

COVID-19 State of Vaccine Confidence Insights Report

Report 7 | May 10, 2021 | Date Range: April 13-26, 2021



Summary

Findings. Despite expanded eligibility for vaccination, vaccine supply has begun to exceed demand and vaccination rates are trending down in many states and jurisdictions across the country. States and jurisdictions are changing tactics to expand access and increase vaccine uptake; however, communities of color continue to face challenges accessing COVID-19 vaccines. Announcements by Pfizer-BioNTech and Moderna about the likely need for a booster shot caused some to express their belief this is a business decision rather than one that is in the best interest of public health. Lastly, parents are confused about the benefits of vaccination for children. Misinformation is increasing as the first Emergency Use Authorization (EUA) for COVID-19 vaccination of children aged 12–15 years nears.

Ways to take action. Federal, state, and local partners should continue to work together to increase transparency around rationale for updated guidance, respond to gaps in information, and confront misinformation with evidence-based messaging. The goal of these efforts is to increase confidence in COVID-19 vaccines and expand vaccine uptake more broadly. More research should be conducted to better understand the role that incentives play in a person's motivation and intent to get vaccinated. Regular updates should be provided on the benefits, safety, side effects, and effectiveness of COVID-19 vaccines for children and adolescents in addition to adults.



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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).

Aims and Methods

By rapidly reviewing and analyzing numerous sources and inputs (see [Appendix](#)), the biweekly COVID-19 State of Vaccine Confidence Insights Report emphasizes major themes that influence COVID-19 vaccine hesitancy and uptake. These are characterized by level and type of threat to vaccine confidence, degree of spread, and directionality. 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, disinformation, and places where intervention efforts can improve vaccine confidence across the United States.

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 be comprehensive of all content related to the highlighted themes.

Theme Classification

How do you classify this theme/information?			
High risk	Moderate risk	Low risk	Positive sentiment
			
<ul style="list-style-type: none"> May lead to vaccine refusals and decreased uptake Wide reach, pervasive 	<ul style="list-style-type: none"> Potential to trigger hesitancy to vaccinate Moderate reach, modest dissemination 	<ul style="list-style-type: none"> Concerning, but low risk to vaccine confidence Limited reach, limited dissemination 	<ul style="list-style-type: none"> Could increase vaccine confidence, intent, or motivation Variable reach and dissemination

How has this theme/idea changed over time (since last report or over the course of multiple reports)?		
<p>Increasing Information spreading rapidly</p>	<p>Stable Information remaining constant at prior level</p>	<p>Decreasing Information is not gaining further traction and there has been no indication of additional activity</p>

Major Themes



News coverage on the potential of booster doses is causing some consumers to believe vaccines are ineffective and are being promoted for financial gain.

Both Pfizer-BioNTech and Moderna stated that consumers who received both doses of their mRNA COVID-19 vaccine will most likely also require a booster shot within 12 months.^{1,2} The idea that COVID-19 vaccines will not provide lifelong immunity and will operate more like annual flu vaccines is perceived as demoralizing news for vaccine hesitant consumers.^{3,4,5} Some vocal vaccine deniers falsely interpreted this announcement as an admission that two vaccine doses “aren’t enough” and that Pfizer-BioNTech dosage “doesn’t work.”⁶ Other deniers claimed this information is evidence that pharmaceutical companies are striving to increase profits — an opinion that gained traction and has been amplified on social media.^{7,8,9,10,a} Further, a recent focus group of vaccine hesitant consumers largely considered the choice to recommend booster doses will be a “business decision” driven by money, rather than by public health.¹¹

Additionally, CDC offered its first public reporting of the number of breakthrough cases of COVID-19 among fully vaccinated adults,^{12,13} lending further evidence for some that COVID-19 vaccines may not be as effective as the industry and government suggest.^{14,15} As consumers contend with new information related to the potential need for booster doses of COVID-19 vaccine, breakthrough cases, and the length of immune protection, news media report that the endpoint of the pandemic remains uncertain.^{16,17} As stamina for enduring the pandemic continues to wane, it is critical for trusted messengers to amplify evidence-based data how a decision regarding booster doses will be made that resonates more clearly than information provided by influencers wielding misinformation.¹⁸



Ways to act:

- Share clear, complete, and accurate messages about the effectiveness of COVID-19 vaccines and the benefits of vaccination to promote trust in vaccines, vaccinators, and the health vaccination system. Update talking points and messaging to better explain the latest data about booster doses, breakthrough cases, asymptomatic spread, and long-term immunity against COVID-19, including in formats designed to be easily shared online.
- Proactively address and mitigate the spread and harm of misinformation via social media platforms, partners, and trusted messengers. Offer guidance to healthcare professionals who want to engage more effectively online and amplify voices of trusted messengers and vaccine advocates such as [#ThisIsOurShot](#) to engage directly with consumers.



