

Special COVID-19 State of Vaccine Confidence Insights Report

May 10-28, 2021 | Authorization & Recommendation of the Pfizer-BioNTech COVID-19 Vaccine for Adolescents Aged 12 through 15 Years
Vaccine Confidence Team, Insights Unit



Following the Food and Drug Administration (FDA) Emergency Use Authorization and the Centers for Disease Control and Prevention (CDC) recommendation for use of the Pfizer-BioNTech COVID-19 Vaccine in adolescents aged 12 through 15 years old, a special insights report was conducted using the same methods and [inputs](#) from [the COVID-19 State of Vaccine Confidence Insights Reports](#).

This report seeks to better understand the perceptions and sentiment of parents and adolescents regarding COVID-19 vaccination for adolescents 12 through 15 years old. The report details threats to COVID-19 vaccine confidence, content gaps and information voids, circulating mis- and disinformation, and action steps to take.

The information in this report is a snapshot from May 10, 2021 through May 28, 2021.



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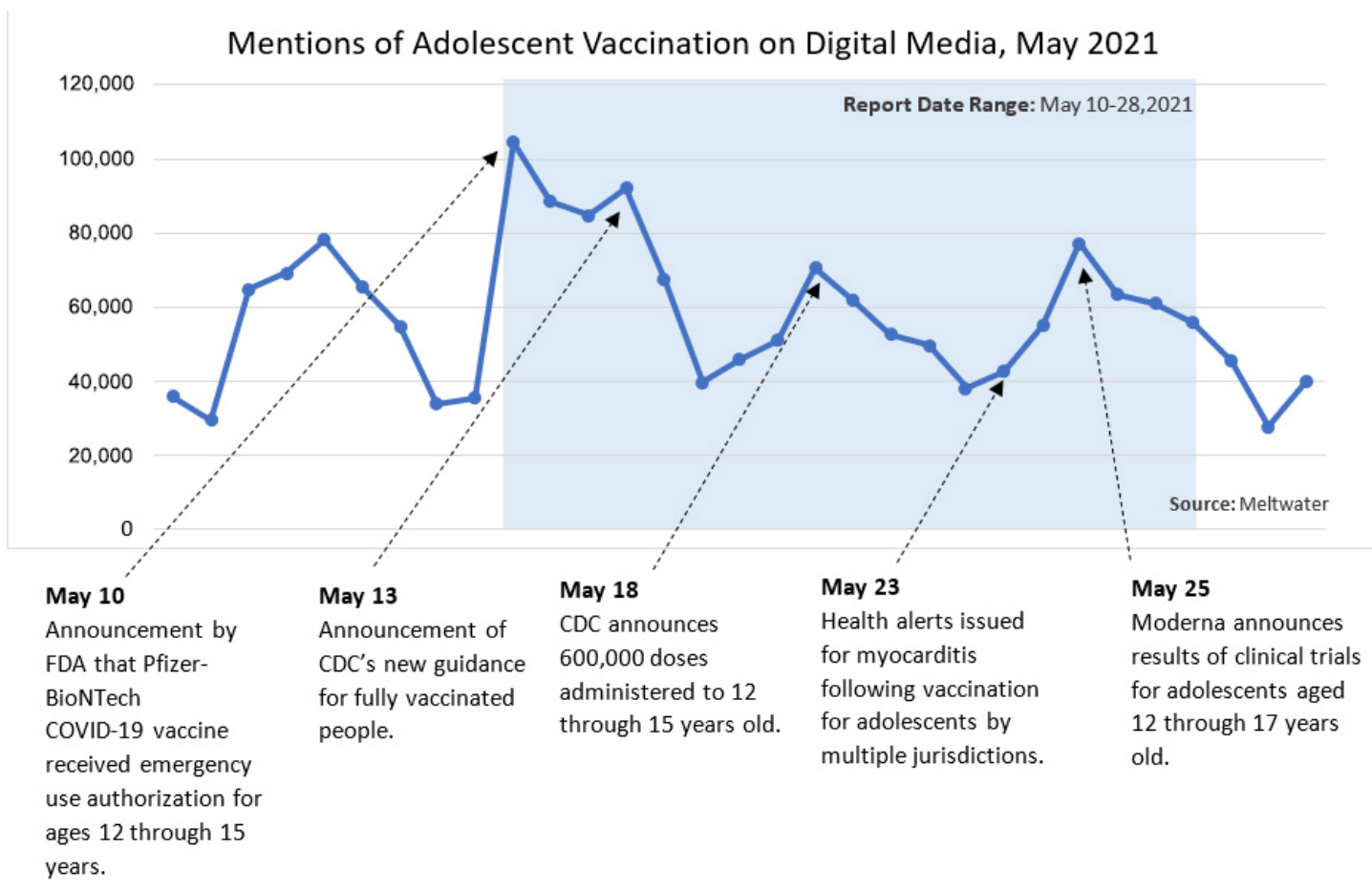
The findings and conclusions in this report are those of the author(s) and do not necessarily represent the official position of the Centers for Disease Control and Prevention (CDC).

