

# COVID-19 State of Vaccine Confidence Insights Report

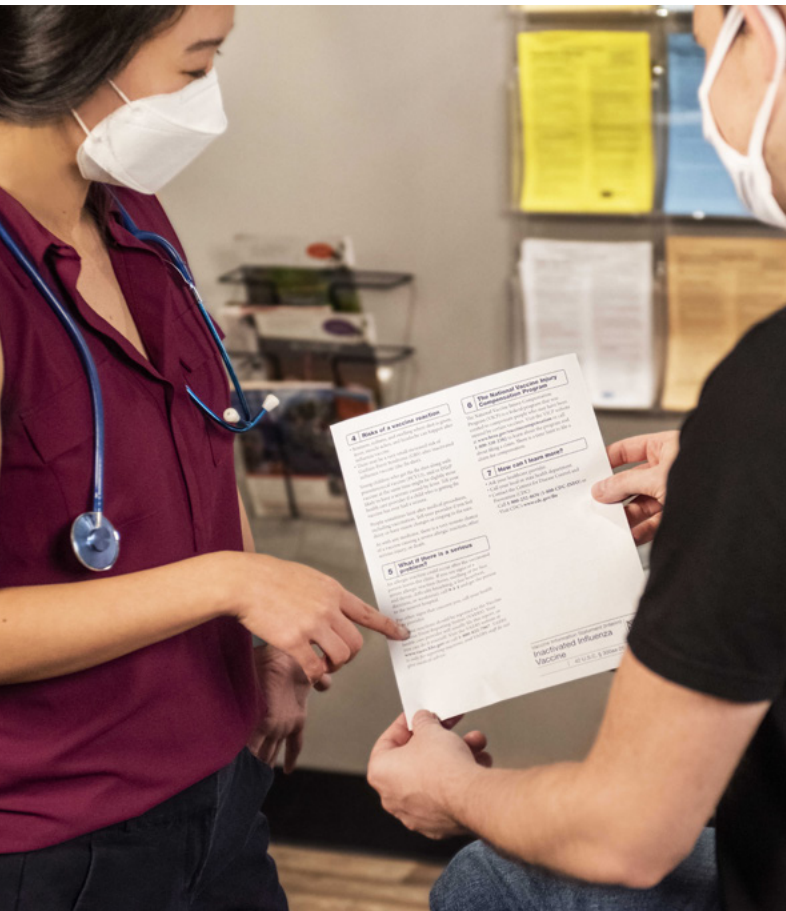
Report 21 | January 26, 2022 | Date Range: November 30 – December 20, 2021



## Summary

**Findings.** The major theme for this report is that some consumers express distrust for the authorization of COVID-19 vaccines after CDC updated its recommendations with a preference for the Pfizer-BioNTech and Moderna vaccines over the Johnson & Johnson's Janssen COVID-19 Vaccine. A second theme is that consumers and news outlets continue to have questions and concerns about the SARS-CoV-2 Omicron variant. Third, consumers and parents continue to discuss concerns surrounding COVID-19 vaccines for children. The final finding from this report is that consumers have questions and concerns about the safety and effectiveness of the COVID-19 booster dose, mixing vaccine brands and types, and the potential need for additional booster doses.

**Ways to take action.** Federal, state, and local partners should continue to work together to explain the rationale for updated guidance, respond to gaps in information, and confront mis/disinformation with evidence-based messaging. These efforts aim to increase confidence in COVID-19 vaccines and expand vaccine uptake more broadly. Create, disseminate, and amplify messages, especially on social media, that explain why the Pfizer-BioNTech or Moderna COVID-19 vaccines are preferred over the J&J/Janssen COVID-19 vaccine in most cases, including what has changed since the Janssen COVID-19 vaccine pause lifted on April 23, 2021.



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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 influencing COVID-19 vaccine hesitancy and uptake. Themes are characterized by the level and type of threat to vaccine confidence, degree of spread, and directionality. 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, 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 comprehensively cover all content related to the highlighted themes.

