



CDC's State of Vaccine Confidence Insights Report

Respiratory Viruses Special Report:
COVID-19, RSV, and Flu

November 13, 2023

Date Range: August 1 – August 31, 2023



**Center for Disease Control and Prevention
Immunization Services Division, Insights Unit**

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:** Public health officials are urging eligible individuals to get vaccinated against COVID-19, RSV, and flu and to immunize infants using monoclonal antibody.
- **Theme 2:** Consumers are becoming less concerned with COVID-19. Some social media users are reluctant to receive the updated COVID-19 booster for the 2023-2024 season.
- **Theme 3:** Consumers and social media users are discussing the recently FDA-approved RSV vaccines for pregnant individuals and adults 60 years of age and older.
- **Theme 4:** Consumers are concerned about side effects from flu vaccines. Additionally, social media users are discussing egg proteins present in flu vaccines.

Ways public health partners can take action to improve confidence in COVID-19, RSV, and flu vaccines:

- Promote vaccination for COVID-19, RSV, and flu, especially among people who are at high risk for COVID-19, RSV, and flu, such as older adults, young children, pregnant people, and individuals with underlying health conditions.
- Facilitate accessibility of vaccines and preventative antibodies to all communities, including populations that are medically underserved who may face barriers to healthcare access.
- Offer vaccines at convenient and accessible locations, such as clinics, pharmacies, workplaces, schools, and community centers. Provide flexible hours for vaccination clinics to accommodate various schedules and enable walk-in appointments to reduce barriers.
- Launch public awareness campaigns to educate the community about the risks associated with these viruses and the importance of vaccination, mask-wearing, and good hygiene practices.
- Acknowledge pandemic fatigue and empathize with people's concerns and frustrations. Reinforce the message that vaccination is a vital step toward decreasing risk of serious respiratory illness.
- Maintain surveillance systems to monitor the prevalence and spread of flu and RSV alongside COVID-19. This data can inform targeted interventions to increase vaccine uptake and vaccine confidence.
- Maintain transparent reporting of respiratory virus surveillance and vaccine effectiveness to keep the public informed and engaged in the mitigation efforts.

Resources: The following link contains graphics and assets partners can use to address the themes in this report: <https://centersfordiseasecontrol.sharefile.com/d-s3c8384e7f7eb413d92ae7b9731aaae13>



Contents








4	Aims and Methods	9	Consumers and social media users are discussing the recently FDA-approved RSV vaccines for pregnant individuals and adults over 60 years of age.
5	Public health officials are urging eligible individuals to get vaccinated against COVID-19, RSV, and flu and to immunize infants with monoclonal antibody.	9	Public Perceptions, Concerns, and Threats to Vaccine Confidence
5	Public Perceptions, Concerns, and Threats to Vaccine Confidence	10	Common Questions and Queries from the Public
5	Commonly Asked Questions and Queries from the Public	11	Inaccurate Health Information Themes
6	Inaccurate Health Information Themes	12	Consumers are concerned about side effects from flu vaccines. Additionally, social media users are discussing egg proteins present in flu vaccines.
6	Consumers are becoming less concerned with COVID-19. Some social media users are reluctant to receive the 2023-2024 updated COVID-19 booster for the 2023-2024 season.	12	Public Perceptions, Concerns, and Threats to Vaccine Confidence
6	Public Perceptions, Concerns, and Threats to Vaccine Confidence	12	Common Questions and Queries from the Public
8	Commonly Asked Questions and Queries from the Public	13	Inaccurate Health Information Themes
8	Inaccurate Health Information Themes	14	Ways public health partners can take action to improve confidence in RSV, flu, and COVID-19 vaccines
		15	References



Aims and Methods

By rapidly reviewing and analyzing numerous specific sources and inputs, this State of Vaccine Confidence Insights Report emphasizes major themes influencing RSV, COVID-19, and flu vaccine confidence and uptake among adults. In addition, by examining how consumers think and feel, social processes, and the practical issues around vaccination, this Insights Report seeks to identify emerging issues related to the spread of inaccurate health information to help identify where intervention efforts can improve vaccine confidence. Data for this report was specially gathered during the beginning of the fall and winter respiratory virus season to help analyze vaccine confidence themes among adults.

The information in this report is only a snapshot, and specific 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"> May lead to vaccine refusals and decreased uptake Wide reach, pervasive 	<ul style="list-style-type: none"> Potential to trigger hesitancy to vaccination Moderate reach, modest dissemination 	<ul style="list-style-type: none"> Concerning, but low risk to vaccine confidence Limited reach, limited dissemination 	<ul style="list-style-type: none"> Could increase vaccine confidence, intent, or motivation Variable reach and dissemination
How has this theme/idea changed over time (since last report or over the course of multiple reports)?			
			
<p>Increasing</p> <p>Information spreading rapidly</p>	<p>Stable</p> <p>Information remaining constant at prior level</p>	<p>Decreasing</p> <p>Information is not gaining further traction and there has been no indication of additional activity</p>	

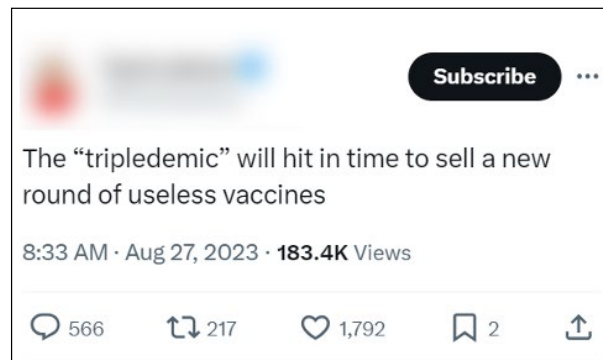


Public health officials are urging eligible individuals to get vaccinated against COVID-19, RSV, and flu and to immunize infants using monoclonal antibody.

