



# CDC's State of Vaccine Confidence Insights Report

Mpox in Chicago Special Report  
June 23, 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).



# Report Summary

## Themes with the potential to impact vaccine confidence and demand:

- **Theme 1:** Consumers continue to have questions about the availability and need for mpox vaccination, including booster doses.
- **Theme 2:** Many social media users and consumers believe the JYNNEOS mpox vaccine is not effective.
- **Theme 3:** Many social media users believe the mpox outbreak in Chicago is not concerning due to the low number of cases, the ability of the disease to only affect the LGBTQ+ population, and the belief that governmental agencies exaggerate community risks.

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

- Create, promote, and share messages that promote stories from community members about positive vaccine experiences, vaccine safety and rarity of adverse events from the mpox vaccines.
- Work with community-based organizations, members of the LGBTQ+ community, and trusted messengers to rapidly identify and counteract the circulation of inaccurate mpox health information. Disseminate factual information through trusted channels used by members of the community.
- Continue to work with community members and trusted messengers to communicate any new changes in guidance, spread, and vaccine uptake about the mpox outbreak in Chicago as soon as possible.
- Continue to increase accessibility to vaccines where people go for sexual health care, HIV care, pre-exposure prophylaxis (PrEP) or condoms and other public health and primary care settings. Meet people where they are. Work with your local health department to support a pop-up vaccination site in your community.
- Continue messaging the need for full vaccination (2 doses) through partnering with local trusted messengers through dissemination channels used by the priority audiences such as social media, online and offline influencers, community events, medical providers including organizations that serve members of the LGBTQ+ community.
- Create and disseminate messages with LGBTQ-serving organizations and community members to highlight the work done by these groups in preventing the spread of mpox and reducing stigma towards the LGBTQ+ community.

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# Aims and Methods

By rapidly reviewing and analyzing numerous Illinois-specific data sources and inputs, this State of Vaccine Confidence Insights Report emphasizes major themes influencing the concerns and uptake of the recommended mpox vaccine, JYNNEOS. 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 inaccurate health beliefs to help identify where intervention efforts can improve vaccine confidence. Social media posts and news stories for this report were specifically gathered from Illinois to help analyze themes across the state during the mpox outbreak in the Chicago area reported by the CDC Health Alert Network on May 15, 2023.

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. Social media posts referenced throughout this report can be viewed in [this linked document](#).

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)?		
<b>Increasing</b> Information spreading rapidly	<b>Stable</b> Information remaining constant at prior level	<b>Decreasing</b> Information is not gaining further traction and there has been no indication of additional activity



## Theme 1: Consumers continue to have questions about the availability and need for mpox vaccination, including booster doses.

As a new outbreak of mpox emerges in the Chicago area, local public health authorities are encouraging all individuals at risk for mpox who are not currently vaccinated to get vaccinated against mpox.<sup>1,2</sup> A potential reemergence of mpox this summer has many public health officials, advocacy organizations and online influencers concerned and speaking out to encourage vaccine uptake.<sup>3,4,5</sup>

### Theme 1: Perceptions, Concerns, and Threats to Vaccine Confidence

- Some social media users continue to express confusion and concern about eligibility requirements for the mpox vaccine.<sup>6</sup>
- Some consumers,<sup>8</sup> including those that have previously received the mpox vaccine, have questions and concerns about vaccine effectiveness and whether booster doses will be offered.<sup>9</sup>
- Cases of mpox among those who have been previously vaccinated have caused some to question the effectiveness of mpox vaccines.<sup>10</sup>