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

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

## Major Theme<sup>a</sup>

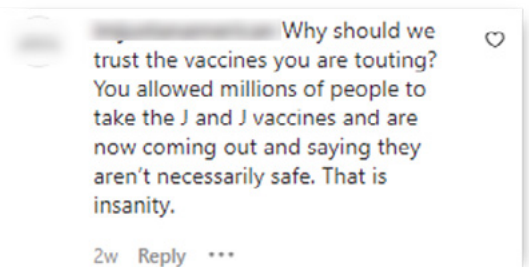


### Consumers express distrust for the authorization of COVID-19 vaccines after CDC endorsed a preference for the Pfizer-BioNTech and Moderna vaccines.

On December 16, 2021, the CDC adopted vaccination recommendations made by the Advisory Committee on Immunization Practices (ACIP) to prevent COVID-19, expressing a clinical preference for individuals to receive an mRNA COVID-19 vaccine over the Janssen COVID-19 vaccine.<sup>1</sup> Social media and online searches about Janssen COVID-19 vaccine and blood clots increased after the announcement.<sup>b</sup> This can potentially impact vaccine confidence and uptake as it may imply to people that already have concerns that the vaccination authorization system is flawed, and the COVID-19 vaccines are not safe.

#### Perceptions, Concerns, and Threats to Vaccine Confidence

- Some social media users stated that the change in guidance proves their safety concerns about the vaccines are valid.<sup>2,3,4</sup>
- Online, people claimed this change in guidance is evidence that the vaccination authorization system is too flawed to trust.<sup>5,6,7,8</sup>
- Individuals expressed concern about getting blood clots after receiving Janssen COVID-19 vaccine.<sup>9,10,11,12</sup>
- Some people believed this change is evidence that pharmaceutical companies have too much influence in the vaccine authorization process.<sup>13,14,15</sup>



#### Content Gaps and Information Voids

- Does this change in preference show that other COVID-19 vaccines might be dangerous?
  - The ACIP reaffirmed that the benefits of COVID-19 vaccination outweighed risks. However, mRNA COVID-19 vaccines are generally safer than Janssen COVID-19 vaccine and thus mRNA vaccines are preferred. COVID-19 vaccine severe adverse events are rare, but severe adverse events from mRNA vaccines are even more rare than from the Janssen vaccine.<sup>16</sup>
- Do pharmaceutical companies have too much influence over government health policy?
  - No, the ACIP is an independent advisory committee.<sup>17</sup>
- Why were the data on blood clots not considered during the initial vaccine authorization process?
  - As new information became available regarding the Janssen COVID-19 vaccine side effect from blood clots, vaccine safety was reassessed and the clinical preference for mRNA vaccines was made. However, it was determined that for most populations, the benefits of the vaccine outweighed the risk of rare adverse events.<sup>18</sup>
- Why did the CDC not end the recommendation for using Janssen COVID-19 vaccine instead of preferring the other COVID-19 vaccines on December 16, 2021?
  - ACIP's unanimous recommendation followed a robust discussion of the latest evidence on vaccine effectiveness, the epidemiology of the pandemic, vaccine safety, and rare adverse events, and consideration of the U.S. vaccine supply. ACIP reaffirmed that receiving any COVID-19 vaccine that is authorized or approved for use in the United States is better than being unvaccinated.<sup>19</sup>

#### Misinformation Themes

- NIH has joint ownership of the Moderna vaccine and helped orchestrate the pandemic for profit.<sup>20,21</sup>
- Johnson & Johnson was bribing doctors and politicians to hide the risk of serious vaccine adverse events.<sup>22,23</sup>

