

Spotlight

Vaccine Hesitancy among Older Adults, with Implications for COVID-19 Vaccination and Beyond

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Vaccination has become a routine part of preventative care in America. Many older adults face the decision of whether to receive a vaccine with ease: they choose to get all recommended vaccines or refuse vaccines entirely. Others, however, find the decision more complex and make it on a case-by-case basis. Experts consider adults who selectively choose which vaccines to accept to be vaccine hesitant.

The term vaccine hesitancy has come to encompass a range of meanings. It may describe general resistance toward vaccines, complete opposition to any vaccines, or more deliberate and specific pattern of actions. The World Health Organization's Strategic Advisory Group of Experts on Immunization concluded that vaccine hesitancy refers to selective vaccination behavior that is influenced by multiple factors, including safety concerns, affordability, and accessibility.¹

To date, little research has focused on vaccine hesitancy among older adults in the United States.² However, a recent AARP survey (hereafter referred to as "the AARP survey") shows that many older adults are vaccine hesitant.³ This report explores vaccine hesitancy among older adults, the attitudes

Key Takeaways

- ✓ **Nearly half of adults age 50 and older are vaccine hesitant. Another 11 percent never get vaccines.**
- ✓ **Vaccine hesitancy among older adults is driven largely by lack of confidence in the vaccine and its administration.**
- ✓ **Among older adults, hesitancy toward the flu vaccine is a reasonable predictor of hesitancy toward COVID-19 vaccines.**

that drive vaccine hesitancy, and the relationship between hesitancy toward the influenza vaccine and hesitancy toward COVID-19 vaccines.

Who Isn't Getting Recommended Vaccines?

The *2020 Report on Recommended Vaccines for Older Adults*, published by the Centers for Disease Control and Prevention (CDC) Advisory Committee on Immunization Practices (ACIP), recommends that older adults receive vaccines to protect against three viruses: influenza, shingles, and pneumonia.⁴

National immunization rates show that a significant share of adults ages 50 and older have not heeded ACIP’s recommendations (Figure 1).

Older adults likely have the most familiarity with the annual flu vaccine; the CDC has recommended it for this population every year since 1960. As such, it is not surprising that the vaccination rates for influenza are highest for the two ACIP-recommended vaccines for adults 50 and older. The CDC’s 2019 Behavioral Risk Factor Surveillance System (BRFSS) survey showed that 53 percent of adults ages 50 and older received a flu shot in the previous year. However, there were notable differences within the population. For example, Black (47 percent) and Hispanic (43 percent) older adults received flu vaccines at rates below their White (55 percent) counterparts.

ACIP has also recommended a one-time, two-dose shingles vaccine for adults ages 50 and older since 2008 to prevent shingles, caused by the herpes zoster virus, and associated complications. Since 2008, the share of the older adult population receiving a shingles vaccine has risen significantly.