Along with seasonal influenza virus (flu) and respiratory syncytial virus (RSV), SARS-CoV-2 has become a part of the respiratory virus season.¹ These respiratory viruses could pose a formidable challenge to public health and healthcare systems nationwide this fall/winter season. Experts emphasize the urgent need for preventive measures, such as vaccination, mask-wearing, and good hygiene to decrease the spread of disease. Vaccines are available to protect against COVID-19, RSV, and flu. For infants, passive immunization for RSV with preventive antibodies is available. Recommendations for each vaccine differ, but they are all available for the most vulnerable populations.

Public Perceptions, Concerns, and Threats to Vaccine Confidence

- According to the C.S. Mott Children's Hospital National Poll on Children's Health published in August 2023, fewer parents ranked vaccine safety (18%) and COVID-19 (12%) as a "big problem" compared with other child health concerns, such as screen time and depression/suicide.²
- Sterling Ransone, board chair of the American Academy of Family Physicians, named "cost" as the top barrier for parents to seek routine childhood immunization for their children.³
- Prominent public health figures have published news articles and posted on social media to urge consumers to receive vaccines for COVID-19, RSV, and flu, if eligible.^{4,5,6}
- Some social media users, including some physicians, are promoting "natural" remedies, such as elderberry, as safe and effective alternatives to vaccination.^{7,8,9}



Commonly Asked Questions and Queries from the Public

- Why should individuals be concerned about respiratory virus season?
 - It is common to get sick from respiratory illnesses such as [COVID-19](#), [flu](#), and [respiratory syncytial virus \(RSV\)](#), especially in the fall and winter. There are actions you can take to protect yourself and others from respiratory infections, such as vaccination, handwashing, cleaning, masks, masking, physical distancing, testing, and air quality improvements.¹⁰
- Can COVID-19, RSV, and flu vaccines be co-administered?^{11,12}
 - Administration of RSV vaccine on the same day with other needed vaccines is acceptable. However, according to results of coadministration studies of RSV vaccines with influenza vaccines, common side effects such as fever and soreness at the injection site may be increased when these two vaccines are administered at the same healthcare visit. Some studies also suggest it's possible that the immune response to flu vaccine may not be as strong if given on the same day with RSV vaccine, but the clinical significance of this is unknown. Additional research is ongoing to inform guidance on coadministration of RSV vaccine and other adult vaccines, including COVID-19 vaccine.¹³



- Flu vaccines and COVID-19 vaccines can be given at the same visit if you are due for both vaccines.¹⁴

Inaccurate Health Information Themes

- Some social media users believe a likely circulation of SARS-CoV-2, RSV, and influenza virus at the same time is not real and that pharmaceutical companies created the idea to sell more vaccines.^{15,16,17}

Consumers are becoming less concerned with COVID-19. Some social media users are reluctant to receive the 2023-2024 updated COVID-19 booster for the 2023-2024 season.

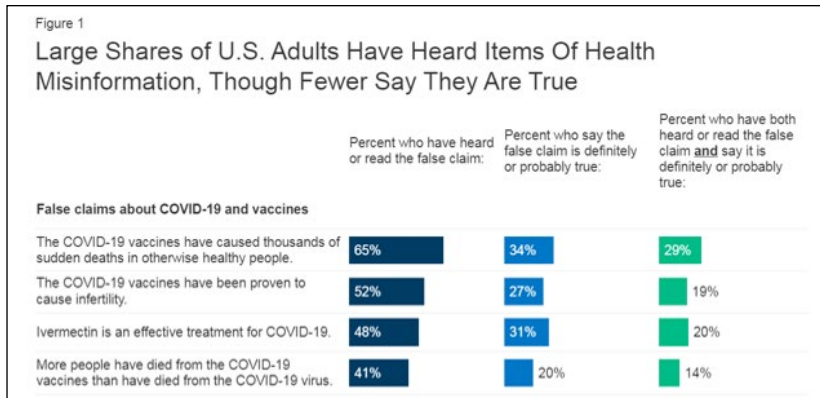
After experiencing COVID-19 vaccination campaigns for the original vaccine series, original vaccine booster(s), and the bivalent vaccine, along with the continued identification of many SARS-CoV-2 variants, some individuals are experiencing a sense of weariness and hesitation to get an updated 2023-24 COVID-19 vaccine. This hesitancy, compounded by fears of possible vaccine side effects and beliefs of vaccine ineffectiveness, underscores the complex task of achieving high vaccine uptake for the updated COVID-19 vaccine available for the 2023-2024 season.

Public Perceptions, Concerns, and Threats to Vaccine Confidence

- In a Yahoo-YouGov news survey of 1,665 adults from August 17 to August 21, 31% of respondents were worried about COVID-19, while 69% were not worried, including 35% of respondents who said they were not worried at all.¹⁸
- Additionally, 63% of respondents reported they do not follow the number of COVID-19 cases very closely or at all, compared to 33% of respondents who follow the number of COVID-19 cases very or somewhat closely.
- Thirty-four percent of surveyed adults reported previously receiving COVID-19 booster doses and are willing to receive another one, while 9% had previously received boosters but would not be willing to receive another COVID-19 vaccine dose. Fifty-seven percent of respondents who had received a primary series reported they had not received any COVID-19 booster dose.¹⁸
- Of respondents ages 65 years and older, 50% said they were keeping up with reports noting COVID-19 levels and 57% of respondents reported they would receive an updated 2023-24 COVID-19 vaccination.¹⁸
- The August 2023 KFF Health Misinformation Tracking Poll Pilot showed that many adults in the United States have heard misinformation about COVID-19 and vaccines.¹⁹
- Sixty-five percent of adults have heard or read the false claim that COVID-19 vaccines have caused thousands of sudden deaths in otherwise healthy people. Thirty-four percent of respondents say the false claim is definitely or probably true, and 29% have both heard or read this false claim and say it is definitely or probably true.¹⁹