#### Ways to Take Action

- Create, disseminate, and amplify messages, especially on social media, that explain why the Pfizer-BioNTech and Moderna COVID-19 vaccines are preferred over the Janssen COVID-19 vaccine. Messages should include changes that have occurred since the Janssen COVID-19 vaccine pause lifted on April 23, 2021.
- Create, disseminate, and amplify messages that directly address those who have already received the Janssen COVID-19 vaccine. Messages should address uncertainty and provide information on what they should do next.
- Continue to amplify messages and work with trusted messengers to promote that primary series and booster shot from mRNA COVID-19 vaccine doses are the best method of protection against severe COVID-19 infections, hospitalizations, and deaths.
- Amplify messages about the safety of mRNA COVID-19 vaccines, highlighting the low number of adverse events following a high number of administered vaccines and vigilant safety monitoring.
- Amplify messages that promote vaccination benefits for all eligible people and show vaccination effectiveness in reducing hospitalizations and deaths.

<sup>a</sup>Citations in this report are illustrative examples and are not the total number of instances of the corresponding themes.

<sup>b</sup>Google Trends

## Continuing and Evolving Themes

The 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](#).



### Consumers and news outlets have questions and concerns about the SARS-CoV-2 Omicron variant.

On December 10, 2021, the CDC published the [COVID-19 State of Vaccine Confidence Insights SARS-CoV-2 Omicron Variant Rapid Report](#). Online conversations surrounding the SARS-CoV-2 Omicron variant increased by 424% during the reporting period November 30 – December 20, 2021.<sup>c</sup>

#### **Perceptions, Concerns, and Threats to Vaccine Confidence**

- News outlets and social media users debated the symptoms associated with the Omicron variant and stressed the importance of vaccination for those not yet vaccinated.<sup>d,24,25</sup>
- Online conversations and public sentiments around the Omicron variant included feelings of pandemic fatigue, hopelessness, and resignation,<sup>26,27,28,29,30</sup> distrust in public institutions and pharmaceutical companies,<sup>d,31,32</sup> and assertions that COVID-19 vaccines are ineffective or cause harm.<sup>d,33,34</sup>

#### **Content Gaps and Information Voids**

- Are the vaccines effective against the Omicron variant given the frequency of breakthrough cases?<sup>e,d,35,36,37</sup>
  - Current vaccines are expected to protect against severe illness, hospitalization, and death due to infection with the Omicron variant.<sup>38</sup>
- Will people have to get a booster to prevent the Omicron infection?<sup>e,39</sup>
  - Everyone 12 years and older are recommended to get a booster dose.<sup>40</sup>

#### **Misinformation Themes**

- The emergence of new variants will lead to an endless production of variant-specific boosters and financial gain for pharmaceutical companies.<sup>41,42,43,44</sup>
- Recent travel bans and mitigation strategies were an “overreaction” from world leaders because the Omicron does not pose a significant threat.<sup>45,46,47</sup>
- Only those who are vaccinated have been infected with the Omicron variant.<sup>48,49,50</sup>

#### **Ways to Take Action**

- Amplify messages that promote vaccination benefits for all eligible people and show vaccination effectiveness in reducing hospitalizations and deaths.
- Disseminate current data on the Omicron variant and the continued need for vaccination with primary series if unvaccinated, and booster dose.
- Promote trust in public institutions by providing clear and defined recommendations for risk mitigation.

<sup>c</sup>Meltwater

<sup>d</sup>Google Trends

<sup>e</sup>CDC-INFO

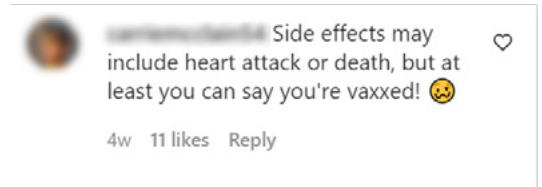


## Consumers and parents continue to discuss concerns surrounding COVID-19 vaccines for children.

The Food and Drug Administration (FDA) authorized the Pfizer-BioNTech COVID-19 vaccine for emergency use in children ages 5—11 years on October 29, 2021.<sup>51</sup> With this EUA consumers, specifically parents, continue to question the need and safety of COVID-19 vaccinations in children. A perceived higher risk of adverse events relative to benefits of vaccination or lack of concern about the severity of COVID-19 can impact vaccine confidence as justification for not having children vaccinated.