Consumer access to vaccines remains an issue for communities of color despite many states and jurisdictions reporting excess supply.

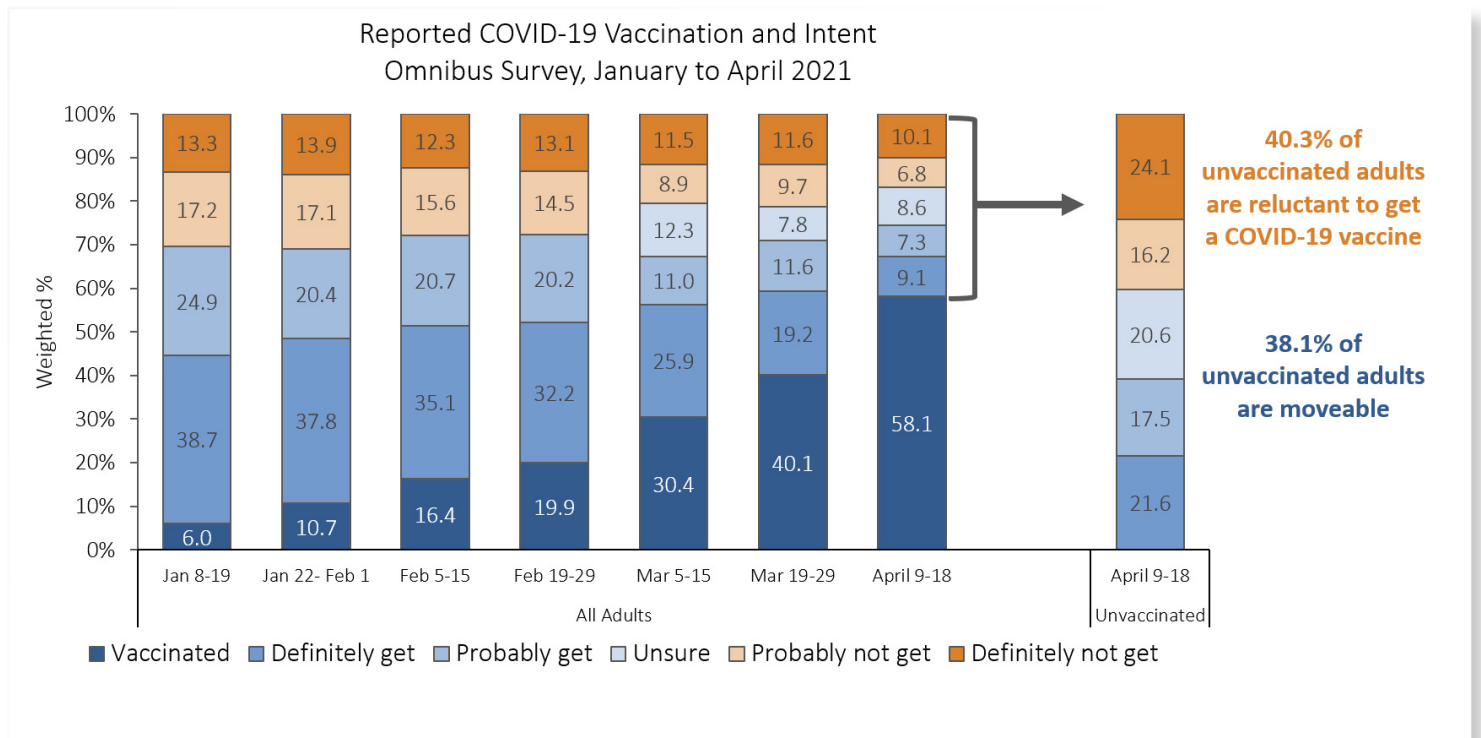
Consumers 16 years and older became eligible for COVID-19 vaccinations in all states and jurisdictions on April 19, 2021.¹⁹ However, despite this expansion, an increasing number of news articles are reporting on the downward trend in the number of vaccine doses administered daily, with 41 states experiencing declines in vaccination and 11 of those states with declines of 25% or more.^{20,21,22,23}

Regions in which vaccine coverage is low²⁴ and cases of COVID-19 illness are increasing are also experiencing declines in vaccine uptake.²⁵ In many states and jurisdictions, vaccine supply has begun to exceed demand for the first time.