- 52% of adults have heard or read the false claim that COVID-19 vaccines have been proven to cause infertility. Twenty-seven percent of respondents say the false claim is definitely or probably true, and 19% have both heard or read this false claim and say it is definitely or probably true.¹⁹



- 41% of adults have heard or read the false claim that more people have died from COVID-19 vaccines than have died from COVID-19. Twenty percent of respondents say the false claim is definitely or probably true, and 14% have both heard or read this false claim and say it is definitely or probably true.¹⁹

- Some social media users are concerned the SARS-CoV-2 sub lineage BA.2.86 variant is more capable of causing infection in people who have previously had COVID-19 or who have received COVID-19 vaccines.^{20,21,22,23}

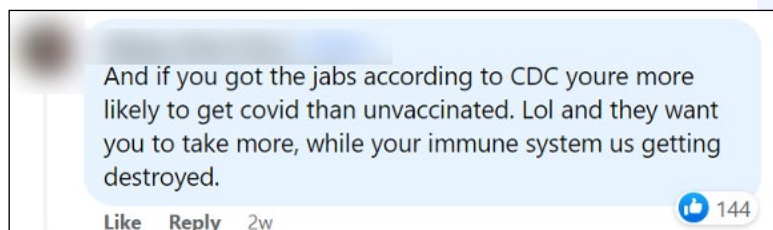
- This may be a response to the phrase, “BA.2.86 may be more capable of causing infection in people who have previously had COVID-19 or who have received COVID-19 vaccines” in CDC’s [Risk Assessment Summary for SARS-CoV-2 Sublineage BA.2.86](#) webpage. Although not clear from the website language, the phrase is meant to convey that those who have been vaccinated or previously infected may be more susceptible to that variant than they were to prior variants.²⁴

- In response to the updated COVID-19 vaccine for the 2023-2024 season, some social media users are expressing weariness about the ongoing need for updated COVID-19 vaccines.^{25,26}

- Some social media users are stating they will refuse the 2023-2024 updated COVID-19 vaccine and have refused all COVID-19 vaccines thus far, touting their status as “purebloods.”^{27,28,29}

- Some social media users are sharing skepticism and anecdotes of adverse events they believed were triggered by COVID-19 vaccines.^{30,31,32}

- As the 2023-2024 school year begins, social media users are sharing their concern regarding vaccinating children against COVID-19. Users claim COVID-19 vaccines are not necessary nor effective and are concerned about harmful side effects, such as myocarditis and blood clots.^{33,34,35}



- Cases of myocarditis and pericarditis have rarely been observed following receipt of COVID-19 vaccines used in the United States. Evidence from multiple monitoring systems in the United States and around the globe support a causal association between some mRNA COVID-19 vaccines (i.e. made by Moderna or Pfizer-BioNTech) and myocarditis and pericarditis with the highest risk among males age 12-39 years.³⁶

- Social media users are concerned there will be a nationwide mandate for the 2023-2024 updated COVID-19 vaccine. Many are stating they will not comply with any vaccine mandates.^{37,38,39,40}



Commonly Asked Questions and Queries from the Public

- Will the updated COVID-19 vaccine for the 2023-2024 season be free?
 - CDC's Bridge Access Program provides no-cost COVID-19 vaccines to adults without health insurance and adults whose insurance does not cover all COVID-19 vaccine costs. No-cost COVID-19 vaccines through this program will be available until December 31, 2024.⁴¹
 - You can get no-cost COVID-19 vaccines at healthcare providers, federally supported health centers, and retail pharmacy chains participating in the Bridge Access Program. Visit [vaccines.gov](https://www.vaccines.gov) to find providers that offer no-cost COVID-19 vaccines through the Bridge Access Program. Providers participating in the Bridge Access Program are contractually obligated to add vaccine availability to [vaccines.gov](https://www.vaccines.gov). We expect reported availability to increase in the coming days.⁴¹
- Where can I find COVID-19 vaccines?
 - Use Vaccines.gov to find a nearby location, including vaccine options for children and adults. Contact information for vaccination locations is provided on the website.⁴²
- Why do individuals need to receive the 2023-2024 updated COVID-19 vaccine if they've already received previous booster doses?
 - The virus that causes COVID-19 is always changing, and protection from both COVID-19 vaccines and from natural infection decline over time. Receiving an updated 2023-24 COVID-19 vaccine can provide better protection against the variants currently responsible for most infections and hospitalizations in the United States.⁴³ The updated COVID-19 vaccines have been updated to include a monovalent (single) component that corresponds to the Omicron variant XBB.1.5.⁴⁴
- Who is eligible for the 2023-2024 updated COVID-19 vaccine for the fall 2023-2024 season?
 - CDC recommends everyone 6 months and older get an updated COVID-19 vaccine to protect against the potentially serious outcomes of COVID-19 illness this fall and winter. Updated COVID-19 vaccines from Moderna, Novavax, and Pfizer-BioNTech are now available.⁴³