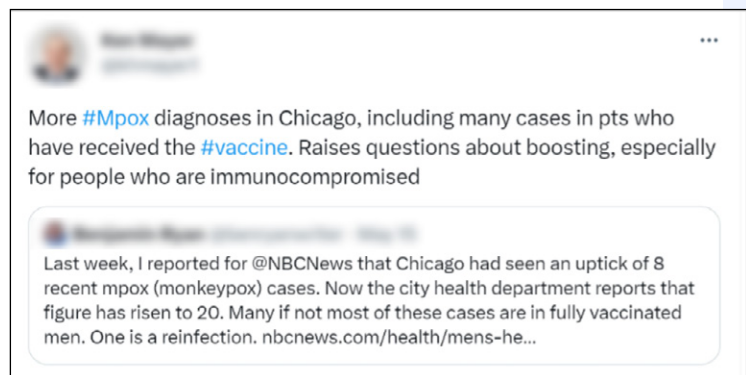


## Theme 2: Many social media users and consumers believe the JYNNEOS mpox vaccine is not effective.

The promotion and distribution of the 2-dose JYNNEOS vaccine to populations most at risk is the cornerstone of the U.S. national mpox vaccination strategy developed to counteract the mpox outbreak of 2022.<sup>11</sup> Three recently published studies<sup>12,13,14</sup> of mpox vaccine effectiveness demonstrated that two doses of the JYNNEOS vaccine are between 66% and 89% effective at preventing symptomatic disease. Additionally, a recent MMWR on the safety of the JYNNEOS vaccine found that “JYNNEOS post-licensure and post-authorization vaccine safety surveillance findings to date are consistent with those observed in the clinical trials, and support JYNNEOS vaccine safety with no new or unexpected safety concerns identified.”<sup>15</sup>

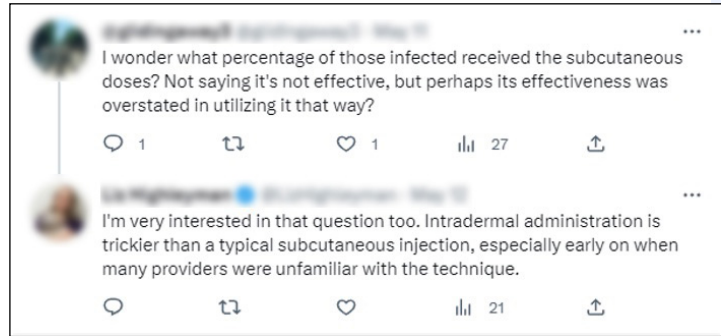
### Theme 2: Perceptions, Concerns, and Threats to Vaccine Confidence

- Consumers express concern that new mpox infections among vaccinated persons means vaccine-derived protection wanes over time.<sup>16,17</sup> Consumers are also responding to updates from public health authorities<sup>18,19,20</sup> on the recent mpox cluster with requests for more details on their vaccination and health status.
- Consumers want more information about vaccinated cases, including number of doses, whether doses were administered intradermally, and underlying illnesses, to understand their personal risk.<sup>21,22,23</sup>





- Some consumers have questions and concerns about the effectiveness of the JYNNEOS vaccine when administered subcutaneously.<sup>24,25</sup>
- Some social media users spread their belief that the mpox vaccine is more experimental than COVID-19 vaccines.<sup>26</sup>
- Some social media users share inaccurate information about vaccines on local health department and other organizations’ social media posts about mpox vaccination. These themes and citations can be found in the section below: *Inaccurate Themes That May Impact Vaccine Confidence*.

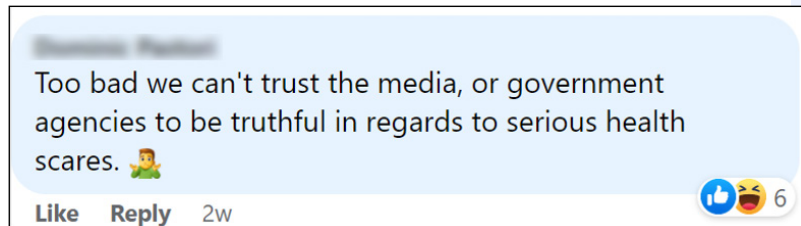


### Theme 3: Many social media users believe the mpox outbreak in Chicago is not concerning due to the low number of cases, the ability of the disease to only affect the LGBTQ+ population, and the belief that governmental agencies exaggerate community risks.

