less trust in government and that has a lot to do with the political landscape and what’s been going on. So, I think there’s just a lot of mistrust and there’s a lot of misinformation out there and it’s hard for some people to evaluate the sources of where they get their information from.

**Misinformation about the vaccine**

This lack of trust was associated with a receptiveness to misinformation about the vaccine and also compounded by it. For example:

> With everything happening in the world, some people think the vaccine is a way to control the population.

Some people think they are implanting a microchip.

> I’ve heard it will give you the virus. I don’t know if there is a live virus in it or not. Is there?

> I’ve heard it will make you infertile. A lot of young staff are of child-bearing age and that is a real fear.

When asked to describe the communication channels most commonly used to circulate skepticism and misinformation about the vaccine, participants across all groups identified social media platforms.

> I see it on Facebook, Twitter, Reddit, YouTube, Instagram.

I feel like social media has really hurt our efforts in this. I’ve personally had to delete a lot of social media of my phone because I can’t handle the stupidity of things that I hear… And I think that that’s where so many people get their news and their information—from everywhere from TikTok to Facebook to whatever. And it’s spreading such ridiculous things about being implanted with a chip that the government’s going to follow you. And I’m like, “Well, if you don’t want the government to follow you, you better throw away your cell phone.” Just the lies and the inaccurate information that has been spread through those channels is amazing. I wish we could shut it all down right now [laughs] and get correct information into people’s hands.

When asked about the communication channels to address myths and misinformation about the vaccine, the same social media platforms were identified.

> I think obviously social media is one of our problems. But, I think that would also be a good way to reach people.

**Increasing vaccine uptake**

Hesitant staff described a willingness to be vaccinated to improve the lives of the nursing home residents that they care for.

> I am a medication aide at a nursing home. If it was just up to me, I wouldn’t get the vaccine. But knowing I want to keep the residents safe, I want to keep my kids safe, and essentially, I do want the residents to get to go back to whatever normal is. Because, God willing, I will have many more years left on this earth. The people that I take care of—is this the end of their life, and it’s not living their best life.

When asked what, if anything, would increase confidence in the vaccine, staff described the need for easy-to-understand information from trusted sources, including local community leaders, and people like themselves.

> I think it just has to be concise and understandable. If you’re not used to looking through trials or you don’t understand reading an entire vaccine answer or anything like that…I think it has to come from trusted sources and be concise and very simple. One of the things I’ve noticed in our community is that some of the more fundamental religious groups are probably more against the vaccine than some other religious groups. And I think in our town, the mayor has done a good job of bringing a lot of churches into discussions about mask wearing and different things like that. But maybe even from some of the religious perspectives of some groups—doing some education through clergy might be helpful for some people as well.

For me personally, it doesn’t matter to see famous people get it, but I applaud their efforts to do that on live TV and such if it does help others in the world feel more comfortable.

> I really don’t care who’s famous and who’s getting it, it’s just going to take time for me to become comfortable with it. Whether it’s celebrities or public officials, local community leaders can play a big part. That could play a big role, community leaders, pastors, they might be able to say hey I know these people first hand and I can influence them on a local level to get the vaccine.

One of our local leaders was on the news because she got vaccinated. She is black. But, she is black and young. I want to see someone black and old get it. Someone like me.

**Limitations**

This study has several limitations. First, the sample size (n = 58) is small relative to the 4.5 million health care workers in US SNFs. Although efforts to ensure diversity among participants were made in the recruitment of candidate SNFs, only 23.8% of participants who completed a demographics e-survey identified as black and none identified as Latino. The black staff members identified as female and 9 of the 10 their job category as registered nurses, certified nursing assistants, or health care assistants, which is consistent with data on the workforce composition. Finally, not all invited staff members participated in our project. It is likely that the perspective of staff members who did not participate are different from those who were interviewed.

**Conclusions and Implications**

The vaccination of SNF staff is a critical component in the battle against COVID-19. Together, residents and staff constitute the single most vulnerable population in the pandemic. The vulnerability of staff...
is particularly problematic in COVID-19 control, because unlike the SNF residents, they move freely between the facility and the larger community. The health of these workers is completely entangled with the health of those they care for.

