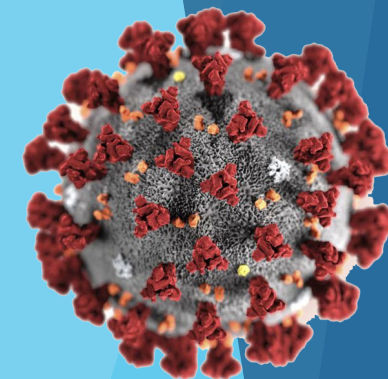




# ***Long COVID's Impact on Patients, Workers & Society***

*Webinar Nov. 1<sup>st</sup>, 2023*

<https://healthconference.org>



## **Webinar Conclusion**

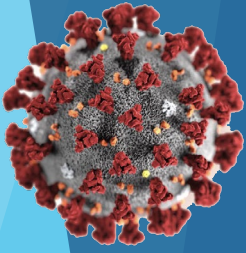
**Dr. Joycelyn Elders  
Past United States Surgeon General**



# Thank you to the Speakers and Presenters

I would like to thank all speakers for taking their time to speak at this webinar and for all who attended and listened to the presentations. We hope we can return to a live format sometime in the future, but for now, the webinar format allows us to both have an international reach and to stay safe from COVID-19 and Long COVID.





# Prevention of Long COVID is Critical

**We now know that acute COVID-19 is only part of the problem**

- ▶ Some are mainly concerned about the prevention of hospitalizations during the acute phase of the infection and state that children are rarely hospitalized.
- ▶ But the long-term effects of COVID-19 in children are real and concerning. After the acute infection, children can develop cognitive difficulties, Multi-system Inflammatory Syndrome in children (MIS-C) and immune hypofunction.

# Prevention of Long COVID is Critical

## Childhood neurological problems

**The New York Times**



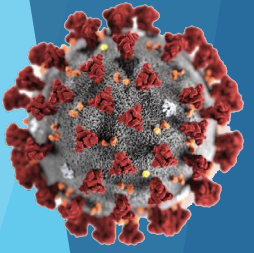
By Pam Belluck

### ***‘This Is Really Scary’: Kids Struggle With Long Covid***

Lingering physical, mental and neurological symptoms are affecting children as well as adults, including many who had mild reactions to the initial coronavirus infection.

<https://www.nytimes.com/2021/08/08/health/long-covid-kids.html>

- ▶ At Boston Children’s Hospital, where a program draws long Covid patients from across the country, “we’re seeing things like fatigue, headaches, brain fog, memory and concentration difficulties, sleep disturbances, ongoing change in smell and taste,”