The end of the mpox public health emergency may have influenced people’s perceptions about the need for vaccination. The Department of Health and Human Services did not renew the mpox public health emergency after it was set to end on January 31, 2023.<sup>27</sup> Since the end of the mpox public health emergency, CDC continues to publish studies about mpox prevention and treatment which, for some, feeds into the COVID-19 pandemic narrative that public health emergencies have been exaggerated.<sup>28,29</sup> Additionally, news media continues to highlight the successful efforts of the LGBTQ+ community to protect themselves against mpox during periods of low community transmission.<sup>30,31</sup> Public health professionals are once again warning members of the LGBTQ+ community about the importance of vaccination as potentially rising cases in Chicago are cause for concern.<sup>32,33</sup>

### Theme 3: Perceptions, Concerns, and Threats to Vaccine Confidence

- Some social media users do not trust the government to accurately communicate the risks of mpox.<sup>34,35,36</sup>
- Some social media users believe the outbreak in Chicago is not cause for concern, and many consumers are overreacting.<sup>37,38,39</sup>
- The World Health Organization recently announced that mpox, while still a public health challenge, no longer represents an international public health concern<sup>40</sup> which might decrease perceived risk of infection and negatively impact vaccination efforts.
- Many social media users blame the LGBTQ+ community for the rise in mpox cases.<sup>41,42,43</sup>





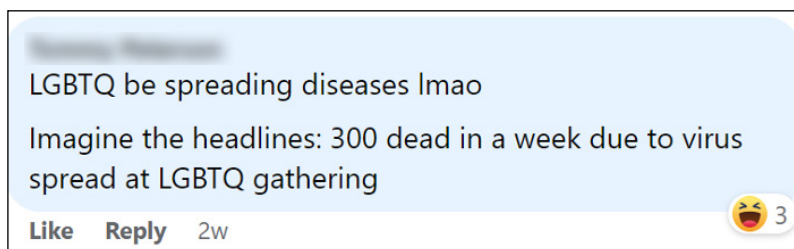
## Commonly Asked Questions and Queries from the Public

- Who is eligible for mpox vaccination?
- For which populations is the mpox vaccine recommended?
  - CDC [recommends vaccination](#) against mpox if:
    - You had known or suspected exposure to someone with mpox
    - You had a sex partner in the past 2 weeks who was diagnosed with mpox
    - You are a gay, bisexual, or other man who has sex with men or a transgender, nonbinary, or gender-diverse person who in the past 6 months has had any of the following:
      - » A new diagnosis of one or more sexually transmitted diseases (e.g., chlamydia, gonorrhea, or syphilis)
      - » More than one sex partner
    - You have had any of the following in the past 6 months:
      - » Sex at a commercial sex venue (like a sex club or bathhouse)
      - » Sex related to a large commercial event or in a geographic area (city or county for example) where transmission of the virus that causes mpox is occurring
      - » Sex in exchange for money or other items
    - You have a sex partner with any of the above risks
      - » You anticipate experiencing any of the above scenarios
      - » You have HIV or other causes of immune suppression and have had recent or anticipate future risk of mpox exposure from any of the above scenarios
- Is mpox vaccination necessary?
  - Yes. It is important to take both doses of the 2 dose JYNNEOS vaccine. Vaccination makes getting and spreading mpox less likely. Vaccine may also protect you against severe infection, hospitalization, and death. No vaccine is 100% effective, so vaccination should be combined with other prevention measures such as avoiding skin to skin contact with someone who has mpox and reducing the number of sexual partners.<sup>44</sup>
- Should people wait to get vaccinated until a new updated mpox vaccine becomes available?<sup>45</sup>
  - No, eligible people should get vaccinated with two doses of the current vaccine, JYNNEOS, as soon as possible. There is no information about a new or updated mpox vaccine.
- Is vaccination available to immunocompromised people?
  - Yes, JYNNEOS vaccine is recommended for persons with HIV or other causes of immune suppression who anticipate exposure to mpox since they may be at [increased risk](#) of severe prolonged mpox and protracted infectiousness. Limited data suggest that people with HIV, particularly people with low CD4 counts (<350 cells/ml) or who are not virally suppressed, are more likely to be hospitalized and possibly die if they get mpox than people without HIV.<sup>46</sup>



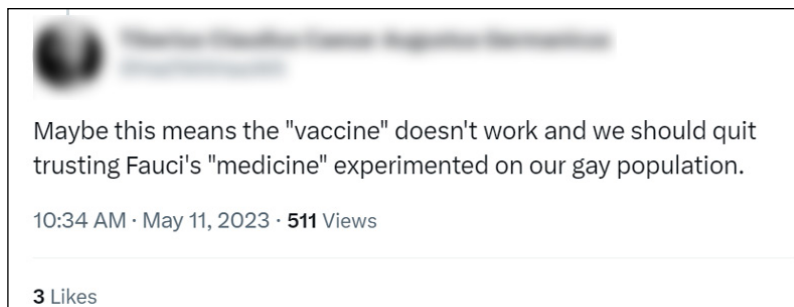
## Inaccurate Health Information Themes that May Affect Vaccine Confidence