Rapid COVID-19 State of Vaccine Confidence Insights Report

May 10-28, 2021 | Authorization & Recommendation of the Pfizer-BioNTech COVID-19 Vaccine for Adolescents Aged 12 through 15 Years

Background

On May 10, 2021, the Food and Drug Administration (FDA) expanded the Emergency Use Authorization (EUA) for the Pfizer-BioNTech COVID-19 Vaccine to include adolescents aged 12 through 15 years old, making nearly 85% of the U.S. population eligible to receive a COVID-19 vaccine.^{1,2} The Pfizer-BioNTech COVID-19 Vaccine has been authorized for people 16 years and older since December 11, 2020. Mentions of COVID-19 vaccines and adolescents by consumers on social media increased by 47% during May 10–28, 2021, as compared to the 3 prior weeks. While there was not a standalone peak, the overall conversation related to [COVID-19 vaccination and myocarditis](#) among adolescents increased by 1,577% during the reporting period. The conversation about vaccination and myocarditis among adolescents peaked alongside news from Moderna about its clinical trials.



Perceptions, Concerns, and Threats to Vaccine Confidence

Many parents expressed excitement following FDA's announcement and relief that vaccines would allow adolescents to get back to in-person schooling and prepandemic life safely.^{3,4,5,6} At the same time, other parents expressed the belief that COVID-19 presents a negligible risk for youth and that the vaccines are "experimental" and "unethical" to give to adolescents.^{7,8,9} As of May 28, 18% of adolescents aged 12–15 and 35% of adolescents aged 16–17 are at least partially vaccinated.^{10,11,12}

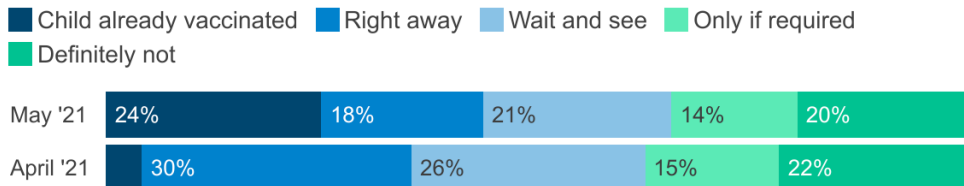
Parent Intentions for Vaccinating Adolescents

Parents' intentions for vaccinating their adolescents generally match their own vaccination intentions, with unvaccinated parents largely hesitant to vaccinate their teens.^{13,14,15} As seen in the figure below, 55% of parents are hesitant about getting their adolescents vaccinated, would only get their adolescent vaccinated if required, or would refuse vaccination entirely.¹⁶ The number of hesitant and reluctant parents has decreased since March, as increased numbers of parents endorse vaccination.¹⁷ Further, recent polling data and surveys indicate younger moms and moms with less education and income are more reluctant to get their kids vaccinated against COVID-19.^{18,19,20,21}

Figure 8

Four In Ten Parents Say Their Adolescent Has Already Received A COVID-19 Vaccine Or Will Do So Right Away

As you may know, the FDA recently authorized the use of the Pfizer COVID-19 vaccine for use in children ages 12 and up. Thinking about your child or children between the ages of 12-17, do you think you will...?



NOTE: Among parents or guardians of children ages 12-17. April 2021 question wording: "Once there is a COVID-19 vaccine authorized and available for your child's age group, do you think you will...?" See topline for full question wording.