Numerous reports in news media emerged about how vaccination strategies are changing across the United States. Some jurisdictions are shifting from reservation-only vaccination sites to walk-in clinics,²⁶ expanding access through employers,²⁷ hosting pop up clinics,²⁸ and increasing mobile clinic efforts.²⁹ In addition to modifying vaccination outreach tactics, news media reported on incentive initiatives, like giving those who get vaccinated gift cards,³⁰ vouchers to visit museums,³¹ and even extra vacation days,^{32,33} all in an effort to bolster vaccine demand.



Source: <https://medium.com/bloomberg/unused-vaccines-are-piling-up-across-u-s-as-some-regions-resist-9f75f64e7756>



Source: Graph: Unpublished data. For methods and previous Omnibus data please see: Nguyen KH, Srivastav A, Razzaghi H, et al. COVID-19 Vaccination Intent, Perceptions, and Reasons for Not Vaccinating Among Groups Prioritized for Early Vaccination — United States, September and December 2020. MMWR Morb Mortal Wkly Rep 2021;70:217–222. DOI: <http://dx.doi.org/10.15585/mmwr.mm7006e3>

Conversations in the news media and on social media about vaccine supply also escalated during this period, with reports surfacing that states and jurisdictions are turning away shipments of vaccine.^{34,35} However, data indicate that among unvaccinated adults, about 40% are reluctant, 40% are moveable, and only 20% will definitely get a vaccine.³⁶ Projections from a recent poll indicate that if current “vaccine enthusiasm” remains the same, every willing adult would be vaccinated by mid-May.³⁷ These polling data and slowing vaccine administration rates indicate the potential difficulty public health will face to meet President Biden’s newest goal of reaching 70% of adults receiving least one dose of vaccine by July 4, 2021. More efforts will be needed to generate demand to continue steady or increase vaccine administration rates.³⁸

Ways to act:

- Measure national, state, and local progress toward coverage goals and update consumers regularly. Clear and transparent coverage goals stand to build trust in the healthcare system, encourage accountability, improve measurement of confidence and demand-building efforts, and promote equitable distribution and uptake of COVID-19 vaccines.
- Partner with local and ethnic media outlets to highlight the successes of vaccination efforts at local levels. Large declines in vaccinations rates in some jurisdictions were a result of high vaccine coverage among eligible population rather than a sign of decreasing vaccine confidence.³⁹ Partner with media outlets to further amplify messages about the benefits of COVID-19 vaccination and consumer vaccination stories.
- Support research to better understand the enduring barriers communities of color and medically underserved communities face to access COVID-19 vaccination. Identify states and jurisdictions with innovative practices for reaching these populations for COVID-19 vaccination and amplify these initiatives.

Emerging Theme



Parents are confused about the benefits of COVID-19 vaccination for children.

The possibility of the Pfizer-BioNTech COVID-19 vaccine being authorized and recommended for children 12 to 15 years old has spurred widespread media coverage and social media conversations. Parents are confused about the benefits of COVID-19 vaccination for children and if potential hazards of vaccination outweigh the risks of getting COVID-19, even as reports of spikes in child COVID-19 hospitalizations in Michigan grow.⁴⁰

Although children's risk of dying from the virus remains low in the United States, the latest report from the American Academy of Pediatrics and the Children's Hospital Association indicates that children younger than 19 now account for 20.6% of all new COVID-19 cases added this April, up from 2.6% in April of 2020.^{41,42,43} Researchers note that because children and adolescents were less likely to be infected with COVID-19 last year, they are less likely to have antibodies to protect them from the virus and are also generally too young to get vaccinated.^{44,45}

At the same time, momentum in much of the country is shifting toward returning to normal, and parents are weighing the risks they are comfortable taking related to their children during the next school year.⁴⁶ CDC-INFO has seen an increase in inquiries from parents about whether their children may need vaccine "passports" to travel, participate in extracurricular activities, or attend school, whether they need to be present to consent to vaccination of their children, and what the timeline is for child and adolescent vaccine authorization and availability.

