



CDC's State of Vaccine Confidence Insights Report

Long-Term Care Settings
Special Report

May 18, 2023

Date Range: March 1, 2020 - February 17, 2023



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COVID-19 Response, Vaccine Task Force**
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The findings and conclusions in this report are those of the author(s) and do not necessarily represent the official position of the Centers for Disease Control and Prevention (CDC).



Summary

This report is a cumulative representation of themes affecting vaccine hesitancy, confidence, and uptake among older adults living in long-term care settings (nursing homes and residential care communities) from the beginning of the COVID-19 pandemic in 2020 through mid-February 2023.

Major themes identified from social media, news, and other sources that may impact vaccine confidence:

- Facing new waves of misinformation and ongoing vaccine fatigue, older adults in long-term care settings have expressed less interest in receiving updated (bivalent) COVID-19 booster doses. Concerns about vaccine safety and effectiveness may be exacerbated by exposure to social media or news coverage emphasizing the severity and incidence of adverse reactions from COVID-19 vaccination, which can activate cognitive biases that undermine vaccine confidence.
- Some social media users have claimed that people 65 years and older are not receiving the updated COVID-19 booster because it is ineffective.
- Older adults who take multiple medications may be hesitant to seek the updated COVID-19 booster doses as they are concerned that their medications would negatively impact the effectiveness of the COVID-19 vaccines. In addition, older adults taking multiple medications may believe that the updated COVID-19 booster dose could cause an allergic reaction or serious adverse event, putting their health at risk.

Ways public health and partners can take action to improve vaccine confidence:

- Consider supporting and/or collaborating with long-term care settings to provide vaccinations on-site.
- Provide clear and concise information tailored specifically to older adults regarding the safety and effectiveness of COVID-19 vaccines, especially to reduce the risk of severe disease from COVID-19. Use relevant images and culturally appropriate language.
- Provide educational trainings to staff in long-term care settings that encourage vaccine confidence and uptake in staff, as well as increased confidence in recommending COVID-19 vaccination to residents.
- Create or promote tools and resources to help health providers identify, discuss, and address incorrect COVID-19 vaccine information with patients in a respectful and empathetic manner.
- Disseminate or use resources provided by the [American Health Care Association](#) and the [National Center for Assisted Living](#), [Administration for Community Living](#), [AMDAs](#), and [AARP](#), which include strategies to improve staff vaccination rates, talking points, one-pagers, graphics, and post-vaccination materials.
- Disseminate or use resources from CDC's [Vaccinate with Confidence](#) initiative, including [Myths and Facts about COVID-19 Vaccines](#) and [Talking with Patients about COVID-19 Vaccination](#).

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Aims and Methods

By rapidly reviewing and analyzing numerous specific sources and inputs from long-term care settings, this State of Vaccine Confidence Insights Report emphasizes major themes influencing vaccine hesitancy and uptake among older adults living in nursing homes and residential care communities. In addition, by examining how consumers think and feel, social processes, and the practical issues around vaccination, the Insights Report seeks to identify emerging issues of misinformation to help identify where intervention efforts can improve vaccine confidence. Data for this report were specifically gathered to help analyze themes across the United States before, during, and after the initial COVID-19 vaccine rollout.^a

The information in this report is only a snapshot, and certain populations may be underrepresented. Images and quotes are illustrative examples and are not meant to comprehensively cover all content related to the highlighted themes.

Introduction and Background^b

At the onset of the COVID-19 pandemic, approximately 2.1 million people were living in nursing homes or residential care communities,¹ a population at heightened risk for severe COVID-19 complications due to older age and/or underlying health conditions.^{2,3,4} Many of the earliest COVID-19 outbreaks occurred within long-term care settings,^{5,6,7,8} which were and continue to be heavily impacted by COVID-19.^{9,10} By August 2021, nursing home residents accounted for over 20% of all COVID-19 deaths in the United States.¹¹ To protect individuals who live and work in long-term care settings, healthcare personnel and long-term care residents were included as priority populations in the initial phase of the COVID-19 vaccine rollout in December 2020.¹²

As of March 26, 2023, 85.6% of adults receiving care in nursing homes have completed their COVID-19 primary vaccine series.^{13,14} However, recent government efforts to increase coverage for the updated COVID-19 booster vaccines in this population have had limited success.^{15,16} To date, only 53% of nursing home residents have received the updated COVID-19 booster dose,¹³ which confer additional protection against SARS-CoV-2 infection and hospitalization in this population. Reasons for low COVID-19 vaccine uptake among adults in long-term care settings include high rates of vaccine hesitancy among residents and staff, a lack of awareness or confusion around the updated booster doses,¹⁷ a lack of staff to administer vaccines, differential levels of vaccine access,^{18,19} and pandemic fatigue.²⁰ Due to these barriers of vaccine uptake, it is imperative that governmental organizations and long-term care settings emphasize, model, and utilize non-pharmaceutical interventions^{21,22,23} in addition to vaccination and engage in targeted vaccination campaigns to reduce the spread of and prevent severe illness from SARS-CoV-2 in long-term care settings.²⁴