Yet, research has shown that SNF workers, and particularly those from the racial and ethnic minority groups that comprise the SNF workforce, are hesitant to receive the vaccine. This is consistent with historical differences in rates of influenza vaccination among black and Latinx populations relative to non-Hispanic whites. This qualitative study explores some of the reasons for this hesitancy. Among those reasons are the belief that the vaccine has been developed too fast and without sufficient testing, personal fears about pre-existing medical conditions, and more general distrust of the government. Recent findings suggest that despite initial vaccine hesitancy, that SNF staff are willing to consider receiving the vaccine in the future. Reports from pharmacies distributing the vaccine suggest that staff who declined the vaccine initially are accepting the vaccine on the second approach after seeing peers receive the vaccine during the first immunization clinic without issue. Vaccine uptake is a social enterprise. Our findings indicate that staff prefer to see local community members and people like themselves be vaccinated to improve their confidence about its safety and effectiveness over public figures. Given the priority allocation of the vaccine to long-term care staff before community members, this can be challenging to do. However, even if community members are not vaccinated in sync with staff, engaging them in early conversations may be helpful to reducing hesitancy. This is congruent with a growing body of literature about the need to partner with community members in implementation of public health initiatives and in building trust with between minority and scientific communities. Although COVID-19 is undoubtedly a global health crisis, efforts to mitigate it with education and information are increasingly local. Response to staff members’ personal concerns about safety and effectiveness or the lack of trust in vaccine can be addressed locally by facility, community, and opinion leaders who have a stake in protecting staff and residents by ensuring high levels of vaccine adoption among both groups. Multicomponent interventions designed to decrease vaccine hesitancy among SNF staff require strategic partnerships and new competencies in stakeholder engagement. Public health needs to refocus efforts on spreading information on social media platforms using a heterogeneous group of messengers who are like the target audience. Rapid response to misinformation will also be key to address vaccine hesitancy. There is an urgent need to develop provider-academic-community partnerships in response to COVID-19 and in expectation of future pandemics. These critical partnerships not only protect against disruption and fragmentation in the ability to conduct research in SNFs, but serve as a key element in the reducing vaccine hesitancy.