Inaccurate Health Information Themes

- Some social media users claim receiving multiple COVID-19 booster doses is ineffective and overall harmful.^{45,46,47}
- Using the hashtag #died suddenly, some social media users believe COVID-19 vaccines can cause death.^{48,49,50}
- The erroneous belief that vaccinated individuals are causing the new COVID-19 variants is circulating on social media.⁵¹
- Some social media users believe COVID-19 vaccines are not safe for children because they have not finished clinical trials. Additional social media users believe future COVID-19 vaccines are not safe because the Food and Drug Administration (FDA), the agency that authorizes or approves vaccines, considers the 2023-2024 vaccine update to be a minor change that does not require new clinical trials.^{52,53,54}
- Some social media users believe vaccinated individuals are more likely to get COVID-19 than unvaccinated individuals.^{20,21,22,23}
- Some social media users believe there is an 2023-2024 updated COVID-19 vaccine because previous formulas for COVID-19 vaccines were ineffective.^{55,56,57}

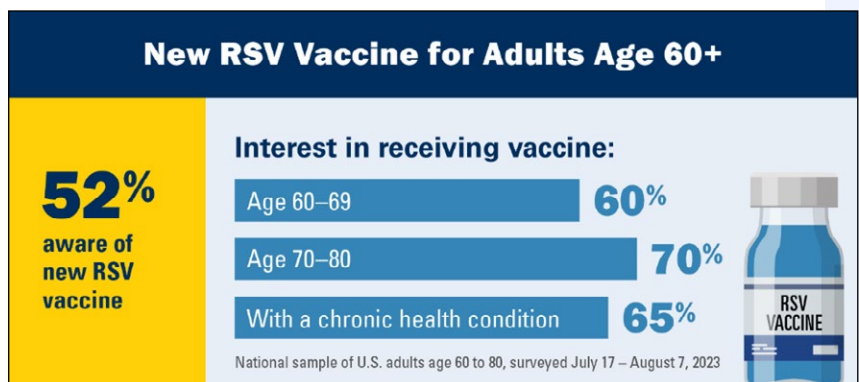


Consumers and social media users are discussing the recently FDA-approved RSV vaccines for pregnant individuals and adults over 60 years of age.

In May 2023, two RSV vaccines—[GSK’s Arexvy](#) and [Pfizer’s Abrysvo \(RSVpreF\)](#)—received FDA approval for individuals aged 60 years and older for prevention of RSV lower respiratory tract disease (LRTD). In August 2023, the U.S. Food and Drug Administration approved Abrysvo as the first vaccine for use in pregnant individuals to prevent LRTD and severe LRTD caused by respiratory syncytial virus (RSV) in infants from birth through 6 months of age. Abrysvo is approved for use at 32 through 36 weeks gestational age of pregnancy and should be administered seasonally.^{58,59}

Public Perceptions, Concerns, and Threats to Vaccine Confidence

- Results of a CDC and University of Iowa/RAND survey on RSV immunizations to prevent RSV disease in infants showed a third of respondents thought their infant would “definitely or probably” be infected with RSV within a year, while 70% reported they “definitely or probably” would get an RSV antibody injection for their baby if safe and effective.⁶⁰
- Some consumers are confused about the difference between RSV preventative monoclonal antibodies and RSV vaccines.^{61,62,63}
- According to data from the National Poll on Healthy Aging, about half (52%) of adults from 60 to 80 years of age have heard about the new RSV vaccines.⁶⁴
 - Additionally, 21% of these respondents reported they were very interested in RSV vaccines, while 43% said they were somewhat interested.⁶⁴
 - Only 41% of respondents who classified their health as fair or poor had heard of RSV vaccines, compared to 53% of adults who rated their health as good to excellent.
 - More than 65% of respondents with a chronic health condition said they were very or somewhat interested in receiving an RSV vaccine, regardless of whether they had previously heard of the vaccines prior to the poll.⁶⁴
- Some social media users are concerned RSV vaccination during pregnancy will cause adverse events such as birth defects, stillbirths, and premature birth.^{65,66} This might be related to concern expressed by the Vaccines and Related Biological Products Advisory Committee (VRBPAC) and the Advisory Committee on Immunization Practices (ACIP) over premature births linked to RSV vaccination in clinical trials.^{67,68}
- Individuals on social media are posting their distrust of pharmaceutical companies following FDA approval of RSV vaccines for both older populations and pregnant people.^{69,70} Consumers perceiving vaccines as a way to increase profits for pharmaceutical companies, instead of a vital preventive health measure, may decrease vaccine confidence and hinder RSV vaccine uptake.



- Individuals are using social media to share their negative experiences and opinions from the COVID-19 pandemic, dissuading others from receiving RSV vaccines.^{71,72,73}
- Some public health figures are concerned about the cost of RSV vaccines.⁷⁴