- One vocal vaccine opponent claims the JYNNEOS vaccine causes myocarditis, that people are at a greater health risk from receiving the vaccine than getting mpox, that COVID-19 vaccination is causing a decrease in immune response making mpox acquisition more likely and more severe, and that mpox might have been intentionally released.<sup>47,48</sup>
- When some organizations share social media posts about mpox, some social media users reply with links to videos that claim vaccines cause sudden death.<sup>49</sup>
- Some social media users believe the Chicago mpox outbreak is resistant to vaccines.<sup>50</sup>
- Some social media users believe the mpox vaccine does not work because some cases were in vaccinated individuals.<sup>51,52,53</sup>
- An interviewer claimed working near monkeys puts people at an increased risk for mpox.<sup>54</sup>
- Some social media users feel government is using the rise of mpox cases as a way to spread unwarranted fear and to spend more money on vaccines.<sup>55,56,57</sup>
- Some social media users cite open borders and immigrants as the cause of rising mpox cases.<sup>58,59,60</sup>
- Some social media users believe mpox only affects members of the LGBTQ+ community.<sup>61,62,63</sup>



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

- Distribute easy-to-understand information through a variety of mediums, including handouts and social media posts, with facts about mpox and locations that offer the vaccine.
- Clinical partners might consider getting technical assistance from the CDC-funded [National Network of STD Clinical Prevention Training Centers](#) (NNPTC) to create a more inclusive clinical environment.
  - The NNPTC also offers regular clinical update webinars on mpox and has a free [clinical consultation line](#) to answer clinicians' questions about mpox and STIs.
- Create, promote, and share messages that promote stories from community members about positive vaccine experiences, vaccine safety and rarity of adverse events from the mpox vaccines.
- Work with community-based organizations, members of the LGBTQ+ community, and trusted messengers to rapidly identify and counteract the circulation of inaccurate mpox health information. Disseminate factual information through trusted channels used by members of the community.





- Work with a range of community partners to increase vaccine equity.
- Continue to work with community members and trusted messengers to communicate any new changes in guidance, spread, and vaccine uptake about the mpox outbreak in Chicago as soon as possible.
- Continue to increase accessibility to vaccines where people go for sexual health care, HIV care, pre-exposure prophylaxis (PrEP) or condoms and other public health and primary care settings. Meet people where they are. Work with your local health department to support a pop-up vaccination site in your community.
- Continue messaging the need for full vaccination (2 doses) through partnering with local trusted messengers through dissemination channels used by the priority audiences such as social media, online and offline influencers, community events, medical providers including organizations that serve members of the LGBTQ+ community.
- Create and disseminate messages with LGBTQ-serving organizations and community members to highlight the work done by these groups in preventing the spread of mpox and reducing stigma towards the LGBTQ+ community.





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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"> <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>
Meltwater	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>
OADC (Office of the Associate Director of Communication) Channel COVID-19 Post metrics	Weekly	<ul style="list-style-type: none"> <li>Sprout Social</li> <li>Native OADC (Office of the Associate Director of Communication) 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>
OADC Channel Comment Analysis	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>

## Direct Report Data Sources

Input	Cadence	Sources	Tactics for Utilization
CDC-INFO Metrics	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>
VTF Media Requests	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>
Web Metrics	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>



### Research and Literature Data Sources

Input	Cadence	Sources	Tactics for Utilization
Poll Review	Weekly	<ul style="list-style-type: none"> <li>▪ Harris Poll, PEW research, Gallup Poll, KFF, Annenberg Public Policy Center</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>
Literature Review	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>

### Third Party Report Data Sources

Input	Cadence	Sources	Tactics for Utilization
Tanaq Social Listening +Media Monitoring Report	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>
Washington St. Louis iHeard	Weekly	<ul style="list-style-type: none"> <li>▪ Proprietary methods</li> </ul>	<ul style="list-style-type: none"> <li>▪ Survey results</li> <li>▪ Emerging threats and data deficits</li> <li>▪ Vaccine narratives</li> </ul>
Project VCTR	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>