References

1. Abbasi J. “Abandoned” nursing homes continue to face critical staff and staff shortages as COVID-19 toll has mounted. JAMA 2020;324:123–125.
2. Chidambaram P, Garfield R, Neuman T. COVID-19 has claimed the lives of 100,000 long-term care residents and staff. Available at: https://www.kff.org/policy-watch/covid-19-has-claimed-the-lives-of-100000-long-term-care-residents-and-staff/; Accessed January 20, 2021.
3. Centers for Medicare & Medicaid Services. Guidance for infection control and prevention of coronavirus disease 2019 (COVID-19) in nursing homes. Available at: https://www.cms.gov/files/document/3-13-2020-nursing-home-guidance-covid-19.pdf; Accessed January 5, 2021.
4. Arons M, Hatfield K, Reddy S, et al. Presymptomatic SARS-CoV-2 infections and transmission in a skilled nursing facility. N Engl J Med 2020;382:2081–2090.
5. Harrison J, Baier R. An epidemic within a pandemic (and vice versa). Academy Health. Available at: https://academyhealth.org/blog/2020-05/epidemic-within-pandemic-and-vice-versa.; Accessed May 20, 2020.
6. True S, Cubanski J, Garfield R, et al. COVID-19 and workers at risk: Examining the long-term care workforce. Available at: https://www.kff.org/coronavirus-covid-19/issue-brief/covid-19-and-workers-at-risk-examining-the-long-term-care-workforce/; Accessed December 20, 2020.
7. Shipee TP, Akosionu O, Ng W, et al. COVID-19 pandemic: Exacerbating racial/ethnic disparities in long-term services and supports. J Aging Soc Policy 2020; 32:323–331.
8. Gebelof R, Ivory D, Richtel M, et al. The striking racial divide in how COVID-19 has hit nursing homes. Available at: https://www.nytimes.com/article/coronavirus-nursing-homes-racial-disparity.html; Accessed January 5, 2021.
9. McGarry B, Porter L, Grabowski D. Nursing home workers now have the most dangerous jobs in America. They deserve better. Available at: https://www.washingtonpost.com/opinions/2020/07/28/nursing-home-workers-now-have-most-dangerous-jobs-america-they-deserve-better/; Accessed January 5, 2021.
10. McGarry B, Grabowski D, Barnett M. Severe staffing and personal protective equipment shortages faced by nursing homes during the COVID-19 pandemic. Health Aff (Millwood) 2020;39:1812–1821.
11. Lennon N, Bhattacharyya R, Mina M, et al. Comparison of viral levels in individuals with or without symptoms at time of COVID-19 testing among 32,480 residents and staff of nursing homes and assisted living facilities in Massachusetts. Preprint. Posted online July 26, 2020. medRxiv. 2020; https://doi.org/10.1101/2020.07.20.20157797.
12. The National Institute for Health Care Management (NIHCM) Foundation. The challenges of aging during COVID-19: Long-term care, vaccination and isolation. Available at: https://nihcm.org/publications/the-challenges-of-aging-during-covid-19-long-term-care-vaccination-and-isolation/; Accessed January 15, 2021.
13. Grabowski D, Koneztka T, Morr V. We can’t protect nursing homes from COVID-19 without protecting everyone. Available at: https://www.washingtonpost.com/confirmations/2020/03/30/91155f1f-df4c-11ea-848c-f9a536e33755/?utm_term=.095d1e48998c; Accessed January 5, 2021.
14. Shi S, Bakaev I, Chen H, et al. Risk factors, presentation, and course of coronavirus disease 2019 in a large, academic long-term care facility. J Am Med Dir Assoc 2020;21:1178–1183.
15. Chen M, Chevalier J, Long E. Nursing home staff networks and COVID-19. Proc Natl Acad Sci U S A 2021;118:e2015455118.
16. US Food and Drug Administration. FDA takes additional action in fight against COVID-19 by issuing emergency use authorization for second COVID-19 vaccine. Available at: https://www.fda.gov/news-events/press-announcements/fda-takes-additional-action-fight-against-covid-19-issuing-emergency-use-authorization-second-covid; Accessed January 14, 2021.
17. Flynn M. “If there’s no trust, there’ll be more hesitancy”: Nursing homes must overcome staff skepticism of COVID vaccine. Available at: https://skillednursingnews.com/2020/12/if-there’s-no-trust-there’ll-be-more-hesitancy-nursing-homes-must-overcome-staff-skepticism-of-covid-vaccine/; Accessed December 2, 2020.
18. Gharpure R, Guo A, Bishnoi CK, et al. Early COVID-19 first-dose vaccination coverage among residents and staff members of skilled nursing facilities participating in the Pharmacy Partnership for Long-Term Care Program—United States December 2020-January 2021. MMWR Morb Mortal Sep 2021;70:178–182.
19. Kreps S, Prasad S, Brownstein JS, et al. Factors associated with US adults’ likelihood of accepting COVID-19 vaccination. JAMA Netw Open 2020;3:e2010994.
20. Van Manen M. Research Lived Experience: Human Science for an Action Sensitive Pedagogy. New York: University of New York Press; 1990.
21. Bradbury-Jones C, Sambrook S, Irvine F. The phenomenological focus group: An oxymoron? J Adv Nurs 2005;52:673–677.
22. Langer Research Associates, COVID collaborative survey: Coronavirus vaccination hesitancy in the black and Latinx communities. Available at: https://www.covidcollaborativeus.com/content/vaccine-treatments/coronavirus-vaccine-hesitancy-in-black-and-latinx-communities/; Accessed January 5, 2021.
23. Unroe K, Evans R, Weaver L, et al. Willingness of long-term care staff to receive a COVID-19 vaccine: A single state survey. J Am Geriatr Soc 2021;69:593–599.
24. Daugherty J, Blake S, Grosholz J, et al. Influenza vaccination rates and beliefs about vaccination among nursing home employees. Am J Infect Control 2015;43:100–106.
25. KFF. January 14 web event: A shot in the arm for long-term care facilities? Early lessons from the COVID-19 vaccine rollout to high priority populations. Available at: https://www.kff.org/medication/event/january-14-web-event-a-shot-in-the-arm-for-long-term-care-facilities-early-lessons-from-the-covid-19-vaccine-rollout-to-high-priority-populations/; Accessed 15, 2021.
26. Irons M. Following long tradition, black clergy take the lead in coronavirus pandemic. Available at: https://www.bostonglobe.com/2021/01/17/metro/people-will-feel-more-comfortable-with-getting-vaccinations-if-we-do-it/; Accessed January 18, 2021.
27. Anderson L, Adeney K, Shinn C, et al. Community coalition-driven interventions to reduce health disparities among racial and ethnic minorities in a simulation. Cochran J 2020;41:CD009995.
28. Tai DS, Shah A, Doubeni CA, et al. The disproportionate impact of COVID-19 on racial and ethnic minorities in the United States. Clin Infect Dis 2021;72:703–706.