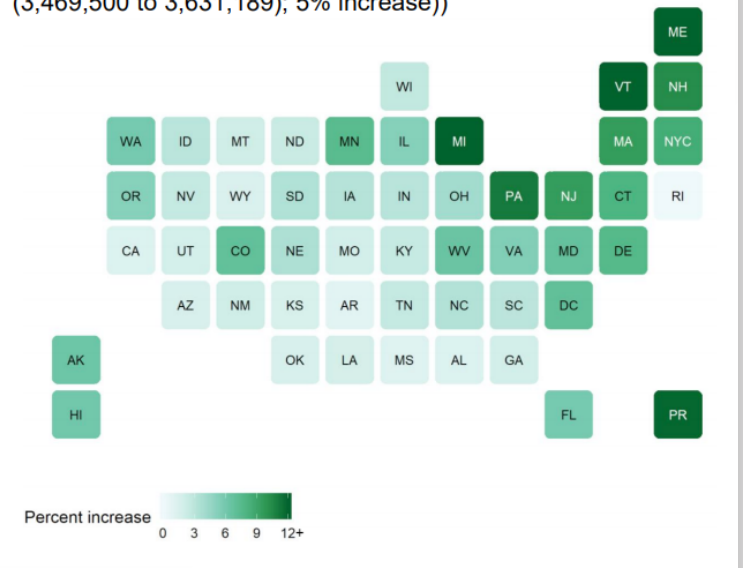
Other reports note that many families, especially those in Hispanic or Latino persons disproportionately affected by COVID-19, fear physical school reopening due to perceived COVID-19 transmission risks.^{47,48} Regardless of whether schools mandate vaccination, it will be important to ensure equitable vaccine access to help ensure children have vaccination opportunities. Pfizer-BioNTech's vaccine is the only one thus far to seek emergency use authorization (EUA) for children aged 12 to 15, and it currently faces the greatest distribution difficulties in rural areas because of its unique storage and handling requirements.^{49,50} Finally, an unverified claim that a 12-year-old enrolled in a vaccine trial has been hospitalized as a result of receiving the vaccine has spread widely among anti-vaccine groups, and continues to circulate.^{51,52,53} Misinformation surrounding child and adolescent vaccination will likely increase as vaccines become authorized and recommended for these age groups.

Ways to act:

- Communicate transparently about the process for authorizing, recommending, monitoring the safety of, and administering COVID-19 vaccines to children. Provide regular updates on the benefits, safety, side effects, and effectiveness of COVID-19 vaccines for children and adolescents and clearly communicate both what is known and unknown about the vaccine's use in children. Also, continue to disseminate messages about what is and is not known about the risk of getting COVID-19 for children and adolescents.
- Support research to better understand parents' and adolescents' feelings and intent toward COVID-19 vaccination, content gaps, and motivators. Use findings to develop resources for healthcare professionals, school administrators, and other trusted messengers to promote confidence in COVID-19 vaccines for children and adolescents.

B. Percent Increase in Child Cases, 4/1/21-4/15/21

From 4/1-4/15, there were 161,689 new child cases reported (3,469,500 to 3,631,189); 5% increase)



Source: [https://downloads.aap.org/AAP/PDF/AAP_and_CHA - Children and COVID-19 State Data Report 4.15.21 FINAL.pdf](https://downloads.aap.org/AAP/PDF/AAP_and_CHA_-_Children_and_COVID-19_State_Data_Report_4.15.21_FINAL.pdf)