### Perceptions, Concerns, and Threat to Vaccine Confidence

- Consumers expressed apprehension about the safety, effectiveness and possible side effects of the COVID-19 vaccine in children, including but not limited to heart issues (myocarditis), death, and unknown long-term side effects.<sup>f,52,53,54</sup>
- Consumers expressed the belief that children do not need to be vaccinated due to having milder symptoms, stronger immunity, and fewer deaths.<sup>55,56,57</sup>



### Content Gaps and Information Voids

- Why is the COVID-19 vaccine necessary for children younger than 18 years if they only experience mild symptoms?
  - Children infected with SARS-CoV-2, the virus that causes COVID-19, can develop serious complications. COVID-19 illness results in loss of in-person learning and impacts other opportunities for children to learn and socialize, and children can spread the illness to others, including those who are immunocompromised or who could otherwise have severe illness.<sup>58</sup>
- What are the booster vaccine guidelines for children younger than 12 years?
  - Booster doses not approved for children ages 5—11 years. Booster doses are recommended for all children 12 years and older.
  - Children ages 5—11 years who are immunocompromised are recommended to receive an additional dose at least 28 days after the second dose to complete the primary series.<sup>59</sup>
- After receiving a COVID-19 primary vaccine series, when do I get my booster dose?
  - After completing a primary series with an mRNA vaccine, a booster is recommended at least 5 months later. After the Janssen COVID-19 vaccine single dose, a booster is recommended at least 2 months later.<sup>60</sup>
- Why is there a lack of data on the long-term effects of COVID-19 vaccines on children?
  - Serious side effects that could cause long-term health problems are extremely unlikely following COVID-19 vaccinations. Rare cases of myocarditis have been reported after vaccination, but most cases are mild and recover. Vaccine safety monitoring is ongoing for all vaccines, including COVID-19 vaccines.<sup>61</sup>
- When will vaccines be authorized or approved for children 4 years and younger?
  - Currently, children 4 years and younger are not eligible for a COVID-19 vaccine in the United States; however, clinical trials are underway. The best way currently to protect children 4 years and younger is to vaccinate everyone ages 5 years and older who are around them and to follow other CDC guidance for preventing COVID-19 transmission, including masking.<sup>62,63</sup>

### Misinformation Themes

- Children do not need the COVID-19 vaccine because they are at low risk of death.<sup>64,65,66</sup>
- Deaths are more likely to occur from the COVID-19 vaccine than from contracting the SARS-CoV-2.<sup>67,68,69</sup>
- Pediatric vaccination is an experiment on children who are not at risk for COVID-19.<sup>70,71</sup>

### Ways to Take Action

- Encourage parents, caregivers, and pediatric healthcare providers to engage in conversations that address vaccine safety concerns by discussing potential side effects, vaccine benefits, and low rate of adverse events.
- Develop and disseminate messages and talking points for pediatric healthcare providers to assist them in their conversations with parents and caregivers.
- Create messages that discuss the risk and benefits of the COVID-19 vaccine and disseminate them through various media outlets to support the risk reduction potential associated with COVID-19 vaccinations.
- Increase messages highlighting how the risk for severe COVID-19 illness and hospitalizations offset the possibility of an adverse event from the vaccine.
- Promote the benefits of children being vaccinated by amplifying the safety and efficacy of the COVID-19 vaccine.



## Consumers have questions and concerns about the safety and effectiveness of the COVID-19 booster doses, mixing vaccine brands and types, and the potential need for additional booster doses.