# Prevention of Long COVID is Vital

## Childhood Immune dysfunction

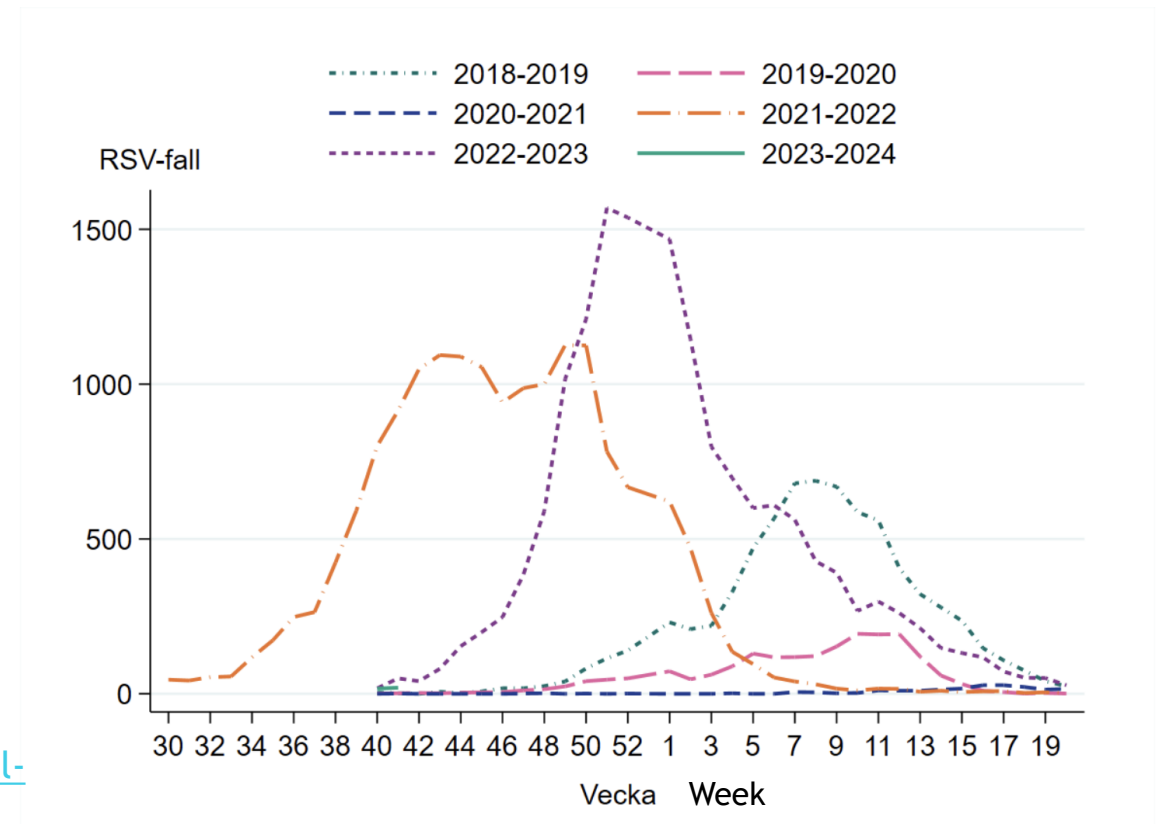
There is mounting evidence that COVID-19 can affect one's ability to fight off disease, at least for a period of time. In Sweden, a country with little public health interventions and a country which kept primary schools open, large surges in RSV infections were seen during the pandemic.

Public Health Agency of Sweden

<https://www.folkhalsomyndigheten.se/folkhalsorapportering-statistik/statistik-a-o/sjukdomsstatistik/rsv-veckorapporter/aktuell-veckorapport-om-rsv/>

## Confirmed cases

Figure 1a. Number of reported cases of RSV from season 2018–2019 to current week season 2023–2024. The 2021–2022 season started in week 21, since the seasonal monitoring normally starts in week 40, there is no data for the summer weeks for other seasons.





# Prevention of Long COVID is Critical

## Childhood MIS-C

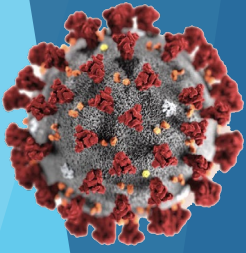
MIS-C is a serious though rare condition in children in which the body's own immune system overreacts to a SARS-CoV-2 infection, resulting in inflammation of multiple organ systems throughout the body. It can affect the heart, blood vessels, gastrointestinal organs, lungs and other respiratory organs, kidneys, skin, eyes, and nervous system, and it can lead to shock, impaired organ function, and even organ failure. In most cases, though, children experience inflammation in only a few of these organs.

<https://www.yalemedicine.org/conditions/multisystem-inflammatory-syndrome-in-children-mis-c>

The **COVID-19 vaccines** have been found to prevent severe COVID-19 disease and **decrease the risk of developing MIS-C by 91%** among children ages 12-18 years.