Update: Lifting the J&J/Janssen Pause

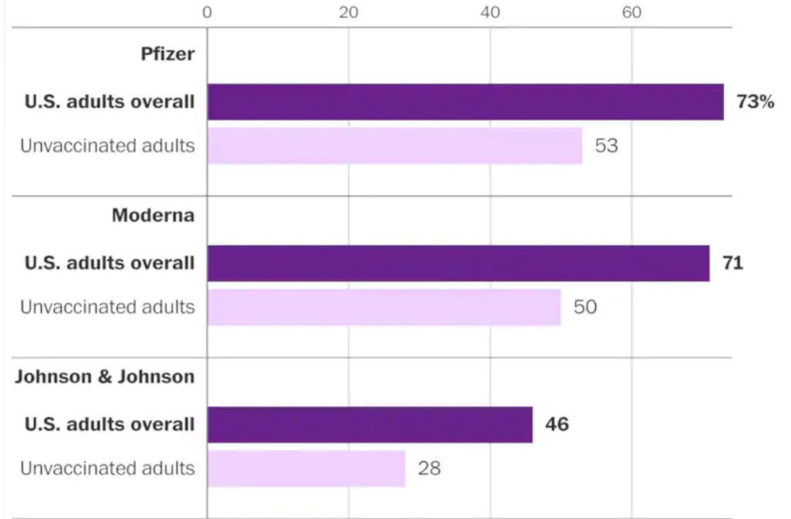
A rapid insights report was published on April 21, 2021, in response to the Recommendation to Pause Johnson & Johnson's Janssen COVID-19 Vaccine on April 13, 2021, with data from April 13.^b Below is an update from the rapid insights report with data through April 26, 2021.

On April 23, the Food and Drug Administration (FDA) and CDC lifted the recommended pause on the use of J&J/Janssen COVID-19 vaccine, giving states and jurisdictions support to continue administering it.^{54,55} Since the J&J/Janssen COVID-19 Vaccine is a single-dose option that only requires standard refrigeration, it can be delivered in settings where others cannot – making it ideal for rural and low-resource communities.⁵⁶ News media reported that the pause obstructed essential vaccination efforts, such as outreach to homebound seniors and people who are experiencing homelessness.^{57,58,59} According to state and local news media, the pause's most immediate cost was exacted on those with the fewest vaccine options.^{60,61,62,63}

According to polls, as of April 21, consumers reported reduced confidence in the safety of the J&J/Janssen vaccine and less than one-third of unvaccinated adults considered the J&J/Janssen vaccine to be safe.⁶⁴ However, such sentiments do not seem to have affected confidence in the two-dose mRNA vaccines; at least half of unvaccinated adults consider these vaccines safe, a proportion that has remained relatively stable over time.^{65,66} Polls also found that 72% of consumers reported having read or heard a lot about the recent J&J/Janssen vaccine pause, and 59% said it is reasonable for people to not want to get vaccinated in general following the pause.⁶⁷ Social media conversations about the J&J/Janssen vaccine spiked after the pause was announced, but then returned to baseline levels. Although vocal vaccine deniers leveraged the pause to promote broad distrust in vaccines, these narratives appeared to have mostly remained within the anti-vaccine community; however, some influencers speculate that the safety of the J&J/Janssen vaccine is uncertain, a contention that gained wide traction and amplification.⁶⁸

Johnson & Johnson vaccine seen as less safe than Pfizer or Moderna, overall and among unvaccinated adults

Q: Do you think the coronavirus vaccine made by _____ is very safe, somewhat safe, somewhat unsafe or very unsafe? (% of each saying they believe each is "very" or "somewhat" safe)



Note: "Unsafe" and "no opinion" not shown.

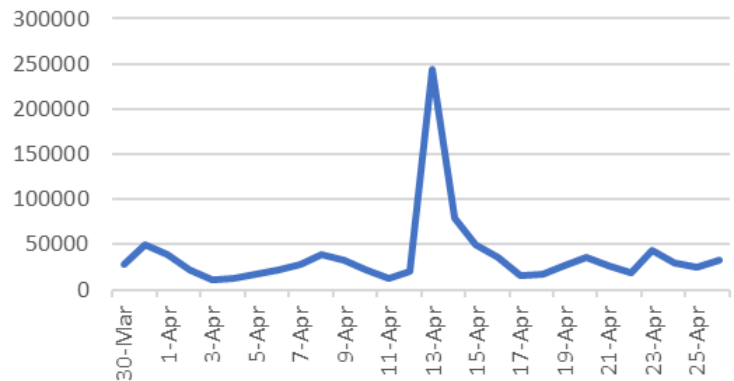
Source: April 18-21, 2021, Washington Post-ABC News poll of 1,007 with a margin of error of +/- 3.5 percentage points and 369 unvaccinated adults with an error margin of +/- 6 points.