SOURCE: KFF COVID-19 Vaccine Monitor (May 18-25, 2021)

KFF COVID-19 Vaccine Monitor

Source: <https://www.kff.org/coronavirus-covid-19/poll-finding/kff-covid-19-vaccine-monitor-may-2021/>

Concern about Short- and Long-Term Vaccine Effects

Social media conversations and news reports indicated that some parents who are hesitant about COVID-19 vaccines are worried that vaccines might affect their adolescents' hormones, puberty, or future fertility and whether the vaccine will have negative long-term effects.^{22,23,24,25} Parents are worried that in this period of transition between childhood and adulthood, the many physical, sexual, and cognitive changes within adolescence will somehow be stymied or driven off-course.²⁶

Additionally, many parents reacted on social media and in the news media to several cases of [myocarditis following COVID-19 vaccination](#).^{27,28,29,30,31,32,33} Parents had questions about the implications of the reports, particularly in terms of safety, what they should do if their adolescent had pre-existing cardiac conditions, and whether their adolescents should complete the two-dose vaccination series if they had already received the first dose.^{34,35,36}

"[I worry that] if I make the wrong decision, I'm going to be a bad mom. I don't want either of my kids to turn around when they're in adulthood and ask, 'Why did you do this?'"

-Mother of adolescents, Houston, Texas

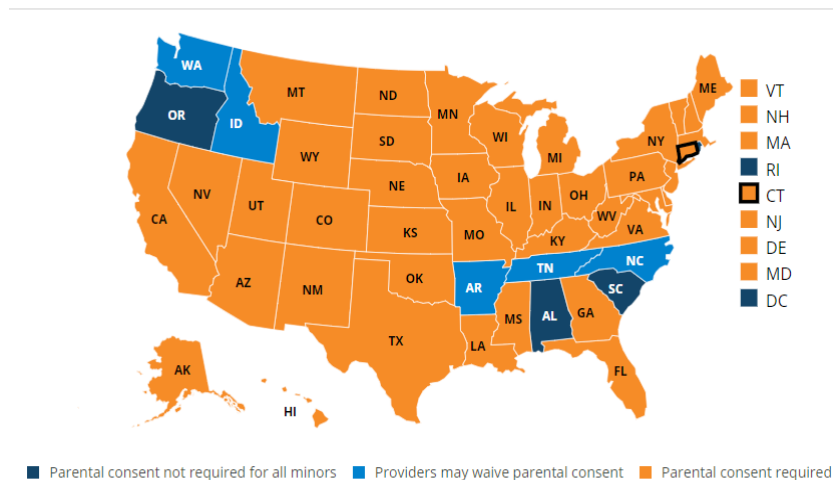
Source: <https://www.nytimes.com/2021/05/12/parenting/vaccine-children.html>

Perceptions, Concerns, and Threats to Vaccine Confidence

When Parents and Adolescents Disagree on COVID-19 Vaccination

Nearly all states require some form of parental or guardian consent for vaccine providers to administer vaccines to adolescents, but state laws remain a patchwork of differing rules based on age, healthcare provider, and even pharmacy policy.^{37,38,39} High-traction news stories have profiled youth working together online to help those who are enthusiastic about vaccination, but whose parents are hesitant.^{40,41,42} Youth-led organizations have created websites about how to have empathic, direct vaccine discussions with parents in order to counter parental misinformation.^{43,44} Some parents expressed surprise and alarm in response to news coverage about adolescents getting vaccinated regardless of their parents' preference,^{45,46} and some jurisdictions are aiming to block adolescents from seeking vaccination without parental permission, despite existing state law that does not require it.^{47,48} Pediatricians and family practitioners often find themselves on the front lines of such family debates,^{49,50} though some are vaccine hesitant themselves.⁵¹

Parental Consent Requirements for COVID-19 Vaccine

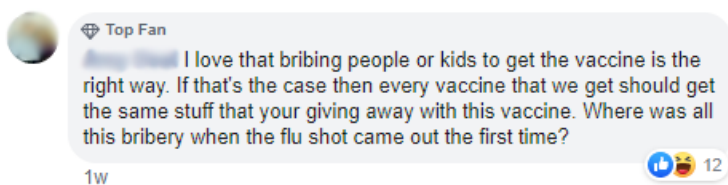


Source: <https://www.kff.org/policy-watch/covid-19-vaccination-and-parental-consent/>