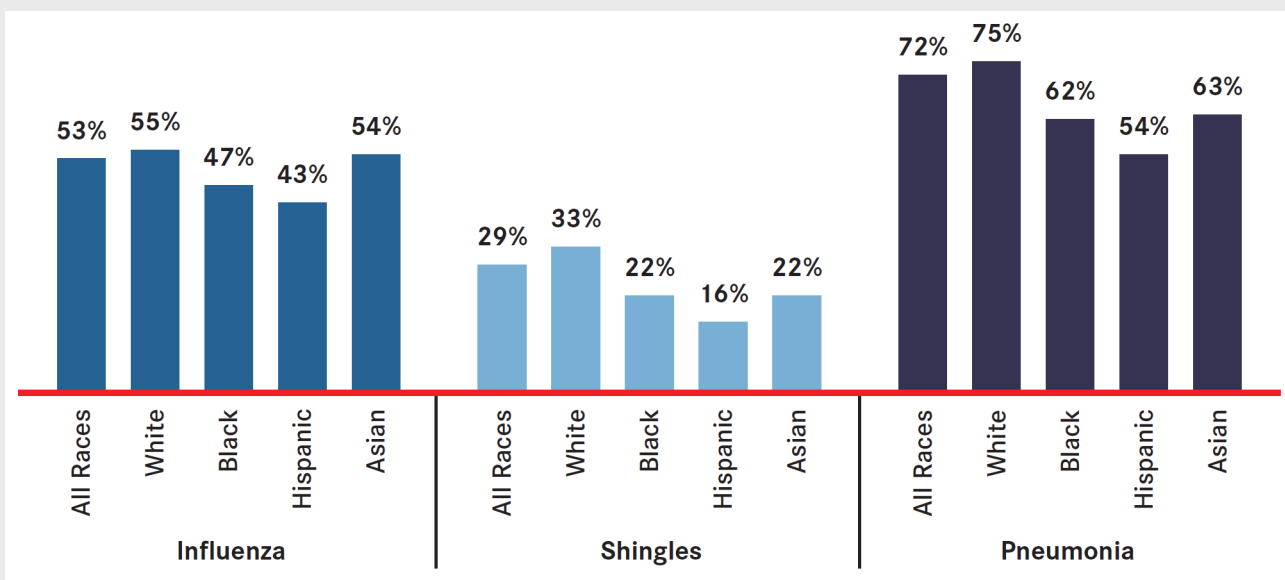
Yet, the overall rate has remained low.⁵ In 2019, 29 percent of older adults reported ever receiving a shingles vaccination. Once again, White adults ages 50 and older received the vaccine at higher rates (33 percent) than their Black (22 percent) and Hispanic (16 percent) counterparts.

Finally, ACIP currently recommends that every adult ages 65 and older, as well as some younger populations who are at high risk of contracting pneumonia, get a one-time vaccine against pneumococcal virus. In 2019, 72 percent of all adults ages 65 and older reported receiving the vaccine. White older adults received the vaccine at a considerably higher rate (75 percent) than their Hispanic (54 percent) and Black (62 percent) counterparts.

Wide Spectrum of Vaccination Behavior

When viewed collectively and longitudinally, vaccination rates for influenza, shingles, and pneumonia show a pattern of vaccine behavior, which includes vaccine hesitancy.

FIGURE 1
Vaccination Rates among Older Adults (2019)



Note: Pneumonia vaccination data are based on adults age 65+.

Source: AARP Public Policy Institute analysis of Behavioral Risk Factor Surveillance System (BRFSS) data

The AARP survey asked older adults the extent to which they get the vaccines recommended to them by their health care provider. Responses identified four types of vaccine behavior—gets all, gets most, gets a few, and gets none—that fall along a vaccine acceptance continuum (Figure 2). At one end of the continuum is the largest group: nearly half of adults ages 50 and older (45 percent) that get all of the vaccines recommended to them.

While this “gets all” behavior is the most common among older adults, there is some variation. Black adults ages 50 and over are less likely (33 percent get all) than their White (47 percent get all) or Hispanic (40 percent get all) counterparts to get all vaccines. Moreover, the likelihood of getting all recommended vaccines increases with an individual’s level of income and education (data not shown).⁶

At the other end of the continuum are older adults who get none of the vaccines recommended to them. This group is the smallest at 11 percent of adults ages 50 and older. Older adults in the group that gets no ACIP-recommended vaccines had varying levels of education and income and diverse racial and ethnic identities, suggesting that negative attitudes toward vaccines spans demographic differences.

