In response to the joint CDC/FDA recommendation to pause the use of Johnson & Johnson’s Janssen COVID-19 Vaccine, a rapid assessment based on the methods and inputs from the COVID-19 State of Vaccine Confidence Insights Report was conducted.

The Rapid COVID-19 State of Vaccine Confidence Insights Report seeks to better understand consumer, provider, and state and jurisdiction chief concerns about the recommendation to pause use of the J&J/Janssen vaccine. The report describes threats to COVID-19 vaccine confidence, content gaps and information voids, circulating mis- and disinformation, and action steps for federal agencies to take now.

The information in this report is a snapshot from April 13, 2021 through April 15, 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).
Perceptions, Concerns, and Threats to Vaccine Confidence

Following the announcement from Centers for Disease Control and Prevention (CDC) and Food and Drug Administration (FDA), consumers in the United States commented online that they perceived the decision to pause use of the J&J/Janssen COVID-19 Vaccine to be either beneficial or detrimental for the health and safety of the country. Some praised CDC and FDA for reacting quickly, noting that the decision demonstrates that vaccine safety is a priority. However, more commonly, consumers expressed the belief that CDC and FDA may have misjudged the risk to the public.

Given the rarity of the severe blood clotting events, pro-vaccine consumers were concerned that the decision to pause the vaccine would damage vaccine confidence broadly and undermine the safety of all three COVID-19 vaccines. Consumers also expressed concern that the country’s vaccine uptake would suffer, despite White House attempts to assure the public that this pause would not have a significant impact on the rate of vaccinations or population vaccination goals. Broader implications of the pause include concerns about whether rural vaccination would be jeopardized, whether efforts to reach population immunity would be dampened, or if it is an indication that we would learn about long-term or other adverse vaccine events in the future. Polls indicate that such vaccine interruptions may shake consumers’ confidence in the safety of a vaccine; vaccine confidence fell significantly in Europe following the AstraZeneca pause, such that more than half of the people in Germany, France, and Spain believed the vaccine was unsafe.

Early polling data in the United States suggest that the pause in the J&J/Janssen vaccine triggered a decline in consumer confidence in the safety of this vaccine. After the announcement, only 37% called the vaccine safe, a drop of 15% in two to three days. A separate survey indicated that among consumers intending to get vaccinated against COVID-19, those willing to get the J&J/Janssen COVID-19 vaccine fell from 49% to 22% from April 12 to April 14. Notably, the percentage of women willing to get this vaccine fell to 15% — a drop of 31 percentage points. So far, this drop in vaccine confidence does not appear to extend to the Pfizer-BioNTech and Moderna COVID-19 vaccines. Currently, 59% of consumers consider them to be safe and 19% feel that they are unsafe. These data remained steady over time, indicating that concerns over the J&J/Janssen COVID-19 Vaccine may not have negatively affected confidence in the mRNA COVID-19 vaccines at this time.

Lastly, the pause in the J&J/Janssen vaccine might cause the “wait and see” group to wait even longer before getting vaccinated, thereby increasing their own risk of COVID-19 and affecting population immunity more broadly. About one-third of the movable middle—people who want to “wait and see” before getting vaccinated—indicate that vaccine effectiveness and vaccine safety data are most likely to influence their decision to get vaccinated. In this same group, 57% were most concerned about vaccine side effects. Additionally, a recent poll found that people wanting to “wait and see” before deciding to get vaccinated reported that if they decided to get vaccinated they would probably or definitely get any of the three available brands (Pfizer-BioNTech, Moderna, and J&J/Janssen), but a slightly larger share indicates they would “definitely” get the one-dose J&J/Janssen vaccine (16%).

Perception of the safety of the Johnson & Johnson vaccine dropped after the suspension announcement

How safe, or unsafe, do you think the Johnson & Johnson vaccine is? (% of US adults)

<table>
<thead>
<tr>
<th>Safe</th>
<th>Unsafe</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before Johnson &amp; Johnson vaccine pause</td>
<td>52</td>
<td>26</td>
</tr>
<tr>
<td>After Johnson &amp; Johnson vaccine pause</td>
<td>37</td>
<td>39</td>
</tr>
</tbody>
</table>

There were 1440 US Adult citizens polled about the safety of the Johnson & Johnson vaccine. 1,089 respondents started the survey before the suspension announcement was made on Tuesday, and 407 respondents started the survey after.