School Policies and Incentives Have Uncertain Influences on COVID-19 Vaccination Behavior

Multiple news media articles speculated about whether COVID-19 vaccines will be mandated for students in the fall,^{52,53,54} and some states and jurisdictions are preparing legislation to prevent schools and governments from requiring it.^{55,56} It remains unclear whether such state and jurisdiction policies regarding school vaccine requirements will influence the parents' decision to vaccinate their adolescents, though 14% of parents say they will only get their children vaccinated if required by schools.^{57,58}

To increase vaccine access and demand among adolescents and their parents, some school districts are deploying mobile teams to get their students vaccinated before summer vacation.^{59,60,61} Others are offering adolescents incentives for vaccination, including full college scholarships, free tickets to prom, and extra credit in class.^{62,63} In response to use of incentives, some parents on social media wondered why schools and governments are "bribing" adolescents in exchange for vaccination, questioned who was funding such large-scale promotions, and worried about the influence of scholarships on families with lower incomes.^{64,65,66} To date, the influence of such incentives on vaccination behavior are not well-understood — particularly in regard to parents who may distrust vaccine safety data, and for the adolescents themselves, who may or may not be able to get vaccinated without their parents' permission.⁶⁷



Ways to act:

- Partner with healthcare professionals, particularly pediatricians and family practitioners, to promote adolescent vaccination.
- Engage adolescents in learning about the importance of COVID-19 vaccination.
- Support strategies to better understand adolescent intentions to vaccinate.
- Disseminate messages focused on the importance of vaccination as an important tool to end the pandemic.

Misinformation and Disinformation Themes

Mis- and disinformation about COVID-19 vaccines and children targeting parents, particularly those who want to “wait and see” before deciding to have themselves or their child vaccinated, has been spreading since clinical trials began enrollment in late 2020. Vocal vaccine deniers intensified their claims following FDA granting Pfizer-BioNTech’s COVID-19 Vaccine EUA for adolescents 12–15 years old. A large proportion of the mis- and disinformation related to adolescents is the same as the mis- and disinformation related to adults. It includes claims that EUAs are extensions of clinical trials, making the vaccines ‘experimental,’^{68,69} and that the vaccines are a form of gene therapy that can alter DNA.⁷⁰ Below are the most central mis- and disinformation themes for adolescent COVID-19 vaccination:

1. The risk of an adverse event following COVID-19 vaccination is greater than the risk of severe illness or complication from COVID-19 and the benefits of vaccination have been overstated. Vocal vaccine deniers amplified multiple narratives simultaneously to further long-held beliefs by vaccine-hesitant parents and vocal vaccine deniers that the risk of COVID-19 is minimal for adolescents, while the risk of adverse events following vaccination is high. Several vocal vaccine deniers amplified an op-ed that claimed that the risk of severe illness and outcomes from COVID-19 is negligible for children^{71,72,73} and a commentary that claimed reported hospitalization rates were overestimated.^{74,75} They also misrepresented [VAERS](#) data, alleging almost 1,000 adverse events following vaccination among adolescents^{76,77,78} and manipulated clinical trial data claiming that vaccines reduced the risk of COVID-19 minimally, and were therefore also not the worth the risk.⁷⁹

2. COVID-19 vaccination of adolescents is being done to sterilize a generation. Concerns about COVID-19 vaccines affecting fertility are long-standing.^{80,81} Vocal vaccine deniers have repackaged fertility-related misinformation to tap into parental concerns about the long-term effects of vaccination.^{82,83} Some vocal vaccine deniers even claimed that vaccination of adolescents was an attempt to sterilize them.^{84,85,86}

3. CDC is allowing co-administration of COVID-19 vaccines with other vaccines without any safety data. Vocal vaccine deniers also raised concern over the Advisory Committee on Immunization Practices (ACIP) recommendation to allow coadministration of COVID-19 vaccines with other vaccines. Vaccine deniers claimed that the decision was made without the consideration of safety data, was “arbitrary,” and was only made to make vaccination more convenient.^{87,88}

Ways to act:

- [Address mis- and disinformation.](#)
- [Fill content gaps and information voids, particularly for parents.](#)
- [Disseminate messages focused on the importance of vaccination as an important tool to end the pandemic.](#)