Commonly Asked Questions and Queries from the Public

- How much will RSV vaccines cost consumers?⁷⁵
 - The Inflation Reduction Act of 2022 states that vaccines covered under Medicare prescription drug plans (Part D) and Medicaid are free in 2023, meaning there are no co-payments or deductibles for individuals for any vaccines recommended by ACIP.⁷⁶ RSV vaccines are covered under Medicare Part D.
 - Medicare enrollees without a Part D plan may have to pay for the RSV vaccine out of pocket.⁷⁷
 - Older adults without health insurance coverage may experience financial hardship obtaining an RSV vaccine.⁷⁸
 - State Medicaid agencies must cover approved adult ACIP-recommended vaccinations, including those not found on the adult immunization schedule or considered routine, without cost-sharing for most beneficiaries. For adults in the Affordable Care Act (ACA) adult group who receive all essential health benefits (EHB), states must cover all ACIP-recommended vaccinations found on the CDC/ACIP adult immunization schedule, without cost-sharing.⁷⁹
- Is the RSV vaccine an mRNA vaccine?⁸⁰
 - Both vaccines are recombinant protein vaccines that cause the immune system to produce RSV antibodies. Both are currently approved as a single dose and were shown in clinical trials protect against symptomatic lower respiratory tract disease caused by RSV in adults ages 60 and older, with more than 80% percent efficacy in the first RSV season after vaccination. GSK's vaccine includes an adjuvant (the same adjuvant used in GSK's recombinant zoster vaccine [Shingrix]), which is a component that is intended to enhance the immune response to vaccination. Pfizer's vaccine does not contain an adjuvant.^{81,82}
- Who should get the RSV vaccine?
 - People who are 32 through 36 weeks pregnant during September through January should get one dose of maternal RSV vaccine to protect their babies. RSV season can vary around the country. If you live in Alaska, Florida, or outside the continental U.S., talk to your healthcare provider about when RSV season is expected where you live.⁸³
 - CDC recommends that adults 60 years of age and older may receive a single dose of RSV vaccine using shared clinical decision-making (SCDM). This means that the decision to vaccinate a patient should be based on a discussion between the health care provider and the patient, which might be guided by the patient's risk for disease and their characteristics, values, and preferences; the provider's clinical discretion; and the characteristics of the vaccine.^{84,85}
- [How can parents protect infants against RSV?](#)⁸⁶
 - There are two RSV antibody products that can help prevent severe RSV disease in infants and young children: Nirsevimab (Beyfortus), and Palivizumab (Synagis).⁸⁶

Some Older Adults Are Being Charged Over \$300 for the New R.S.V. Vaccine

The shot is covered by Medicare Part D, but some with private prescription drug coverage are being asked to pay out of pocket.



- Nirsevimab is recommended for all infants younger than 8 months of age born during RSV season or entering their first RSV season. Except in rare circumstances, most infants younger than 8 months of age do not need nirsevimab if they were born 14 or more days after their mother got RSV vaccine. Nirsevimab is also recommended for Some children aged 8 through 19 months who are [at increased risk for severe RSV disease](#) and entering their second RSV season.⁸⁶
- Palivizumab (Synagis) use is limited to some children younger than age 24 months of age with certain conditions that place them at increased risk for severe RSV disease. It must be given once a month during RSV season.⁸⁶
- If nirsevimab is not available, high-risk infants who are recommended to receive palivizumab in the first or second year of life should receive palivizumab, as previously recommended, until nirsevimab becomes available.⁸⁷
- What are the side effects of the RSV vaccine?
 - Pain, redness, and swelling where the shot is given, fatigue (feeling tired), fever, headache, nausea, diarrhea, and muscle or joint pain can happen after RSV vaccination.⁸⁸
 - Serious neurologic conditions, including Guillain-Barré syndrome (GBS), have been reported after RSV vaccination in clinical trials of older adults. Due to the small number of events, it is unclear whether these events occurred due to chance, or whether RSV vaccination increases the risk of these events.^{84,88}
 - In clinical trials of older adults, atrial fibrillation was reported in a higher number of participants who received RSV vaccination than in those who received placebo. Due to the small number of events, it is unclear whether these events occurred due to chance, or whether RSV vaccination increases the risk of these events.⁸⁴
 - Preterm birth and high blood pressure during pregnancy, including pre-eclampsia, have been reported among pregnant people who received RSV vaccine during clinical trials. It is unclear whether these events were caused by the vaccine.⁸⁸

Inaccurate Health Information Themes

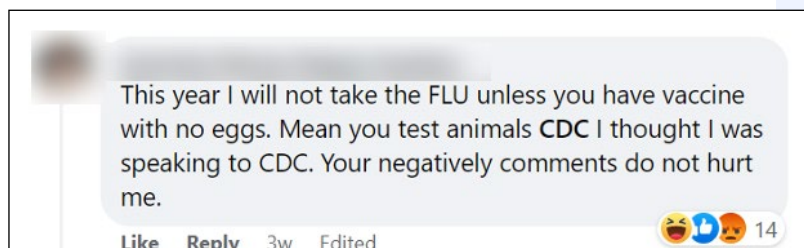
- Some social media users believe RSV vaccines were created to depopulate the planet.^{89,90}
- RSV vaccines had to be developed only because widespread COVID-19 vaccination created RSV.^{91,92,93}
- Some social media users believe RSV vaccines are not safe for pregnant individuals and their developing fetuses.^{94,95,96}
- Some social media users believe RSV vaccine did not undergo adequate testing and clinical trials before FDA approval.^{97,98,99}
- Some social media users believe RSV vaccine may cause death.^{100,101,102}

Consumers are concerned about side effects from flu vaccines. Additionally, social media users are discussing egg proteins present in flu vaccines.