Content Gaps and Information Voids

Consumers congregated on social media, where mentions of the J&J/Janssen COVID-19 Vaccine peaked on April 13 and increased by 1018% from the previous day across all platforms. Mentions have since declined but remain elevated. Facebook interactions regarding side effects or adverse effects also peaked on April 13 and increased by 343% from the previous day and continue to remain elevated. Several content gaps and information voids emerged related to guidance for people who have recently received the J&J/Janssen COVID-19 Vaccine, vaccine safety, and this specific adverse event. These questions should be anticipated and addressed through expanded online content and talking points. Questions from consumers emerged on social media in response to news coverage and federal government social media channels, organically through social media and forum platforms, and through CDC-INFO.

Questions that emerged on April 13, 2021:

**Potential Actions Needed for Those Recently or Soon-to-Be Vaccinated**
- What next steps should consumers take who recently received the J&J/Janssen COVID-19 Vaccine?
  - What side effects are normal and what side effects should they look out for?
  - Are there some side effects that were previously considered normal, that are now potential signs of a severe blood clotting event?
  - If consumers feel that they are experiencing symptoms of severe blood clots, who should they contact and where should they go for help?
- What if consumers are already scheduled to receive the J&J/Janssen COVID-19 Vaccine?

**Blood Clots, COVID-19 Vaccine Brands, and Personal Risk**
- Why is there not a risk of this type of adverse event with mRNA COVID-19 vaccines (Pfizer-BioNTech and Moderna)?
  - What is the difference between mRNA vaccines and viral vector vaccines?
  - Are rare blood clots associated with the Pfizer-BioNTech and Moderna vaccines?
- What is the difference between cerebral venous sinus thrombosis (CVST) and other types of blood clots?
- Did those patients affected by CVST have any underlying medical issues or conditions that put them at increased risk?
  - Were birth control pills involved or related?
  - Was Factor V Leiden, a genetic change of one of the clotting factors in the blood that can increase chances for developing blood clots, related?
  - What were the demographics of those patients affected?
- Is this the same problem linked to the AstraZeneca vaccine in Europe?
- What is the relative risk of blood clots?
  - As compared to COVID-19 illness?
  - As compared to the rate of blood clots in the same demographic who are unvaccinated?

Content gaps and information voids shifting in the following days. While many of the questions in the ‘Potential Actions Needed for Those Recently or Soon-to-Be Vaccinated’ have been answered, new questions and concerns emerged, and some remained following the Advisory Committee on Immunization Practices (ACIP) meeting on April 14, 2021. Many of the questions above regarding ‘Blood Clots, COVID-19 Vaccine Brands, and Personal Risk’ continue to go unanswered, with additional contextual questions and questions regarding other COVID-19 vaccines surfacing. Questions from clinicians were also seen through CDC-INFO.
Content Gaps and Information Voids (cont.)

New questions that emerged from April 14, 2021 through April 15, 2021:

Potential Actions Needed for Consumers Recently or Soon-to-Be Vaccinated
- How do consumers report an adverse event after receiving J&J/Janssen COVID-19 Vaccine?
- How long should consumers who received J&J/Janssen COVID-19 Vaccine monitor their health for symptoms for CVST?
- What actions should consumers take after receiving J&J/Janssen COVID-19 Vaccine?
  - Is there anything consumers can do to decrease their risk of CVST or another blood clotting event, such as take aspirin or blood thinners?
  - Should consumers get their platelet counts checked?
  - Should consumers delay airplane travel?
  - Should consumers stop taking birth control pills?
- What about consumers who still want to get vaccinated with J&J/Janssen COVID-19 Vaccine?

Personal Risk Concerns
- Is there an increased risk for consumers who have a history of blood clotting, heart attack, high cholesterol, or high blood pressure?

Vaccine Pause
- Why couldn't interim recommendations be made?
  - If cases were only seen among women, why can't men continue to receive the J&J/Janssen COVID-19 Vaccine?
  - If cases were only seen in people under 50 years old, why can't people over 50 years old still receive the J&J/Janssen COVID-19 Vaccine?
- Why were Pfizer-BioNTech and Moderna COVID-19 vaccines not paused when CVST cases were identified after vaccination?