Content Gaps and Information Voids

Content gaps and information voids emerged around the risk of COVID-19 to adolescents, short- and long-term side effects of COVID-19 vaccination, and the safety of COVID-19 vaccines for specific populations of adolescents. Questions from consumers emerged organically on social media and forum platforms in response to news coverage and federal government social media content, as well as through inquiries to CDC-INFO. Following news coverage of several cases of myocarditis and health alerts issued by multiple jurisdictions, questions about the risks, symptoms, and causes of myocarditis after vaccination became dominant. The following lists the most frequently asked questions regarding adolescents and vaccination by theme.

Questions about the COVID-19 vaccine development and program

- How long did clinical trials last, how many adolescents were included, and did they include adolescents with:
 - Allergies
 - Developmental disabilities, ADHD, depression, or anxiety
 - Other co-morbidities, which parents believe may make their adolescent more vulnerable to COVID-19
- What is the difference between a vaccine available through EUA and a licensed vaccine, and when will COVID-19 vaccines be fully licensed?
- Who can require or mandate COVID-19 vaccination, and is it possible to be exempt from vaccination requirements?
- Why are only adolescents 12 through 15 years old eligible for vaccination? When will children under 12 years old be eligible?

Questions about COVID-19 vaccine safety and effectiveness

- What adverse events were reported during clinical trials for adolescents?
- What are the side effects that adolescents are most likely to experience and are they different from side effects adults experience?
- What allergic reactions could occur after vaccination, particularly among adolescents who have allergies?
- What long-term effects are possible? Have studies been done to assess long-term effects?
- How effective is the vaccine for adolescents? Could one dose be enough to protect against COVID-19?

Questions about COVID-19 risk and mitigation

- What is the risk of COVID-19, including severe illness, for adolescents?
- What role do adolescents play in community transmission and how they will help the United States reach population immunity by getting vaccinated?
- How do households with unvaccinated and vaccinated family members proceed regarding guidance for masking, physical distancing, and other mitigation measures?

Questions about vaccine administration

- What do I do if my child was administered a dose of a COVID-19 vaccine that was not authorized for their age, like Moderna COVID-19 Vaccine?
- Is it safe for my child to get a COVID-19 vaccine with an HPV vaccine?
- *From adolescents:* How can I get vaccinated without parental consent?

Questions about myocarditis or pericarditis following vaccination

- What is the rate of myocarditis following vaccination? How does this rate compare to the incidence of myocarditis among the general adolescent population?
 - Why has vaccination of adolescents not been paused, given this side effect/potential adverse event?
 - Are there special considerations for vaccination for adolescents who have pre-existing heart conditions?
- How serious is myocarditis and could it cause long-term heart damage?
- What are the symptoms of myocarditis? How can we tell if our adolescent may be having heart problems after vaccination?
- Should parents delay the 2nd vaccine dose if their adolescent has already received one dose of COVID-19 vaccine until more is known about the risk of myocarditis?
- Isn't myocarditis a common complication of COVID-19?
 - Did the adolescents with myocarditis after vaccination previously have COVID-19 or exposure to someone who did?
- Is myocarditis only a side effect with mRNA vaccines?
- How do I report a case of myocarditis after vaccination?

Ways to act:

- [Fill content gaps and information voids, particularly for parents.](#)

Ways to Act

Partner with healthcare professionals, particularly pediatricians and family practitioners.

- Empower healthcare professionals, particularly pediatricians and family practitioners, to relay information about COVID-19 vaccine effectiveness and vaccine safety to adolescents and their parents. Healthcare professionals should leverage every opportunity to talk with parents and adolescents about COVID-19 vaccination, including well visits, back-to-school visits, and sports physicals.
- Strengthen the [capacity of pediatricians, family practitioners, and healthcare providers](#) to have empathetic vaccine conversations with adolescents and their parents—with special attention to those families who might have differing opinions about the benefits of vaccination.
- Provide guidance about how to communicate with adolescents and parents who are worried about or experiencing myocarditis or pericarditis after vaccination.
- Provide guidance for healthcare professionals about communicating to adolescents and parents the importance of completing the two-dose vaccine series and the benefits of vaccination.
- Partner with healthcare professionals to better understand perceptions and opinions about COVID-19 vaccinations for adolescents, particularly if providers are hesitant to administer COVID-19 vaccines or discuss the benefits of vaccines with families.