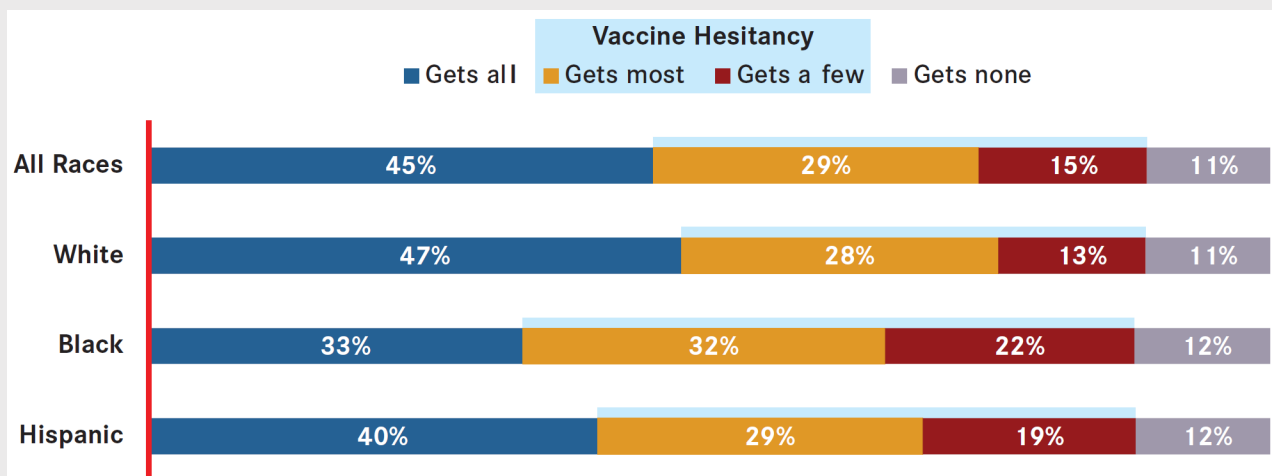
In the middle of the continuum are two groups who get some but not all of the vaccines recommended to them. Together, these groups represent vaccine hesitant older adults.⁷ The larger of the two groups is those who get most vaccines recommended by their health care provider (29 percent) and the smaller is comprised of more selective individuals who get only a few of the vaccines recommended to them (15 percent).

These two middle groups make up a significant portion of the population. Among all adults ages 50 and older, 44 percent fall into these two groups. Additionally, Black (54 percent) and Hispanic (48 percent) older adults fall into these two groups at higher rates than their White (41 percent) counterparts.

What is Driving Vaccine Hesitancy among Older Adults?

Behind the vaccination behavior of older adults are a number of motivating factors, which an individual’s previous experience with vaccines, information collected from various sources, including social networks, and awareness of and access to vaccinations may influence.⁸ The AARP survey isolated several factors driving decisions

FIGURE 2
Vaccine Behavior among Older Adults, by Race and Ethnicity



Source: AARP analysis of 2020 AARP Vaccine Survey

to accept or forgo vaccination. Respondents who reported being unlikely to get a flu vaccine this year were asked whether certain factors influenced their decision (Table 1). Among these respondents, concerns related to the vaccine and its administration ranked very high: 40 percent indicated concern with the vaccine's side effects and 26 percent were uncertain about the vaccine's effectiveness. Close to a third of respondents (32 percent) also indicated that they were in good health and didn't see the need to get the vaccine.

The data also reveal substantial differences by racial and ethnic group. For example, Black respondents were worried about the vaccine's side effects at higher rates (52 percent) than their White (40 percent) or Hispanic (36 percent) counterparts. Meanwhile, Hispanic respondents were more likely to have concerns with the vaccine's effectiveness (28 percent) than their White (27 percent) or Black (17 percent) counterparts.

COVID-19: Facing the Decision to Accept a New Vaccine

Unlike the other ACIP-recommended vaccines, COVID-19 vaccines have the potential to limit or stop a pandemic that has been affecting older adults at a disproportionate rate. Further, researchers and the government have developed COVID-19 vaccines on an unprecedented, accelerated timeline.

Such unusual circumstances could test the vaccine attitudes and behavior of older adults.