Vaccine Pause Implications
- Will this pause delay ACIP decisions to recommend new COVID-19 vaccines?
- Will this pause change ACIP future decisions about recommendations for COVID-19 vaccination for children?

Provider Inquiries
- Are providers prohibited from administering J&J/Janssen COVID-19 Vaccine during the pause?
- What actions need to be taken related to remaining supply of J&J/Janssen COVID-19 Vaccine?
- How can I effectively talk to patients who received J&J/Janssen COVID-19 Vaccine and are experiencing symptoms?
Misinformation and Disinformation Themes

Vocal vaccine deniers were both validated and fueled by the April 13 announcement. Misinformation related to the pause in administration of J&J/Janssen COVID-19 Vaccine began to circulate rapidly including about the adverse events, broader conspiracy theories related to the J&J/Janssen vaccine, COVID-19 vaccines more generally, and the COVID-19 pandemic. Ranked in order of volume, the most common misinformation themes included:

1. **There are more cases of severe blood clots from the J&J/Janssen COVID-19 Vaccine than the government is reporting; this is not actually a rare adverse event.** Some allege that there are additional severe blood clot cases not being reported or that are underreported. Vaccine deniers claim that less than 10% of adverse events are reported to VAERS. Some believe that the government waited this long to pause any vaccine because reaching President Biden’s vaccine goal was of primary importance, rather than the safety and health of consumers.

2. **Pfizer-BioNTech and Moderna’s COVID-19 vaccines have the same rates of adverse events, but the government has incentive to keep these vaccines on the market.** There are claims that the mRNA COVID-19 vaccines are also resulting in hospitalizations and death due to severe blood clots, but these vaccines were not paused because government leaders have financial motivations for keeping those vaccines on the market. Additionally, some believe the COVID-19 pandemic itself is a hoax formulated by the government as a means to work with pharmaceutical companies for financial gain.

3. **The severe adverse events are actually related to the J&J/Janssen COVID-19 Vaccine production issues.** Deniers believe that victims received contaminated vaccine or vaccine mixed with the AstraZeneca vaccine, which has been linked to the same type of blood clots in Europe.

4. **It is not possible for COVID-19 vaccines to be safe because they are not FDA approved and are “experimental.”** Deniers stated that such adverse events should be expected because the COVID-19 vaccines have not been tested thoroughly and that an Emergency Use Authorization is merely an extension of the clinical trial period. Additionally, many claims also cited that vaccine companies not being liable for adverse events as an additional reason to not trust vaccines.

5. **Tech companies have been censoring the truth about COVID-19 vaccines.** Some contend that the news out of federal agencies on April 13 aligns with the content they have been posting for months about the dangers of COVID-19 vaccines. They feel that previous removal of posts or account restrictions are a double standard as the government has been claiming these vaccines are “safe and effective.”

6. **The pandemic is about government control.** Claims that government agencies are working with technology companies to cover-up the truth about the COVID-19 pandemic and vaccinations were among the top shared posts on Facebook following the announcement to pause the J&J/Janssen COVID-19 Vaccine.
Ways for Federal Agencies to Take Action Now

Disseminate messages focused on the importance of vaccination as an important tool to end the pandemic.
- Disseminate messages on agency channels highlighting that vaccination will play a key role in ending the COVID-19 pandemic.
- Disseminate messages that the U.S. vaccination system will continue to offer safe and effective vaccines and will continue to monitor vaccine safety through rigorous vaccine safety monitoring systems.
- Disseminate messages that the integrity and transparency of safety monitoring systems will be maintained. Increased reports of adverse events to safety monitoring systems are expected and will be appropriately investigated.
- Disseminate messages about how ACIP makes decisions and their role in safety monitoring and the U.S. vaccination system.
- Coordinate messages across all federal agencies to ensure alignment and credibility.
- Work with partners to identify trusted messengers and local influencers to amplify vaccination stories.
- Leverage #SleeveUp and #WeCanDoThis for consumers to highlight their continued confidence in COVID-19 vaccines, vaccine providers, and the vaccination system.

Fill content gaps and information voids.
- Create clear, consistent messaging about vaccine developments and communicate often about what is known and unknown about J&J/Janssen COVID-19 Vaccine.
- Expand web content to include additional frequently asked questions, expanded guidance for individuals who received the J&J/Janssen COVID-19 Vaccine, and clinical guidance for healthcare providers.
- Develop content in a variety of styles, including easy to use graphics, videos, and social media content, to answer questions and fill information gaps.