Although some consumers have made it a habit to receive annual influenza vaccine, some are expressing reluctance. Some social media users are concerned about potential side effects of flu vaccination and the presence of egg proteins in some flu vaccines. This apprehension can result in decreased vaccine confidence and uptake. Public health experts continually emphasize the importance of annual flu vaccinations, assuring the public of the vaccines' safety and effectiveness in preventing serious illness and hospitalization associated with influenza. Additionally, ongoing research has led to the development of egg-free vaccine alternatives, although for all influenza vaccines, egg allergy is not a contraindication to influenza vaccination.¹⁰³

Public Perceptions, Concerns, and Threats to Vaccine Confidence

- Some consumers and social media users are concerned about egg proteins present in influenza vaccines,^{12,104} including vegans who are using social media to share that flu vaccines are not plant-based.^{105,106} However, the updated ACIP recommendations, as well as many news articles and social media users, are assuring the public it is safe for individuals with egg allergies to receive flu vaccines, without taking any additional safety measures beyond those recommended for all vaccines.^{107,108,109} These online discussions may be in response to [updated CDC guidance](#) regarding flu vaccine and people with egg allergies.
- The FDA and some social media users are urging individuals to receive an influenza vaccine given that influenza viruses can change from year to year and protection from vaccination wanes over time.^{110,111,112} [ACIP recommends routine annual influenza vaccination for all persons aged 6 month or older who do not have contraindications.](#)¹⁰³
- Some social media users are sharing their belief that it is not worthwhile to receive flu vaccine because it is still possible to get flu.¹¹³
- Some social media users are concerned receiving a flu vaccine will result in a worse case of flu than they would have had if they not been vaccinated.^{114,115,116}
- Individuals are using social media to share adverse events caused by flu vaccines.^{117,118}



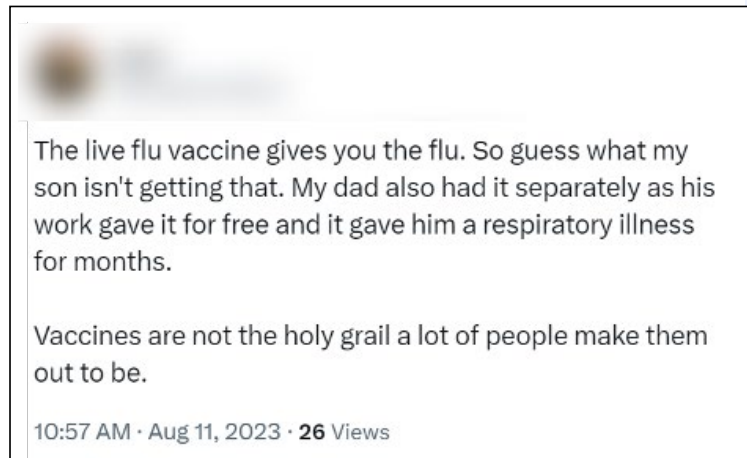
Commonly Asked Questions and Queries from the Public

- Can individuals with egg allergies receive the flu vaccine?
 - Everyone who is 6 months and older should receive an annual flu vaccine, including persons with egg allergy. Any flu vaccine (egg-based or non-egg-based) that is otherwise appropriate for the recipient's age and health status can be used. Vaccinating a person with egg allergy does not require any additional safety measures for flu vaccination beyond those recommended for any vaccination, regardless of severity of previous reaction to egg.¹¹⁹
 - Severe and life-threatening reactions to vaccines are rare but can occur with any vaccine and



in any vaccine recipient, regardless of allergy history. All vaccines should be administered in settings in which personnel and equipment needed for rapid recognition and treatment of acute hypersensitivity reactions are available.¹¹⁹

- When will flu vaccines be available?¹²⁰
 - Influenza vaccine distribution has begun for the 2023-2024 influenza season. People should consult [CDC's guidance](#) on the best timing for getting their flu vaccine.¹²¹
- Where can individuals find flu vaccines?
 - Individuals can go to [Vaccines.gov](#) and select "Find Flu Vaccines."⁴²
- What are side effects of flu vaccines?
 - Like any medical product, vaccines can cause side effects. Side effects of flu vaccine are generally mild and go away on their own within a few days.¹²²
 - Common side effects from a flu shot include soreness, redness, and/or swelling from the shot, headache, fever, nausea, and muscle aches, and can occasionally include fainting.¹²²
 - Some studies have found a possible small association of injectable flu vaccine with Guillain-Barré syndrome (GBS). Overall, these studies estimated the risk for GBS after vaccination as fewer than 1 or 2 cases of GBS per one million people vaccinated. Other studies have not found any association. GBS is more common following flu illness than following flu vaccination although both occurrences are rare. GBS has not been associated with the nasal spray vaccine.¹²²
- Is it possible to get the flu from flu vaccines?
 - No, flu vaccines cannot cause flu. The vaccines either contain inactivated virus, meaning the viruses are no longer infectious, or a particle designed to look like a flu virus to your immune system. While the nasal spray flu vaccine does contain a live virus, the viruses are changed so that they cannot give you flu.¹²²



Inaccurate Health Information Themes

- Some social media users believe receiving flu vaccine can cause or increase chances of flu.^{123,124,125,126,127}
- Some social media users believe flu vaccines are only recommended to increase profits for pharmaceutical companies.^{128,129}
- Some social media users believe flu vaccines are ineffective for children and older populations.^{130,131}



Ways public health partners can take action to improve confidence in COVID-19, RSV, and flu vaccines

- Promote vaccination for COVID-19 among persons 6 months and older, seasonal flu among persons 6 months and older, and RSV for pregnant women and, based on shared clinical decision making, for adults 60 years and older. Promote immunization with monoclonal antibody for infants.
- Promote vaccines and other preventive immunizations, especially for those at highest risk of severe illness, such as the elderly, infants and young children, pregnant people, and individuals with underlying health conditions.
- Facilitate accessibility of vaccines and preventative antibodies to all communities, including populations that are medically underserved who may face barriers to healthcare access.
- Offer vaccines at convenient and accessible locations, such as clinics, pharmacies, workplaces, schools, and community centers. Provide flexible hours for vaccination clinics to accommodate various schedules and enable walk-in appointments to reduce barriers.
- Launch public awareness campaigns to educate the community about the risks associated with these viruses and the importance of vaccination, mask-wearing, and good hygiene practices.
- Acknowledge pandemic fatigue and empathize with people's concerns and frustrations. Reinforce the message that vaccination is a vital step toward decreasing risk of serious respiratory illness.
- Maintain surveillance systems to monitor the prevalence and spread of flu and RSV alongside COVID-19. This data can inform targeted interventions to increase vaccine uptake and vaccine confidence.
- Maintain transparent reporting of respiratory virus surveillance and vaccine effectiveness to keep the public informed and engaged in the mitigation efforts.