Yet, it appears that previous vaccine behavior may be a valid indicator of likely COVID-19 vaccine acceptance. The AARP survey, which was fielded prior to the authorization of the COVID-19 vaccines, showed that 65 percent of adults ages 50 and older were likely (37 percent very likely, 28 percent somewhat likely) to get a COVID-19 vaccine when it becomes available.⁹ This high rate, relative to other adults, is consistent with the recent flu vaccination rates of older adults (47 percent).¹⁰

It also appears that the factors driving hesitancy toward COVID-19 vaccines resemble the factors driving hesitancy toward the flu vaccine. The AARP survey asked older adults who indicated that they were unlikely to get a COVID-19 vaccine what factors were driving their decision (Table 2).¹¹ Once again, adults ages 50 and older most often cited worry about the vaccine's side effects, though with greater frequency (59 percent), and indicated concern with the vaccine's effectiveness (29 percent) as a top factor. In addition, respondents frequently noted the perceived risks of the COVID-19 vaccine (52 percent) as well as a distrust in the government (47 percent) as key factors.

As was the case toward the flu vaccine, the top factors influencing hesitancy toward COVID-19 vaccines had relatively little variation by race

TABLE 1
Concerns Reported by Older Adults Who Are Unlikely to get a Flu Vaccine, by Race

Concern	All Races	White	Black	Hispanic
Worried about side effects	40%	40%	52%	36%
Doesn't work very well	26%	27%	17%	28%
Flu is not a serious disease	7%	5%	8%	14%
Healthy and don't need a shot	32%	32%	16%	29%
Won't get around to it	13%	12%	13%	20%
Keeping away from health care sites	13%	12%	20%	11%
Waiting for the COVID-19 vaccine	3%	2%	6%	5%

Source: AARP analysis of 2020 AARP Vaccine Survey

TABLE 2
Concerns Reported by Older Adults Who Are Unlikely to get a COVID-19 Vaccine, by Race

Concern	All Races	White	Black	Hispanic
Worried about side effects	59%	55%	63%	69%
Risks outweigh the benefits	52%	54%	47%	51%
Won't protect me from infection	29%	28%	30%	38%
I don't trust the government	47%	42%	67%	42%
Don't think I'll get COVID-19	12%	13%	6%	9%
Healthy and don't need a shot	16%	18%	13%	14%
Keeping away from health care sites	13%	12%	11%	10%
Cost	9%	8%	10%	27%

Source: AARP analysis of 2020 AARP Vaccine Survey

or ethnicity. However, there were some notable differences. For example, Black older adults indicated distrust of the government at a much higher rate (67 percent) than their White (42 percent) or Hispanic (42 percent) counterparts. Additionally, Hispanics (69 percent) indicated concern with the vaccine's side effects more than other groups.

Overall, the rate of response is high for many of the factors influencing vaccine hesitancy. This is likely due to the high number of uncertainties around COVID-19 vaccines. Even so, older adults continued to identify overwhelmingly factors related to confidence as reasons not to accept the vaccine.

Conclusions and Further Considerations

The presence of vaccine hesitancy among older adults has implications for future vaccine uptake. In the immediate term, these data may inform the current outreach and implementation efforts around COVID-19 vaccines. With nearly half of older adults being vaccine hesitant and concerns related to vaccine safety, effectiveness, and administration being principal factors behind this hesitancy, providers and public officials may consider

developing targeted messaging that first seeks to build confidence around the vaccines and the entities administering them. In addition, differences in the factors influencing vaccine hesitancy among Black and Hispanic older adults suggest that micro-targeted messages may be most effective in outreach to diverse communities.

In the long term, an understanding of vaccine behaviors and attitudes can inform uptake on all ACIP-recommended vaccines. As the BRFSS data showed, much work remains to increase influenza, shingles, and pneumococcal vaccination rates. Providers, the CDC, and other stakeholders may explore interventions that directly address the factors contributing to vaccine hesitancy among older adults, beginning with those related to a lack of trust in vaccine safety and effectiveness.

This report shows that vaccine hesitancy is widespread among older adults. Attention to the factors driving it can improve vaccine attitudes and motivate individuals to get recommended vaccinations. However, failure to address it directly, or worse ignore it, could deepen such concerns and result in lower vaccination rates and elevated rates of illness and vaccine-preventable deaths among older adults.

