**Summary**

**Findings.** Consumers expressed concern about the Delta variant of the virus that causes COVID-19 potentially causing more severe illness. While this was a motivating factor for some consumers to get vaccinated, others felt the variants were a sign of the virus becoming endemic, decreasing the perceived importance of vaccination. As the United States continues to return to prepandemic-style life, some consumers expressed concern that employer- or education-based vaccination requirements and proof-of-vaccination systems to attend large events or travel infringed on their individual liberties. Consumers were divided, with some claiming that those who are vaccinated do not need to worry about the vaccination status of others. Finally, concerns about myocarditis and pericarditis following mRNA COVID-19 vaccination were widespread. More information about consumers’ perceptions and opinions regarding myocarditis and pericarditis following vaccination can be reviewed in the Rapid COVID-19 State of Vaccine Confidence Insights Report, released on June 29, 2021.

**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. Messages should be developed and disseminated to provide known information about the effectiveness of available COVID-19 vaccines against emerging variants, as well as the role vaccination plays in reducing the spread and emergence of new variant viruses. Policies regarding travel and large gatherings should be evaluated to identify opportunities to reduce requirements for fully vaccinated people that could motivate consumers within the moveable middle to get vaccinated.

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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

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<thead>
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<th>High risk</th>
<th>Moderate risk</th>
<th>Low risk</th>
<th>Positive sentiment</th>
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<td>• Concerning, but low risk to vaccine confidence</td>
<td>• Could increase vaccine confidence, intent, or motivation</td>
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<td></td>
<td>• Wide reach, pervasive</td>
<td>• Moderate reach, modest dissemination</td>
<td>• Limited reach, limited dissemination</td>
<td>• Variable reach and dissemination</td>
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How has this theme/idea changed over time (since last report or over the course of multiple reports)?

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<th>Stable</th>
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<tr>
<td></td>
<td>• Information spreading rapidly</td>
<td>• Information remaining constant at prior level</td>
<td>• Information is not gaining further traction and there has been no indication of additional activity</td>
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Major Themes

Consumers are confused and concerned about the effectiveness of currently available vaccines against the Delta variant.

News coverage of the Delta variant of the virus that causes COVID-19 steadily increased in June 2021. While coverage in early June focused mostly on cases in the United Kingdom and other countries across the globe, coverage of the Delta variant rapidly spreading in the United States became more prevalent towards the end of the reporting period. Health authorities attempted to leverage the Delta variant as a motivator for people to get vaccinated by talking to news media outlets, with prominent leaders noting that vaccination is key to preventing the spread of the Delta variant in the United States. Online searches for Delta variant-related terms increased drastically, but no webpage from a U.S. health authority commonly surfaced in the top 10 search results.

Alongside the increase in news coverage and online searches, conversations among consumers also rose, with a 223% increase in mentions on social media during the reporting period. Consumers expressed concern about the potential severity of Delta variant COVID-19 cases, especially for those who are unvaccinated. Vaccinated consumers noted that they could still be vulnerable to the Delta variant with some highlighting cases caused by the Delta variant among fully vaccinated people. Consumer concerns were further fueled by news media and consumers posting a wide range of estimates about the effectiveness of currently available vaccines against the Delta variant, leading to some people asking if they should be re-vaccinated with a different vaccine. Among consumers wanting to "wait and see" before getting vaccinated, 6 in 10 indicated that they were very or somewhat worried about the effectiveness of currently available vaccines against variants, according to one recent poll.

Some consumers indicated that they would not seek vaccination, as they perceived the Delta variant as evidence that the virus is becoming endemic like influenza virus.

These concerns about vaccine effectiveness against variant viruses led some consumers to wonder if and when booster doses would be needed, and if they received Johnson & Johnson’s Janssen COVID-19 Vaccine, whether they needed a dose of an mRNA vaccine. The concerns caused some to ask if mitigation measures previously removed for fully vaccinated people should be reinstated to slow the spread of the Delta variant and made some feel like the United States may never return to normal. News coverage and consumer conversations focused on the potential for the spread of the Delta variant to outpace vaccination coverage. At the same time, vocal vaccine deniers claimed that vaccines themselves have allowed variants to spread and that vaccination could actually reduce the immune system’s ability to fight off infection. They also claimed that natural immunity from previously having COVID-19 or that getting COVID-19 if not already naturally immune is safer than getting vaccinated.