COVID-19

Coronavirus Stress Test: Many 5-Star Nursing Homes Have Infection-Control Lapses

By Jordan Rau • MARCH 4, 2020

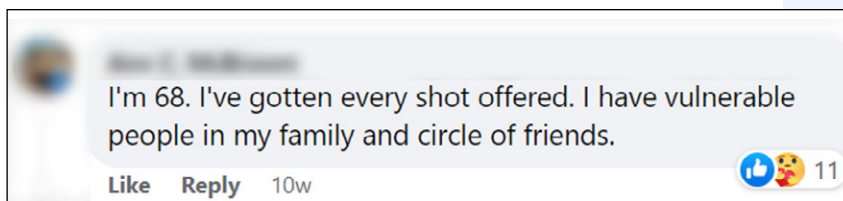
^aUnless specified, "COVID-19 vaccines" refers to both the primary series and booster doses.

^b Social media posts referenced throughout this report can be found in [this online document](#).



Perceptions, Concerns, and Threats to Vaccine Confidence Affecting Older Adults Aged 65+

- Many factors influence vaccine confidence and vaccine hesitancy among older adults. In particular, mis- and disinformation regarding vaccine safety and effectiveness has led to increased vaccine hesitancy among older adults who may be unsure about which sources of information are trustworthy, indicating a need to provide clear and accurate information directly aimed at older adults.^{25,26,c}
- Some older adults have shared that they received the COVID-19 vaccine and encourage others to receive COVID-19 vaccines as well.^{27,28,29,30}
- Some social media users believe that there has not been an emphasis on vaccinating older populations because culture in the United States deems older adults an “expendable” population.³¹
- Some social media users believe older populations should mitigate risk through non-pharmaceutical interventions, such as mask-wearing.^{32,33,34,35}
- Some social media users believe that the push to vaccinate older populations is part of a conspiratorial plot to kill off senior citizens.^{36,37}



Misinformation and Hesitancy Themes Among Older Adults Aged 65+

- Older adults are not only at higher risk of severe illness from COVID-19, but have been identified as a population that may be particularly vulnerable to mis- and disinformation about COVID-19 illness and vaccination.³⁸ There are several factors that may impact older adults’ ability to discern mis- and disinformation, including cognitive decline, digital illiteracy, preferred information sources, and other cognitive barriers.^{26,38,39,40,41,42,43}

Vaccine Safety and Effectiveness

- Some older adults who take multiple medications may be hesitant to seek the updated COVID-19 booster doses as they are concerned that their medications would negatively impact the effectiveness of the COVID-19 vaccines.^c In addition, some older adults taking multiple medications may believe that the updated COVID-19 booster dose could cause an allergic reaction or serious adverse event, putting their health at risk.^c
- The effectiveness of the COVID-19 vaccines was a concern for some older adults, fearing that they would have breakthrough cases regardless and that receiving the vaccine would therefore not be worth their time.^c
- Misinformation about the effectiveness of the COVID-19 vaccines has generated confusion among some seniors, with sources portraying the length of effectiveness of COVID-19 vaccines incongruent with published clinical studies.^c

Vaccine Acceptance: Older Adults Need Accurate Information

For adults ages 50-plus considering vaccinations, a trusted messenger is key.

^c CDC-INFO.



- Some older adults who are hesitant to receive COVID-19 vaccines are concerned about a potential increased risk of stroke associated with the COVID-19 vaccination (a safety signal was detected in a single U.S. vaccine surveillance system, but not in other U.S. systems or in other countries).^{44,c} During the initial COVID-19 vaccine rollout in March 2021, the potential for less serious side effects—such as malaise, fatigue, nausea, fever, and soreness—was also a contributing factor to vaccine hesitancy among older adults.²⁵
- Some social media users claim people 65 years of age and older are not receiving the updated COVID-19 booster because it is ineffective.^{45,46,47}

Trusted Sources

- Many older adults who are hesitant to get vaccinated state that they are unsure about the accuracy of information, and unsure of which sources could be considered trustworthy.²⁵ Approximately 74% of older adults trust their doctor to give them accurate information, compared to approximately 50% of older adults who trust information provided by the government.²⁵

Vaccine Costs

- During the initial COVID-19 vaccine rollout, over 310,000 older adults indicated that they were not planning to receive their COVID-19 vaccine due to the misconception that the vaccine would be an out-of-pocket cost.⁴⁸ While COVID-19 vaccines are and will continue to be available at no cost to all Medicare beneficiaries,^{49,50} the anticipated end to the federal emergency declarations for COVID-19 in May 2023 could cause additional confusion and misinformation about the affordability of COVID-19 booster doses in the future.