Address mis- and disinformation.
- Develop and disseminate plain language talking points and suggested social media messages and unbranded assets for social media influencers and the COVID-19 Community Corps.
- Partner with technology companies and notify them of key messages to flag or remove. Ensure technology companies promote resources with credible, evidence-based information about COVID-19 vaccines beyond resources from federal agencies and health departments.
- Expand Myths and Facts web content to address new mis- and disinformation themes and update content regularly.
- Empower consumers to have effective, empathetic conversations about vaccines with family and friends online and offline.

Work with healthcare providers, with additional focus on OB/GYNs and women-focused health organizations.
- Empower healthcare providers to relay information about vaccine effectiveness and vaccine safety to patients; strengthen their capacity to have empathetic vaccine conversations.
- Offer healthcare providers and trusted advocates content prioritized for female patients concerned about vaccine safety and effectiveness.
- Provide guidance for how to communicate with consumers who recently received the J&J/Janssen COVID-19 Vaccine including what they should do, whom they should contact, and where they should go if they think they are experiencing an adverse event or side effect.
Ways for Federal Agencies to Take Action Now (cont.)

Support research efforts to better understand which communities are most affected by the pause of J&J/Janssen COVID-19 Vaccine.

- Determine which communities are most impacted by the J&J pause, including vaccine access issues following the pause and the restricted choice of 2-dose mRNA COVID-19 vaccines.
- Identify which communities are most impacted due to barriers to vaccine confidence that are specific to J&J/Janssen COVID-19 Vaccine (e.g., one dose vaccination, non-mRNA vaccine).
- Expand current polling mechanisms to include questions about the pause of J&J/Janssen COVID-19 Vaccine and other safety concerns.
- Identify poll indicators that could be used to better understand how current safety concerns impact people’s intent to get vaccinated.

Work with states and jurisdictions to ensure continuity of COVID-19 vaccination.

- Identify jurisdictions that had specific needs related to J&J/Janssen COVID-19 Vaccine and support the adjusting of tactics to administer 2-dose mRNA COVID-19 vaccines.
- Provide guidance for how to communicate with consumers who have J&J/Janssen COVID-19 Vaccine appointments about rescheduling and what next steps are (e.g., receiving a 2-dose mRNA COVID-19 vaccine at same appointment, re-registering for a 2-dose mRNA COVID-19 vaccine at a later date).
- Provide guidance for adjusting existing webpages and content that mention J&J/Janssen COVID-19 Vaccine.
## Appendix: Inputs and Sources

The Rapid COVID-19 State of Vaccine Confidence Insights Report collected and synthesized data from over 15 data streams to distill patterns of consumer, provider, and state and jurisdiction questions, comments, and concerns about the recommendation to pause use of the J&J COVID-19 Vaccine.

<table>
<thead>
<tr>
<th>Input</th>
<th>Sources</th>
<th>Tactics for Utilization</th>
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</table>
| Meltwater       | - Facebook, Twitter, Instagram  
                 - Blogs  
                 - News media  
                 - Online forums                                      | - Conduct share of voice topic analysis  
                 - Identify emerging topic themes  
                 - Detect high reach and high velocity topics |
| OADC Channel Comment Analysis | - Native platform searches                                           | - Conduct sentiment analysis  
                 - Recognize message gaps and information voids |
| CrowdTangle     | - Facebook                                                             | - View top pages (voices) and top groups  
                 - General trends/sentiment analysis  
                 - Examine news analysis through posts |
| FEMA Social Listening Report | - Hootsuite  
                 - Brandwatch  
                 - CrowdTangle  
                 - Meltwater                                      | - Identify trends  
                 - Conduct sentiment analysis  
                 - Examine national and global news analysis |
| CDC-INFO Metrics | - CDC-INFO inquiry line list  
                 - Prepared response (PR) usage report               | - Compare PR usage report with inquiry theme analysis  
                 - Recognize message gaps and information voids |
| Poll Review     | - Harris Poll, PEW Research, Gallup Poll, KFF, de Beaumont  
                 - New, emerging poll data sources (e.g., YouGov polling data) | - Identify socio-behavior indicators related to motivation and intention to vaccinate |