Ways to act:

- Expand web content and create clear, consistent messaging about the effectiveness of COVID-19 vaccines against variants of concern. Communicate often about what is known and unknown about the Delta variant and other variants of concern and about the effectiveness of currently available vaccines.
- Develop and disseminate messaging about how to protect people who cannot be vaccinated, especially children less than 12 years old and people with compromised immune systems.
- Develop and disseminate messages about how variant viruses evolve and the role that vaccination plays in slowing the spread and emergence of new variants. Provide guidance and talking points to healthcare professionals to discuss this topic with their patients to motivate them to get vaccinated.

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Google Trends
SEMrush
Meltwater
CDC-INFO
Some consumers feel that vaccine mandates and proof-of-vaccination systems infringe on individual liberties.

Tension continues between vaccinated and unvaccinated consumers regarding vaccine mandates and proof-of-vaccination systems. Several legislative actions were taken during the reporting period to prohibit or ban mask, testing, or vaccination mandates for employers and businesses, as well as within the education sector. However, reports of employers requiring vaccination, particularly in the healthcare and travel industries, continue to emerge, with one high-profile lawsuit against a vaccine requirement being dismissed in court. These reports caused some consumers to wonder about the legality of employers requiring vaccination and whether employers and businesses could request that people disclose their vaccination status, with online searches for “vaccine mandate” increasing by 22% between May and June 2021. Public opinion seems split on the issue. One poll of 1,027 people found that 52% of respondents supported requiring COVID-19 vaccination in the workplace. Another poll of 500 people found that the majority of respondents believed that employers had the right to request proof of vaccination, but they did not think employers should be able to fire employees if they opted not to get vaccinated. The presence and absence of vaccine mandates within education settings has also become a point of contention. Reports of protests and class-action lawsuits against vaccine mandates in education settings surfaced alongside calls for institutions to reverse their stance on not requiring vaccination or lauding the decision to require vaccination for all students and employees.

Vaccine requirements for travel or to attend large events continue to be some of the top remaining motivators for people wanting to “wait and see” before getting vaccinated according to one poll. News coverage increased about how vaccination status is used in different settings to publicly identify and deny access to people who are unvaccinated or cannot produce a recent negative COVID-19 test. Some pro-vaccine consumers felt policies requiring vaccination or disclosure of vaccination status would not be feasible nationally without a standard proof-of-vaccination system. However, other consumers expressed concerns that proof-of-vaccination systems were a means to “segregate” people and were a violation of privacy. One poll of 868 people reported that a slim majority (55%) of respondents felt that unvaccinated and vaccinated people should have the same rights. This aligned with consumer comments online stating that people who are vaccinated should not care about the vaccination status of others, and that unvaccinated people are only a danger to themselves. Further, more than half of people who identified as unvaccinated in one recent poll reported feeling that additional people do not need to be vaccinated because the rate of new COVID-19 cases is low.

Ways to act:
- Continue to disseminate messages about the benefits of vaccination, including how vaccination protects the person who is vaccinated as well as others around them. Consider highlighting case data comparing the number of current cases of COVID-19 among unvaccinated and vaccinated people.
- Evaluate policies related to travel and large gatherings for vaccinated individuals. Where possible, consider allowing individuals with proof of being fully vaccinated to forgo testing, masking, or quarantine requirements to help motivate vaccination intent among those who are not yet vaccinated.
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.

- **Adverse events.** Claims that COVID-19 vaccines have caused a large number of deaths continue to be reported by some news outlets and amplified by vocal vaccine deniers using data from Vaccine Adverse Event Reporting System (VAERS) as evidence. Some consumers continued to amplify these claims of “mass death” following vaccination throughout social media.