Perceptions, Concerns, and Threats to Vaccine Confidence Affecting Long-Term Care Settings

- Long-term care settings are subject to unique challenges that affect the perceptions and concerns surrounding COVID-19 vaccination. Sources of mis- and disinformation have fueled concerns regarding the costs, safety and effectiveness of COVID-19 vaccines among those living in long-term care settings.⁵¹ Some state regulations requiring COVID-19 vaccination have not been strictly enforced, and rapidly changing COVID-19 guidelines have led to confusion and have undermined vaccine confidence within long-term care settings.^{51,52,53}
- Misperceptions about COVID-19 vaccine requirements for nursing home staff have led some social media users to believe that nursing home residents are being mandated to receive a COVID-19 vaccine.^{54,55,56}
- Some social media users are using social media to share experiences of family members in nursing homes during the COVID-19 pandemic and urging residents in long-term care to get vaccinated.^{57,58}
- Through funded partnerships with CDC, HHS, and others, some nonprofit organizations are expanding use of vaccination clinics to increase vaccine uptake in nursing home staff and residents.⁵⁹
- Some social media users believe that the number of COVID-19 deaths in nursing homes are preventable. This sentiment was especially prevalent during the early months of the pandemic before COVID-19 vaccines were available.^{60,61,62,63,64}
- Some social media users believe residents in long-term care settings are refusing the COVID-19 vaccines due to safety concerns.^{65,66,67,68}

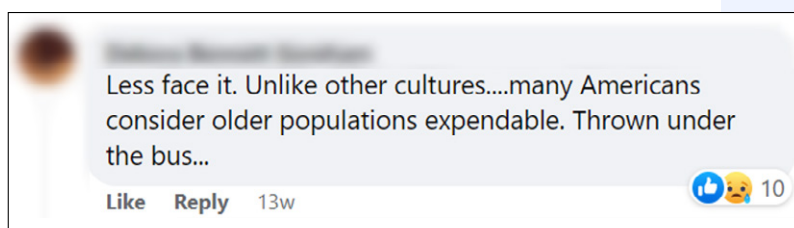


Misinformation and Hesitancy Themes Affecting Long-Term Care Settings

Some older adults have been exposed to an array of misleading, inaccurate, or outdated information from various sources, resulting in confusion, frustration, and vaccine hesitancy.^c Misinformation about the updated COVID-19 booster's cost, effectiveness, and availability continues to circulate within long-term care settings.^{51,52}

Vaccine Confusion in Long-Term Care Settings

- Many older adults who live in long-term care settings state the confusion caused by frequently changing guidelines, regulations, and locations to acquire updated COVID-19 booster doses.⁵¹ The volume and speed of incoming information from news sources, staff, and family members can make it difficult for older adults to understand how and when they should acquire their updated COVID-19 booster doses.^{51,53}
- Some long-term care staff who are not in favor of COVID-19 vaccines can unintentionally influence their patients to become more vaccine hesitant.^{c,52}
- While long-term care facilities are held to federal regulations requiring vaccination and COVID-19 infection reporting of both residents and staff, regulatory enforcement and inspection of these 15,000+ facilities are carried out at the state level approximately once per year on a rolling basis.⁵²
- Fluctuating regulations between states and long-term care settings have affected older adults relocating or transferring into long-term care, as they may be unsure about COVID-19 vaccination requirements, if any, in a specific facility.^{c,52} Some long-term care residents expect to receive the vaccine at the facility itself and may delay vaccination until their arrival, only to discover the facility does not offer updated COVID-19 booster doses to their residents but instead requires vaccination before arrival.^c



Vaccine Fatigue, Lack of Interest, and Misinformation in Long-Term Care Settings

- Facing new waves of misinformation and ongoing vaccine fatigue, older adults in long-term care settings have expressed less interest in receiving updated COVID-19 booster doses.^{16,17,69} Concerns about vaccine safety and effectiveness may be exacerbated by exposure to social media or news coverage emphasizing the severity and incidence of adverse reactions from COVID-19 vaccination, which can activate cognitive biases that undermine vaccine confidence.^{70,71,72}

^c CDC-INFO.