EMILY GUSKIN/THE WASHINGTON POST

Source: https://www.washingtonpost.com/health/poll-johnson-johnson-vaccine/2021/04/26/a1085b26-a3ad-11eb-a774-7b47ceb36ee8_story.html

Aggregate Trend of Mention Activity for Johnson & Johnson's Janssen COVID-19 Vaccine

March 30, 2021 - April 26, 2021



Source: Meltwater

^b Insights Unit, Vaccinate with Confidence Team. *Rapid COVID-19 State of Vaccine Confidence Insights Report: Recommendation to Pause Use of Johnson & Johnson's Janssen COVID-19 Vaccine.* Atlanta, GA: Vaccine Task Force, Centers for Disease Control and Prevention; 2021.

Continuing and Evolving Themes

Themes below have been noted in previous reports and continue to undermine vaccine confidence. The information highlighted below focuses on what is new or different from previous reports. For additional context and previous recommendations on these themes see previous *Insights Reports*.^{c,d,e,f,g,h}

- **Reproductive health side effects.** Consumer concerns about the impact of vaccination on menstrual cycles are continuing to spread on social media.⁶⁹ Misinformation has begun to spread that effects on menstrual cycles is being seen not just among those who are vaccinated, but those who are around others who are vaccinated, feeding into a long-standing anti-vaccination trope of “viral shedding.”^{70,71} These claims even triggered one private school to set a policy that would prevent vaccinated teachers from interacting with students.⁷²

New ways to act:

- Continue to amplify messages about how COVID-19 vaccines work, de-bunking the myth of viral shedding.

- **Conservative consumers.** Polls continue to identify politically conservative consumers as the most likely to not intend to get a COVID-19 vaccine.^{73,74} Additionally, vaccine administration data analyzed by media organizations indicate that counties with a higher percentage of conservative residents have lower vaccination rates compared to liberal counties.⁷⁵ Current efforts to reach these communities through social mobilization efforts are also having trouble recruiting people and organizations from these conservative communities.⁷⁶

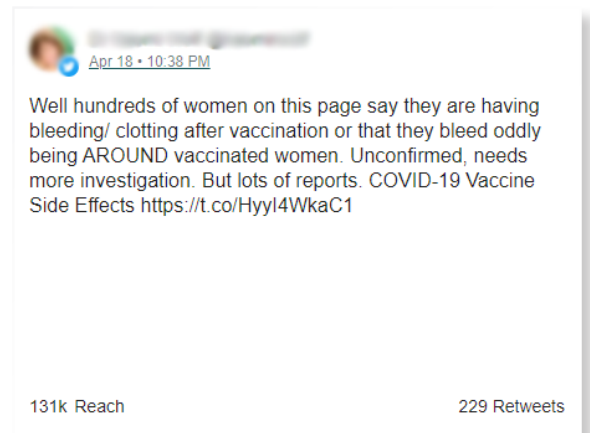
New ways to act:

- Support research to better understand the organizations and trusted messengers to improve outreach to conservative communities.
- Review current [COVID-19 Community Corps](#) membership and identify gaps in membership. Work with federal partners, states and jurisdictions, and partner organizations to organize recruitment efforts for new organizations and individuals from regions and demographics that are underrepresented.

- **Administration errors.** Media coverage has highlighted a few instances of vaccine administration errors in various regions across the country. Reports spanned from consumers being mistakenly given saline,⁷⁷ inmates at a prison given overdoses,⁷⁸ and improper vaccine storage.⁷⁹ Reports such as these can reduce consumer confidence in vaccinators.

New ways to act:

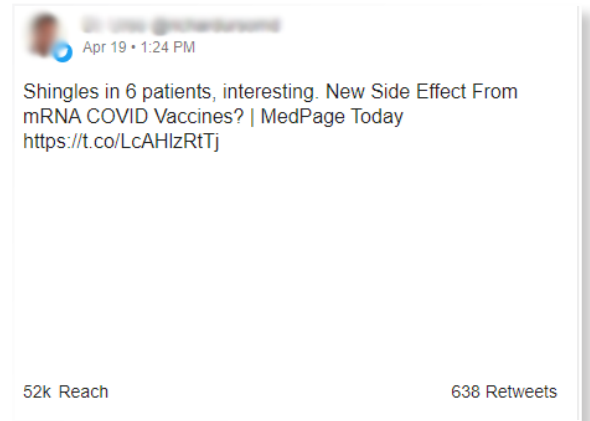
- Continue to amplify messages for vaccinators about proper storage and handling and administration training tools.