On December 9, 2021, the CDC recommended that people ages 16—17 years be considered for COVID-19 vaccine booster dose vaccination, following authorization to this age group by the Food and Drug Administration (FDA).<sup>72</sup> On January 3, 2022, the CDC recommended boosters for all children ages 12—17 years.<sup>73</sup> The CDC updated its guidelines to reflect a shorter time interval from 6 to 5 months for those waiting to receive the booster dose of the Pfizer-BioNTech and Moderna COVID-19 vaccines. The CDC also recommended that children ages 5—11 who are immunocompromised receive an additional dose 28 days after their 2nd COVID-19 vaccine dose.<sup>74</sup>

Inconsistent and confusing messaging surrounding eligibility and waiting period for the booster doses and additional doses for immunocompromised persons may adversely affect vaccine confidence.<sup>75</sup>

### **Perceptions, Concerns, and Threats to Vaccine Confidence**

- Citing the recent surge in the Omicron variant cases, some universities and the NFL required staff, students, players and coaches to get the COVID-19 vaccine booster doses.<sup>76,77,78</sup>
- Health experts called for a revision of the definition for “fully vaccinated” to include a booster dose.<sup>79,80</sup> However, the CDC has updated language for up-to-date on vaccinations to take into account the recommendations for booster doses.

### **Content Gaps and Information Voids:**

- Will children need a COVID-19 vaccine booster?
  - At this time, CDC recommends that all people ages 12 years and older should receive a booster dose of COVID-19 vaccine.<sup>81</sup>
- Will there be a 4th COVID-19 booster dose?
  - At this time, CDC recommends that all people ages 12 years and older should receive a single booster dose of COVID-19 vaccine.<sup>82</sup>
- If I am experiencing cold symptoms, can I get the booster dose?
  - Health experts say that it is safe to still get a booster dose. However, people should continue to follow isolation and quarantine measures to avoid exposing healthcare workers to COVID-19 if you might be infected with SARS-CoV-2.<sup>83</sup>
- Can I get the COVID-19 vaccine and booster during pregnancy?
  - It is safe to receive vaccinations before/during/after pregnancy, including while breastfeeding.<sup>84</sup>
- Can I get a booster dose that is different from my initial COVID-19 vaccine series especially as it relates to COVID-19 vaccines received in other countries that are not FDA approved or authorized?
  - Yes. Regardless of the primary dose(s), the Pfizer-BioNTech or Moderna vaccines are preferred for booster doses as well as for primary series in most circumstances.<sup>85</sup>

### **Misinformation Themes**

- The government is enforcing vaccine and booster dose requirements to enrich pharmaceutical companies.<sup>86</sup>
- Zinc helps to enhance the immune system against COVID-19 infection.<sup>87</sup>
- The vaccine mandate is part of a bigger plan to take away people’s freedom and liberty.<sup>88</sup>

### **Ways to Take Action**

- Disseminate clear messages about the official guidance for COVID-19 booster dose recommendations and time intervals.
- Ensure COVID-19 booster vaccine official guidance is easily accessible on websites.
- Continue to build trust in COVID-19 vaccine safety/effectiveness, healthcare providers, healthcare system and public/governmental institutions
- Provide trainings and educational interventions to healthcare workers to increase knowledge, expertise, and confidence to disseminate messages that are tailored to communities’ culture.