- 1 This report will consider those who indicate getting a few or most of the vaccines recommended to them as delaying the acceptance or refusal of vaccines. *Report of the SAGE Working Group on Vaccine Hesitancy*, October 2014, https://www.who.int/immunization/sage/meetings/2014/october/1_Report_WORKING_GROUP_vaccine_hesitancy_final.pdf.
- 2 Much of the research on vaccine hesitancy in the United States has focused on the growth of vaccine hesitancy among parents of young children. See Courtney Gidengil, et al., “Beliefs around childhood vaccines in the United States: A systematic review,” *Vaccine*. 2019. 37 (45) 6793–6802.
- 3 Cheryl Lampkin, *2020 AARP Vaccine Survey*. AARP Research. February 2021. <https://www.aarp.org/research/topics/health/info-2021/vaccination-acceptance-older-adults.html>.
- 4 ACIP’s Recommended Immunization Schedule for Adults Aged 19 Years or Older is published in the MMWR and can be accessed at https://www.cdc.gov/mmwr/mmwr_wk/wk_pvol.html. In addition to vaccines for influenza, shingles, and pneumonia, ACIP recommendations also include vaccines for older adults based on their vaccination history. <https://www.cdc.gov/vaccines/schedules/hcp/imz/adult.html>
- 5 In 2018, ACIP changed its recommendation for shingles, calling for adults age 50 and older to receive recombinant zoster vaccine (RZV) rather than zoster vaccine live (ZVL). Previously ACIP had recommended that only adults age 60 and over receive a shingles vaccine. https://www.cdc.gov/mmwr/volumes/67/wr/mm6705e3.htm?s_cid=mm6705e3_w
- 6 Response rates increased steadily with increased education—no High School diploma (33 percent), High School graduate or equivalence (36 percent), some college (43 percent), and bachelor’s degree or above (57 percent). Rates also increased, though less dramatically, with respect to annual income—less than \$30,000 (41 percent), \$30,000–59,999 (42 percent), \$60,000–99,999 (45 percent), and \$100,000 or more (53 percent).
- 7 Most representations of the vaccine acceptance continuum include five categories of behavior: gets all with confidence, gets all with doubts and concerns, gets some or most vaccines, refuses with doubts, and refuses all with confidence. Vaccine hesitancy would typically include the middle three groups. However, the AARP survey does not break out the confidence levels of those who get or refuse all vaccines. As such, this report’s exploration of vaccine hesitancy will focus on those who get a few or most of the vaccines recommended to them. See Eve Dubé, presentation at NASEM’s Virtual Meeting on Improving Vaccine Uptake, May 28, 2020, <https://www.nationalacademies.org/event/05-28-2020/docs/DAA8DE2E8310C154CC1440B3790C8B440E196D717A3A>.
- 8 Rachael Piltch-Loeb and Ralph DiClemente, “The Vaccine Uptake Continuum: Applying Social Science Theory to Shift Vaccine Hesitancy,” *Vaccines*. 2020. 8 (1) 76.
- 9 A more recent Kaiser Family Foundation survey showed increased willingness among older adults to get the vaccine—75 percent of adults ages 50 to 64 and 87 percent of adults ages 65 and older. Liz Hamel, Ashley Kirzinger, Cailey Muñana, and Mollyann Brodie, *KFF COVID-19 Vaccine Monitor: December 2020*. Kaiser Family Foundation. December 15, 2020. <https://www.kff.org/coronavirus-covid-19/report/kff-covid-19-vaccine-monitor-december-2020/>.
- 10 Funk, C and Tyson, A. *U.S. Public Now Divided Over Whether To Get COVID-19 Vaccine*. Pew Research Center. September 17, 2020. <https://www.pewresearch.org/science/2020/09/17/u-s-public-now-divided-over-whether-to-get-covid-19-vaccine/>.
- 11 The choices for the survey question asking about factors influencing a decision not to get the COVID-19 vaccine has some overlap with the choices of for the survey question asking about factors influencing a decision not to get the influenza vaccine. However, as shown in Table 2, the set of factors differed slightly, given the unique environment around COVID-19 vaccines.

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