c Insights Unit, *Vaccinate with Confidence Team. State of vaccine confidence report: Report 1.* Atlanta, GA: Vaccine Task Force, Centers for Disease Control and Prevention; 2021.
 d Insights Unit, *Vaccinate with Confidence Team. State of vaccine confidence report: Report 2.* Atlanta, GA: Vaccine Task Force, Centers for Disease Control and Prevention; 2021.
 e Insights Unit, *Vaccinate with Confidence Team. State of vaccine confidence report: Report 3.* Atlanta, GA: Vaccine Task Force, Centers for Disease Control and Prevention; 2021.
 f Insights Unit, *Vaccinate with Confidence Team. State of vaccine confidence report: Report 4.* Atlanta, GA: Vaccine Task Force, Centers for Disease Control and Prevention; 2021.
 g Insights Unit, *Vaccinate with Confidence Team. State of vaccine confidence report: Report 5.* Atlanta, GA: Vaccine Task Force, Centers for Disease Control and Prevention; 2021.
 h Insights Unit, *Vaccinate with Confidence Team. State of vaccine confidence report: Report 6.* Atlanta, GA: Vaccine Task Force, Centers for Disease Control and Prevention; 2021.

Continuing and Evolving Themes (cont.)

- **Side effects.** During this reporting period, 14% of calls to CDC-INFO on COVID-19 vaccines were about side effects for all three authorized vaccines. Misinformation spread on social media during this period based on a recent study⁸⁰ that claimed mRNA COVID-19 vaccines are causing herpes or shingles.⁸¹ However, the misinformation was quickly fact-checked.^{82,83}
- **Military refusals.** Media coverage about low vaccination rates among military personnel continues,^{84,85} with additional conversations on social media circulating that highlight personal stories as to why they chose not to be vaccinated.⁸⁶ Current policy does not allow vaccines authorized under an EUA to be mandated, but some lawmakers are taking action to try and change this.⁸⁷
- **Essential workers.** Recent polls report that 20% of essential workers still do not plan to get vaccinated and oppose workplace mandates.⁸⁸ Reports and conversations online are circulating with concerns related to some healthcare facilities beginning to require vaccination for employment, with many saying it is not legal until a vaccine receives full approval.^{89,90,91} Push-back and petitions have emerged.⁹²



Appendix: Inputs and Sources

Type	Input	Cadence	Sources	Tactics for Utilization
Mixed Methods	Communication Surveillance Report	Daily, 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
	Tanaq Social Listening +Media Monitoring Report	Weekly	<ul style="list-style-type: none"> Meltwater Muck Rack Sprout Social First Draft Stronger Native platform searches 	<ul style="list-style-type: none"> Trending topics Demographic and geographic conversation monitoring
	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
Social Media Listening	OADC Channel COVID-19 Post metrics	Weekly	<ul style="list-style-type: none"> Sprout Social Native OADC account analytics 	<ul style="list-style-type: none"> Analyze # of posts, topics Success of messages, # of impressions, reach, # engagements
	OADC Channel Comment Analysis	Daily, weekdays	<ul style="list-style-type: none"> Native platform searches 	<ul style="list-style-type: none"> Sentiment analysis Identify message gaps/voids
	CrowdTangle content insights report	Biweekly	<ul style="list-style-type: none"> Facebook 	<ul style="list-style-type: none"> Top pages (voices), groups General trends/sentiment analysis News analysis through posts
	FEMA Social Listening Report	Daily	<ul style="list-style-type: none"> Hootsuite Brandwatch CrowdTangle Meltwater 	<ul style="list-style-type: none"> Trends/sentiment analysis National and global news analysis
Direct Reports	CDC-INFO Metrics	Weekly, Mondays	<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, Mondays	<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, Wednesdays	<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	Poll Review	Weekly, Mondays	<ul style="list-style-type: none"> Harris Poll, PEW research, Gallup Poll, KFF 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, Mondays	<ul style="list-style-type: none"> PubMed, LitCovid, ProQuest Central New data related to vaccine hesitancy 	<ul style="list-style-type: none"> Identify current vaccination intention Identify barriers to vaccination