Ways Public Health and Partners Can Take Action to Improve Vaccine Confidence

- Provide clear and concise information tailored specifically to older adults regarding the safety and effectiveness of COVID-19 vaccines, especially to reduce the risk of severe disease from COVID-19. Use relevant images and culturally appropriate language.
- Provide educational trainings to staff in long-term care settings that contain accurate information about COVID-19 vaccines and policies in order to encourage vaccine confidence and uptake among staff, and to increase staff confidence in recommending COVID-19 vaccination to residents.
- Consider supporting and/or collaborating with long-term care settings to provide vaccinations on-site.
- Create or promote tools and resources to help health providers identify, discuss, and address incorrect COVID-19 vaccine information with patients in a respectful and empathetic manner.
- Disseminate or use resources provided by the [American Health Care Association and the National Center for Assisted Living](#), [Administration for Community Living](#), [AMDA](#), and [AARP](#), which include strategies to improve staff vaccination rates, talking points, one-pagers, graphics, and post-vaccination materials.
- Disseminate or use resources from CDC's [Vaccinate with Confidence](#) initiative, including [Myths and Facts about COVID-19 Vaccines](#) and [Talking with Patients about COVID-19 Vaccination](#).



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Note: omitted numbers are social media citations, which can be accessed [here](#).

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Appendix: Inputs and Sources

Social Media Listening & Media Monitoring Data Sources

Input	Cadence	Sources	Tactics for Utilization
Communication Surveillance Report	Daily on weekdays	<ul style="list-style-type: none"> Google news Meltwater CrowdTangle Native platform searches 	<ul style="list-style-type: none"> Share of voice topic analysis to identify themes Emerging topics
Meltwater	Daily	<ul style="list-style-type: none"> Facebook, Twitter, Instagram Blogs News media Online forums 	<ul style="list-style-type: none"> Share of voice topic analysis Emerging theme topics Identify high reach/velocity topics
OADC (Office of the Associate Director of Communication) Channel COVID-19 Post metrics	Weekly	<ul style="list-style-type: none"> Sprout Social Native OADC (Office of the Associate Director of Communication) account analytics 	<ul style="list-style-type: none"> Analyze # of posts, topics Success of messages, # of impressions, reach, # engagements
OADC Channel Comment Analysis	Daily on weekdays	<ul style="list-style-type: none"> Native platform searches 	<ul style="list-style-type: none"> Sentiment analysis Identify message gaps/voids

Direct Report Data Sources

Input	Cadence	Sources	Tactics for Utilization
CDC-INFO Metrics	Weekly	<ul style="list-style-type: none"> CDC-INFO inquiry line list Prepared response (PR) usage report 	<ul style="list-style-type: none"> Cross-compare PR usage with inquiry theme analysis Sentiment analysis Identify information gaps/voids
VTF Media Requests	Weekly	<ul style="list-style-type: none"> Media request line list 	<ul style="list-style-type: none"> Leading indicator for news coverage Identify information gaps/voids
Web Metrics	Weekly	<ul style="list-style-type: none"> Top pages Google search queries Top FAQs Referring domains 	<ul style="list-style-type: none"> Identify information gaps/voids, Identify keywords/search terms, changes in web traffic



Research and Literature Data Sources

Input	Cadence	Sources	Tactics for Utilization
Poll Review	Weekly	<ul style="list-style-type: none"> ▪ Harris Poll, PEW research, Gallup Poll, KFF, Annenberg Public Policy Center ▪ New data related to vaccine hesitancy 	<ul style="list-style-type: none"> ▪ Identify socio-behavior indicators related to motivation and intention to vaccinate
Literature Review	Weekly	<ul style="list-style-type: none"> ▪ PubMed, LitCovid, ProQuest Central, Altmetric ▪ New data related to vaccine hesitancy 	<ul style="list-style-type: none"> ▪ Identify current vaccination intention ▪ Identify barriers to vaccination

Third Party Report Data Sources

Input	Cadence	Sources	Tactics for Utilization
Tanaq Social Listening +Media Monitoring Report	Weekly	<ul style="list-style-type: none"> ▪ Meltwater ▪ Sprout Social ▪ First Draft ▪ Native platform searches 	<ul style="list-style-type: none"> ▪ Trending topics ▪ Demographic and geographic conversation monitoring
Washington St. Louis iHeard	Weekly	<ul style="list-style-type: none"> ▪ Proprietary methods 	<ul style="list-style-type: none"> ▪ Survey results ▪ Emerging threats and data deficits ▪ Vaccine narratives
Project VCTR	Weekly	<ul style="list-style-type: none"> ▪ Proprietary methods 	<ul style="list-style-type: none"> ▪ National and regional trends in negative attitudes toward vaccination ▪ Conversations around Legislation