References

Note: Omitted numbers are social media citations, which can be found in [this online document](#).

1. Centers for Disease Control and Prevention. (2023, September 29). *What's New: 2023-2024 Flu Season Outlook*. <https://www.cdc.gov/respiratory-viruses/whats-new/2023-2024-season-outlook.html>
2. C.S. Mott Children's Hospital National Poll on Children's Health. (2023, August 21). *Overuse of Devices and Social Media Top Parent Concerns*. <https://mottpoll.org/reports/overuse-devices-and-social-media-top-parent-concerns>
3. Choi, J. (2023, August 6). *Childhood vaccinations falter ahead of crucial fall season*. The Hill. <https://thehill.com/policy/healthcare/4138265-childhood-vaccinations-falter-ahead-of-crucial-fall-season/>
4. Emanuel, E. J. (2023, July 31). *You can finally ignore COVID with a few basic steps*. The Boston Globe. <https://www.bostonglobe.com/2023/07/31/opinion/you-can-finally-ignore-covid-with-few-basic-steps/?event=event12>
10. Centers for Disease Control and Prevention. (2023, October 13). *Protect yourself from COVID-19, Flu, and RSV*. <https://www.cdc.gov/respiratory-viruses/index.html>
11. Appleby, J. (2023, August 23). *Timing and cost of new vaccines vary by virus and health insurance status. What to Know*. KFF Health News via USA Today. <https://www.usatoday.com/story/news/nation/2023/08/23/vaccines-covid-rsv-flu-vary-on-timing-cost-insurance/70620867007/>
12. Cann, C. (2023, August 24). *Flu season recommendations: CDC announces flu shot recommendations*. USA Today. <https://www.usatoday.com/story/news/health/2023/08/24/flu-season-recommendations-from-cdc-released/70658906007/>
13. Centers for Disease Control and Prevention. (2023, October 13). *Frequently Asked Questions About RSV Vaccine for Adults*. <https://www.cdc.gov/vaccines/vpd/rsv/hcp/older-adults-faqs.html>
14. Centers for Disease Control and Prevention. (2022, October 25). *Getting a Flu Vaccine and a COVID-19 Vaccine at the Same Time*. <https://www.cdc.gov/flu/prevent/coadministration.htm>
18. Yahoo!. (2023, August 21). *Yahoo! News Survey - 20230821*. https://docs.cdn.yougov.com/fpmrgam522/20230821_yahoo_results.pdf
19. Lopes, L., Valdes, I., & Yilma, H. (2023, August 22). *KFF Health Misinformation Tracking Poll Pilot*. Kaiser Family Foundation. <https://www.kff.org/coronavirus-covid-19/poll-finding/kff-health-misinformation-tracking-poll-pilot/>
24. Associated Press. (2023, August 24). *The CDC didn't say vaccinated people are more at risk of a new COVID variant than the unvaccinated*. [News article]. <https://apnews.com/article/fact-check-covid-variant-vaccinated-unvaccinated-cdc-895117372555>



36. Centers for Disease Control and Prevention. (2023, October 13). *Clinical Considerations: Myocarditis after COVID-19 Vaccination*. <https://www.cdc.gov/vaccines/covid-19/clinical-considerations/myocarditis.html>
41. Centers for Disease Control and Prevention. (2023). Bridge Access Program. <https://www.cdc.gov/vaccines/programs/bridge/index.html>
42. U.S. Department of Health and Human Services. (n.d.). Vaccines.gov. <https://www.vaccines.gov/>
43. Centers for Disease Control and Prevention. (2023, September 12). *CDC recommends updated COVID-19 vaccine for fall/winter virus season*. [Press release]. <https://www.cdc.gov/media/releases/2023/p0912-COVID-19-Vaccine.html>
44. U.S. Food and Drug Administration. (2023, August 31). *FDA takes action to update mRNA COVID-19 vaccines to better protect against currently circulating BA.4 and BA.5 subvariants*. [Press release]. <https://www.fda.gov/news-events/press-announcements/fda-takes-action-updated-mrna-covid-19-vaccines-better-protect-against-currently-circulating>
54. Centers for Disease Control and Prevention. (2023, October 13). *5 Things You Should Know about COVID-19 Vaccines*. <https://www.cdc.gov/respiratory-viruses/whats-new/5-things-you-should-know.html>
58. U.S. Food and Drug Administration. (2023, August 21). *FDA approves first vaccine for pregnant individuals to prevent RSV in infants*. [Press release]. <https://www.fda.gov/news-events/press-announcements/fda-approves-first-vaccine-pregnant-individuals-prevent-rsv-infants>
59. Pfizer Laboratories Division. (2023, August 4). *ABRYSVO Full Prescribing Information*. Pfizer, Inc. <https://labeling.pfizer.com/ShowLabeling.aspx?id=19589>
60. Jones, J. (2023, August 3). Evidence to Recommendations Framework: Nirsevimab Updates. [Powerpoint slides] Centers for Disease Control and Prevention: National Center for Immunization and Respiratory Diseases: Coronavirus and Other Respiratory Viruses Division. <https://www.cdc.gov/vaccines/acip/meetings/downloads/slides-2023-08-3/02-RSV-jones-508.pdf>
61. Sanger-Katz, M. (2023, August 4). *New RSV shots could give parents peace of mind or sow more vaccine confusion*. Axios. <https://www.axios.com/2023/08/04/new-rsv-shots-could-give-parents-peace-of-mind-or-sow-more-vaccine-confusion>
63. Children's Hospital of Philadelphia. (2023, August 22). RSV Vaccine and Monoclonal Antibody. <https://www.chop.edu/centers-programs/vaccine-education-center/vaccine-details/rsv-vaccine-mono-clonal-antibody>
64. Malani, P. (2023, August 22). *Many older adults want RSV vaccine, poll shows*. University of Michigan National Poll on Healthy Aging. <https://www.healthyagingpoll.org/reports/many-older-adults-want-rsv-vaccine-poll-shows>