  **New ways to act:**
  - Continue to develop and disseminate messages about what VAERS is and how it works. Include messaging about what is known about the incidence rate of adverse events and highlight how many doses of vaccine have been safely administered to people across the United States.

- **Concerns from people with compromised immune systems.** A new study by Johns Hopkins looking at vaccine effectiveness in transplant patients found that a third dose of vaccine can boost protection against COVID-19. This has caused some immunocompromised consumers to seek guidance regarding whether they should get a third dose, and if so what the timing would be.

- **Origin of virus that causes COVID-19.** News reports increased on a new analysis that found that “rare and sporadic cases” were likely in the United States as early as December 2019, giving further credence to the belief held by many consumers that the virus was made in a laboratory and could have been released intentionally.
## Appendix: Inputs and Sources

<table>
<thead>
<tr>
<th>Type</th>
<th>Input</th>
<th>Cadence</th>
<th>Sources</th>
<th>Tactics for Utilization</th>
</tr>
</thead>
</table>
| Social Media Listening & Media Monitoring | Communication Surveillance Report   | Daily on weekdays     | • Google news  
• Meltwater  
• CrowdTangle  
• Native platform searches | • Share of voice topic analysis to identify themes  
• Emerging topics |
|                             | Meltwater                                | Daily                 | • Facebook, Twitter, Instagram  
• Blogs  
• News media  
• Online forums | • Share of voice topic analysis  
• Emerging theme topics  
• Identify high reach/velocity topics |
|                             | OADC Channel COVID-19 Post metrics       | Weekly                | • Sprout Social  
• Native OADC account analytics | • Analyze # of posts, topics  
• Success of messages, # of impressions, reach, # engagements |
|                             | OADC Channel Comment Analysis            | Daily on weekdays     | • Native platform searches | • Sentiment analysis  
• Identify message gaps/voids |
| Direct Reports              | CDC-INFO Metrics                         | Weekly                | • CDC-INFO inquiry line list  
• Prepared response (PR) usage report | • Cross-compare PR usage with inquiry theme analysis  
• Sentiment analysis  
• Identify information gaps/voids |
|                             | VTF Media Requests                       | Weekly                | • Media request line list | • Leading indicator for news coverage  
• Identify information gaps/voids |
|                             | Web Metrics                              | Weekly                | • Top pages  
• Google search queries  
• Top FAQs  
• Referring domains | • Identify information gaps/voids  
• Identify keywords/search terms, changes in web traffic |
| Research                    | Poll Review                              | Weekly                | • Harris Poll, PEW research, Gallup Poll, KFF  
• New data related to vaccine hesitancy | • Identify socio-behavior indicators related to motivation and intention to vaccinate |
|                             | Literature Review                        | Weekly                | • PubMed, LitCovid, ProQuest Central  
• New data related to vaccine hesitancy | • Identify current vaccination intention  
• Identify barriers to vaccination |
| Third Party Reports         | Tanaq Social Listening + Media Monitoring Report | Weekly       | • Meltwater  
• Sprout Social  
• First Draft  
• Native platform searches | • Trending topics  
• Demographic and geographic conversation monitoring |
|                             | CrowdTangle content insights report      | Biweekly              | • Facebook | • Top pages (voices), groups  
• General trends/sentiment analysis  
• News analysis through posts |
|                             | FEMA Social Listening Report             | Daily                 | • Hootsuite  
• Brandwatch  
• CrowdTangle  
• Meltwater | • Trends/sentiment analysis  
• National and global news analysis |
|                             | First Draft News Vaccine Misinformation Insights Report | Monthly       | • Proprietary methods | • Media trends analysis  
• Emerging threats and data deficits  
• Online vaccine narratives |
|                             | Project VCTR                              | Weekly                | • Proprietary methods | • National and regional trends in negative attitudes toward vaccination  
• Conversations around Legislation |
|                             | Virality Project                         | Weekly                | • Proprietary methods | • Mis- and disinformation trends related to COVID-19 vaccine |