## Appendix 1: Inputs and Sources

Type	Input	Cadence	Sources	Tactics for Utilization
<b>Social Media Listening &amp; Media Monitoring</b>	<a href="#">Communication Surveillance Report</a>	Daily on weekdays	<ul style="list-style-type: none"> <li>Google news</li> <li>Meltwater</li> <li>CrowdTangle</li> <li>Native platform searches</li> </ul>	<ul style="list-style-type: none"> <li>Share of voice topic analysis to identify themes</li> <li>Emerging topics</li> </ul>
	<a href="#">Meltwater</a>	Daily	<ul style="list-style-type: none"> <li>Facebook, Twitter, Instagram</li> <li>Blogs</li> <li>News media</li> <li>Online forums</li> </ul>	<ul style="list-style-type: none"> <li>Share of voice topic analysis</li> <li>Emerging theme topics</li> <li>Identify high reach/velocity topics</li> </ul>
	<a href="#">OADC (Office of the Associate Director of Communication) Channel COVID-19 Post metrics</a>	Weekly	<ul style="list-style-type: none"> <li>Sprout Social</li> <li>Native OADC account analytics</li> </ul>	<ul style="list-style-type: none"> <li>Analyze # of posts, topics</li> <li>Success of messages, # of impressions, reach, # engagements</li> </ul>
	<a href="#">OADC Channel Comment Analysis</a>	Daily on weekdays	<ul style="list-style-type: none"> <li>Native platform searches</li> </ul>	<ul style="list-style-type: none"> <li>Sentiment analysis</li> <li>Identify message gaps/voids</li> </ul>
<b>Direct Reports</b>	<a href="#">CDC-INFO Metrics</a>	Weekly	<ul style="list-style-type: none"> <li>CDC-INFO inquiry line list</li> <li>Prepared response (PR) usage report</li> </ul>	<ul style="list-style-type: none"> <li>Cross-compare PR usage with inquiry theme analysis</li> <li>Sentiment analysis</li> <li>Identify information gaps/voids</li> </ul>
	<a href="#">VTF Media Requests</a>	Weekly	<ul style="list-style-type: none"> <li>Media request line list</li> </ul>	<ul style="list-style-type: none"> <li>Leading indicator for news coverage</li> <li>Identify information gaps/voids</li> </ul>
	<a href="#">Web Metrics</a>	Weekly	<ul style="list-style-type: none"> <li>Top pages</li> <li>Google search queries</li> <li>Top FAQs</li> <li>Referring domains</li> </ul>	<ul style="list-style-type: none"> <li>Identify information gaps/voids,</li> <li>Identify keywords/search terms, changes in web traffic</li> </ul>
<b>Research</b>	<a href="#">Poll Review</a>	Weekly	<ul style="list-style-type: none"> <li>Harris Poll, PEW research, Gallup Poll, KFF</li> <li>New data related to vaccine hesitancy</li> </ul>	<ul style="list-style-type: none"> <li>Identify socio-behavior indicators related to motivation and intention to vaccinate</li> </ul>
	<a href="#">Literature Review</a>	Weekly	<ul style="list-style-type: none"> <li>PubMed, LitCovid, ProQuest Central, Altmetric</li> <li>New data related to vaccine hesitancy</li> </ul>	<ul style="list-style-type: none"> <li>Identify current vaccination intention</li> <li>Identify barriers to vaccination</li> </ul>
<b>Third Party Reports</b>	<a href="#">Tanaq Social Listening +Media Monitoring Report</a>	Weekly	<ul style="list-style-type: none"> <li>Meltwater</li> <li>Sprout Social</li> <li>First Draft</li> <li>Native platform searches</li> </ul>	<ul style="list-style-type: none"> <li>Trending topics</li> <li>Demographic and geographic conversation monitoring</li> </ul>
	<a href="#">CrowdTangle content insights report</a>	Biweekly	<ul style="list-style-type: none"> <li>Facebook</li> </ul>	<ul style="list-style-type: none"> <li>Top pages (voices), groups</li> <li>General trends/sentiment analysis</li> <li>News analysis through posts</li> </ul>
	<a href="#">First Draft News Vaccine Misinformation Insights Report</a>	Monthly	<ul style="list-style-type: none"> <li>Proprietary methods</li> </ul>	<ul style="list-style-type: none"> <li>Media trends analysis</li> <li>Emerging threats and data deficits</li> <li>Online vaccine narratives</li> </ul>
	<a href="#">Project VCTR</a>	Weekly	<ul style="list-style-type: none"> <li>Proprietary methods</li> </ul>	<ul style="list-style-type: none"> <li>National and regional trends in negative attitudes toward vaccination</li> <li>Conversations around Legislation</li> </ul>
	<a href="#">Virality Project</a>	Weekly	<ul style="list-style-type: none"> <li>Proprietary methods</li> </ul>	<ul style="list-style-type: none"> <li>Mis- and disinformation trends related to COVID-19 vaccine</li> </ul>