Fill content gaps and information voids, particularly for parents.

- Expand web content on COVID-19 vaccines for adolescents to include additional frequently asked questions and better explain the risk of COVID-19 to adolescents and the benefits of vaccination.
- Expand web content related to cases of myocarditis and pericarditis following COVID-19 vaccination to include information about signs and symptoms and when to seek medical care, as well as a better explanation of what myocarditis and pericarditis are, how serious they are, and what is known about who might be at increased risk for experiencing an event.
- Expand and disseminate messaging about the side effects following vaccination, the need for two doses for best protection, and how to find a vaccine for adolescents.
- Disseminate messages about what an emergency use authorization is, how it works, and the difference between a fully licensed vaccine and a vaccine available under EUA.
- Develop content in a variety of styles, including easy-to-use graphics, videos, and social media content, to answer questions and fill information gaps.

Engage adolescents in learning about the importance of COVID-19 vaccination.

- Provide clarity about vaccine consent laws for minors. Promote step-by-step guides about the logistics of COVID-19 vaccination and state and local rules around parent involvement in vaccination.
- Bolster adolescents' capacity to have empathetic vaccine conversations with their friends and parents—including strategies for dispelling, debunking, and inoculating others against COVID-19 vaccine rumors and misinformation.
- Promote ways for adolescents to share their stories about vaccination and amplify their decision to get vaccinated against COVID-19.

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 misinformation 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.
- Amplify data to showcase the safety of co-administration of COVID-19 vaccines with other vaccines.
- Empower consumers to have effective, empathetic conversations about vaccines with family and friends online and offline.

Ways to Act (cont.)

Support strategies to better understand adolescent intentions to vaccinate.

- Support surveys and polling data to better understand adolescents' feelings and intentions toward COVID-19 vaccination. Use findings to develop resources for healthcare professionals, coaches, teachers, school administrators, and other trusted messengers to promote confidence in COVID-19 vaccines for adolescents.
- Bolster research about how fellow students and friend groups influence the decision to vaccinate. Data indicate that peer decision making and norms may be important motivators and key sources of information regarding the benefits of vaccination for adolescents. Promote successful strategies widely.

Disseminate messages focused on the importance of vaccination as an important tool to end the pandemic.

- Disseminate messages about the role that adolescents and children play in transmitting the virus that causes COVID-19 and the role that their vaccination will play in the goal of reaching population immunity.
- Disseminate messages that the integrity and transparency of safety monitoring systems will be maintained.
- Disseminate messages about how ACIP makes decisions and its 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.

Appendix: Inputs and Sources

Type	Input	Cadence	Sources	Tactics for Utilization
Social Media Listening & Media 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
	Crowd tangle	Daily	<ul style="list-style-type: none"> Facebook Instagram 	<ul style="list-style-type: none"> Sentiment analysis Identify information gaps/voids Identify mis/disinformation
	OADC Channel Comment Analysis	Daily	<ul style="list-style-type: none"> Native platform searches 	<ul style="list-style-type: none"> Sentiment analysis Identify message gaps/voids
Direct Reports	CDC-INFO Metrics	Weekly	<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
Research	Poll Review	Weekly	<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	<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
Third Party Reports	Tanaq Social Listening +Media Monitoring Report	Weekly	<ul style="list-style-type: none"> Meltwater Sprout Social First Draft Native platform searches 	<ul style="list-style-type: none"> Trending topics Demographic and geographic conversation monitoring
	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
	First Draft News Vaccine Misinformation Insights Report	Monthly	<ul style="list-style-type: none"> Proprietary methods 	<ul style="list-style-type: none"> Media trends analysis Emerging threats and data deficits Online vaccine narratives
	Project VCTR	Weekly	<ul style="list-style-type: none"> Proprietary methods 	<ul style="list-style-type: none"> National and regional trends in negative attitudes toward vaccination Conversations around Legislation
	Virality Project	Weekly	<ul style="list-style-type: none"> Proprietary methods 	<ul style="list-style-type: none"> Mis- and disinformation trends related to COVID-19 vaccine