

Spotlight Article

Geographic Differences in Vaccine Hesitancy Among Older Adults

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Older adults, aged 65 and over, now constitute 16.5% of the U.S. population (United States Census Bureau, 2021). As of April 2022, older adults accounted for 11.6% of coronavirus disease 2019 (COVID-19) cases; however, they made up 75% of COVID-19-related deaths (Centers for Disease Control and Prevention [CDC], 2022). The high rates of mortality and hospitalizations among unvaccinated older adults due to severe cases of COVID-19 make the examination of vaccine hesitancy an important part of the strategy to reduce the spread of the disease (CDC, 2021).

Vaccine hesitancy is described as the reluctance or refusal to vaccinate despite the availability of vaccines (Beleche et al., 2021; Silva et al., 2022). Vaccine hesitancy is usually caused by doubts, distrust, and worries or fears concerning vaccine efficacy, protection, and safety. The literature on vaccine hesitancy among older populations had been explored prior to the pandemic with other vaccines, such as flu, shingles, and pneumonia (Nicholls et al., 2021). Some recent research specifically explored COVID-19 vaccine hesitancy. A study of community-dwelling older adults found changes in the type of information sources that were shown to influence vaccine decisions since the start of the pandemic (Bhagianadh & Arora, 2022). Prior research on attitudes in older adults found that health-care providers were the primary source of health information for older patients (Cutilli et al., 2018) and had the most influence on

the patients' decisions to vaccinate (Nicholls et al., 2021). However, during the pandemic, traditional media and the internet increasingly influenced vaccination decisions (Allington et al., 2021).

The second most used source of health information for older adults of all health literacy levels is TV and radio (Cutilli et al., 2018). Older adults with low health literacy and limited access to health-care providers are even more reliant on TV and radio. There is a wide array of COVID-19 information on these media platforms, some of which is deliberately false. Relying solely on these sources can make the impact of COVID-19 vaccine misinformation even greater (when encountered; Allington, 2021), especially among older racial and ethnic populations, who have lower health literacy and who may not have access to personal health-care providers. Studies of vaccine hesitancy show that older adults are less likely than young adults to get health information from social media (King et al., 2021). Therefore, different strategies are required to increase vaccination rates among older adults. The purpose of this paper is to examine vaccine hesitancy among unvaccinated older adults by geographic region and race and ethnicity. We also examine a few successful strategies that were implemented by some communities to reduce the number of unvaccinated older adults.

We extracted data for 43,565 adults (age 50 years and older) from the Household Pulse Survey collected from

April to May 2021. The Household Pulse Survey is a 20-minute online survey developed collaboratively among U.S. federal agencies to collect information on the social and economic effects of the COVID-19 pandemic (United States Census Bureau, 2022). We first examined differences in vaccine hesitancy by comparing older adults across four U.S. regions: West, Midwest, Northeast, and South. We compared unvaccinated older adults by race and ethnicity across regions, adjusting for gender, education, and insurance status.

Our results show that the highest proportion of unvaccinated older African Americans is among those living in the Midwest (18.1%), followed by those in the South (13.9%; see Figure 1). The highest proportion of unvaccinated older Hispanics is among those living in the Midwest (20.2%), followed by those in the Northeast (20.1%). The highest proportion of unvaccinated older Whites is among those living in the South (18.1%), followed by those in the West (14.8%). When we adjusted for these differences by gender, education, and insurance status, we found Hispanics living in the South were 21% less likely and African Americans were 42% less likely than Whites to receive a vaccine. We also discovered that Hispanics and African Americans living in the West were 23.2% and 23.8% less likely, respectively, to receive a vaccine. These results were statistically significant. Finally, our study results showed that older adults with either private insurance or public insurance were more likely to receive a vaccine.

Despite the availability of vaccines, many older adults are still forgoing vaccination as a preventive measure for COVID-19. Our results show that vaccine hesitancy is still high among older adults in some areas of the United

States. The U.S. region with the lowest overall number of unvaccinated older adults was the Northeast region. This area was the hardest hit by COVID-19 during the early days of the pandemic. Therefore, there may have been greater measures enacted to ensure that older adults received COVID-19 vaccinations (see Pendergrast, 2021). The results of our study show that there is still much more to be done to ensure the health and safety of our older populations from COVID-19 infections. Previous research has shown that older adults are more likely to receive vaccines that are recommended by their health-care providers. Our study results showed that older adults with either private insurance or public insurance were more likely to receive a vaccine. Having insurance increases the likelihood of having access to a health-care provider.

An important factor in the avoidance of COVID-19 vaccination is the growing sources of misinformation. Although older adults are less likely than younger adults to get misinformation from the internet or social media, because of the widespread nature of COVID-19 misinformation, a significant percentage may get inaccurate information from television or radio programs (Bhagianadh & Arora, 2022). Therefore, it is important to continue to target older adults at points of service, such as physician's offices, pharmacies, and other health-care providers. Other community-based organizations, such as churches, community centers, and senior centers, are also important resources in providing support to older adults to increase their knowledge and ability to evaluate health-related information (King et al., 2021). These are trusted community organizations that older people frequently visit, possibly making information received from them more creditable than even health information received from government sources.

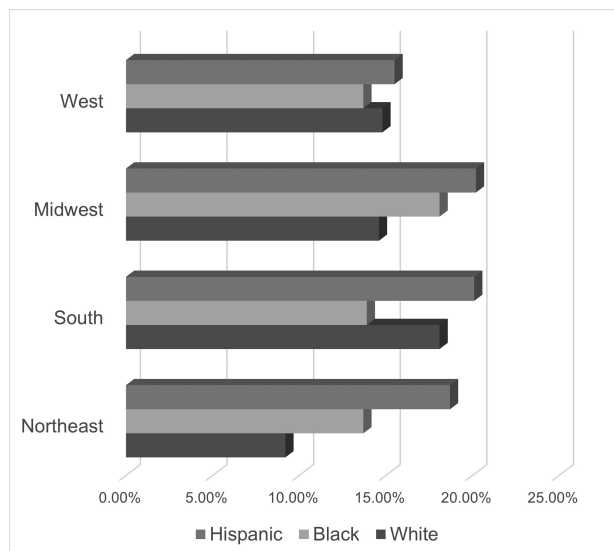


Figure 1. Regional differences in the proportion of older adults with vaccine hesitancy by race and ethnicity.

This study shows that vaccine hesitancy differs by geographic region and race and ethnicity. We believe that these geographic variations result from quality and quantity differences in vaccination access and health information provided to older adults about COVID-19.

This study shows that vaccine hesitancy differs by geographic region and race and ethnicity. We believe that these geographic variations result from quality and quantity differences in vaccination access and the health information provided to older adults about COVID-19. Some regions have implemented strategies to target vulnerable older populations by providing access to vaccinations in community settings, particularly among minority populations. For example, in regions with higher rates of vaccination, community-based

organizations played a significant part in increasing vaccination rates. Older adults were provided access to vaccinations through churches, community centers, pharmacies, and even grocery stores. These are places that large numbers of older adults visit on a weekly basis. Beyond an individual's access to a personal health-care provider, communities can improve the likelihood that an older adult will receive a COVID-19 vaccination by enlisting trusted community organizations in the fight to reduce COVID-19 infections and the resulting health consequences among unvaccinated older adults.

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Conflict of Interest

None.

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