67. Baletti, B. (2023, August 23). *FDA Shrugs Off Concerns About Premature Births, Approves Pfizer RSV Vaccine for Pregnant Women*. Children's Health Defense. <https://childrenshealthdefense.org/defender/fda-pfizer-rsv-vaccine-pregnancy/>
68. Fleming-Dutra, K. E. (2023, September 22). Evidence to Recommendations Framework Updates Pfizer Maternal RSVpreF Vaccine [Powerpoint slides]. Centers for Disease Control and Prevention: National Center for Immunization and Respiratory Diseases. <https://www.cdc.gov/vaccines/acip/meetings/downloads/slides-2023-09-22/06-Mat-Peds-Fleming-Dutra-508.pdf>
76. Inflation Reduction Act of 2022, H.R. 537, 117th Congress. (2021-2022). <https://www.congress.gov/bill/117th-congress/house-bill/5376/text>
77. Smith, D. G. (2023, August 25). Some Older Adults Are Being Charged Over \$300 for the New R.S.V. Vaccine. *The New York Times*. <https://www.nytimes.com/2023/08/25/well/live/rsv-vaccines-health-insurance-medicare.html>
78. Centers for Disease Control and Prevention. (2023, July 20). ACIP evidence to recommendations for use of Pfizer bivalent RSVpreF vaccine (ABRSYVO) in older adults. Retrieved from <https://www.cdc.gov/vaccines/acip/recs/grade/rsv-older-adults.html>
79. Centers for Medicare & Medicaid Services. (2023, June). *Quality of Care Vaccines*. <https://www.medicare.gov/medicaid/quality-of-care/improvement-initiatives/vaccines>
81. Pfizer, Inc. (2023, May 18). Vaccines and Related Biological Products Advisory Committee Meeting Briefing Document- FDA [Meeting Briefing Document]. U.S. Food and Drug Administration. <https://www.fda.gov/media/168185/download>
82. Centers for Disease Control and Prevention. (2023, August 30). *Frequently Asked Questions About RSV Vaccine for Adults*. <https://www.cdc.gov/vaccines/vpd/rsv/hcp/older-adults-faqs.html>
83. Centers for Disease Control and Prevention. (2023, September 28). *RSV Vaccination for Pregnant People*. <https://www.cdc.gov/vpd/rsv/pregnancy/index.html>
84. Centers for Disease Control and Prevention. (2023, August 4). *Healthcare providers: RSV vaccination for adults 60 years of age and over*. <https://www.cdc.gov/vpd/rsv/hcp/adults.html>
85. Melgar, M., Britton, A., Roper, L. E., Talbot, H. K., Long, S. S., Kotton, C. N., & Havers, F. P. (2023). Use of Respiratory Syncytial Virus Vaccines in Older Adults: Recommendations of the Advisory Committee on Immunization Practices — United States, 2023. *Morbidity and Mortality Weekly Report*, 72(29), 793–801. <https://doi.org/10.15585/mmwr.mm7229a4>
86. Centers for Disease Control and Prevention. (2023, September 28). *RSV Vaccination for Children 19 Months and Younger*. <https://www.cdc.gov/vaccines/vpd/rsv/public/child.html>
87. American Academy of Pediatrics. (2023, August 15). *ACIP and AAP Recommendations for Nirsevimab*. <https://publications.aap.org/redbook/resources/25379>



88. Centers for Disease Control and Prevention. (2023, October 19). *Respiratory Syncytial Virus (RSV) Vaccine VIS*. <https://www.cdc.gov/vaccines/hcp/vis/vis-statements/rsv.html>
103. Centers for Disease Control and Prevention. (2023, August 4). *Summary of Recommendations: Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices (ACIP)—United States, 2023–24*. <https://www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/flu.html>
108. Gore, L. (2023, August 15). Flu vaccine recommendations change for 2023-2024, CDC announces. *AL.com*. <https://www.al.com/news/2023/08/flu-vaccine-recommendations-change-for-2023-2024-cdc-announces.html>
109. CDC has updated flu vaccine guidance for those with egg allergies. (2023, August 16). *KSBY News*. <https://www.ksby.com/cdc-has-updated-flu-vaccine-guidance-for-those-with-egg-allergies>
119. Centers for Disease Control and Prevention. (2017, December 28). *Flu Vaccine and People with Egg Allergies*. <https://www.cdc.gov/flu/prevent/egg-allergies.htm>
121. Centers for Disease Control and Prevention. (2023, August 4). *Seasonal Influenza Vaccine Supply for the U.S. 2023-2024 Influenza Season*. <https://www.cdc.gov/flu/prevent/vaccine/supply.html>
122. Centers for Disease Control and Prevention. (2019). *Flu Vaccine Safety Information*. <https://www.cdc.gov/flu/prevent/general.htm>