<https://newsroom.heart.org/news/heart-issues-after-covid-19-uncommon-in-children-young-adults-more-research-needed>

# Vaccine Hesitancy is Reaching Disturbing Levels



## Los Angeles Times

BY RONG-GONG LIN II | STAFF WRITER

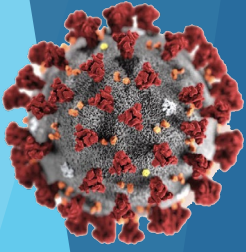
► As reported on Oct. 27, 2023 in the LA Times:

“Only 5% of Californians, or 1.8 million people, have received the updated COVID-19 vaccine since it became [available](#) last month. Among seniors, the rate is 14%.”

“That’s not good enough. We should really be seeing much higher rates, especially amongst the old,” Dr. Tomás Aragón, director of the California Department of Public Health, said at a briefing Thursday. “Winter is coming.”

<https://www.latimes.com/california/story/2023-10-27/new-covid-shots-are-here-majority-of-l-a-county-residents-plan-to-get-one-officials-say>

# Vaccine Hesitancy is Reaching Critical Levels



## The Washington Times

*America's Newspaper*

By Mike Stobbe - Associated Press - Thursday, October 26, 2023

- ▶ Rates in the rest of the nation are lower.

"NEW YORK — A month after federal officials recommended new versions of COVID-19 vaccines, **7% of U.S. adults and 2% of children have gotten a shot.** One expert called the rates "abysmal.""

<https://www.washingtontimes.com/news/2023/oct/26/2-of-kids-and-7-of-adults-have-gotten-new-covid-19/>



# Long COVID is a Risk to All Including Children and Our Furry Friends

**The best way to avoid Long COVID is to not catch COVID-19.**

And the best way to avoid catching COVID-19 is to

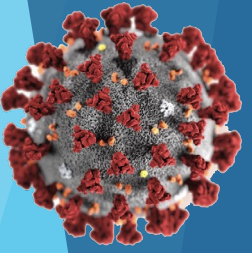
- ▶ Become vaccinated and
- ▶ To wear high quality masks in high-risk settings.
  - Masks should be high quality respirators and
  - without an exhalation valve.
- ▶ Do not succumb to peer pressure, do what needs to be done to protect yourself and others.



# Long COVID is a Risk to All Including Children and Our Furry Friends

- ▶ Viral reservoirs in an infected person's organs are felt to be one of the causes of Long COVID.
- ▶ COVID-19 vaccines can also help to lessen Long COVID symptoms in many patients.





# COVID-19 Vaccinations

- ▶ As of Sept. 2022, only half of those age 5 years and above had received a booster dose. Of those above age 55 only one third received a second booster dose.
- ▶ The current booster (formulated from the XBB 1.5 variant) is effective for the circulating variant (BA.2.86). The new booster is recommended for all ages, 6 months of age and up.
- ▶ But far too few are becoming vaccinated and boosted to COVID-19

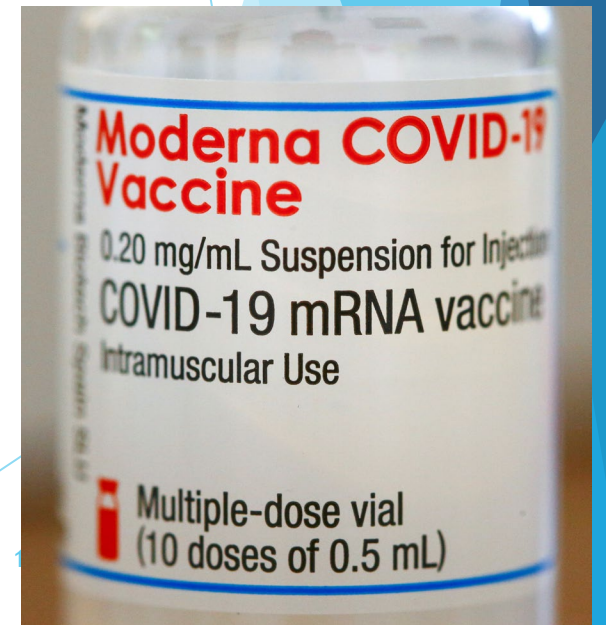
# Moderna Cutting Production of Vaccines



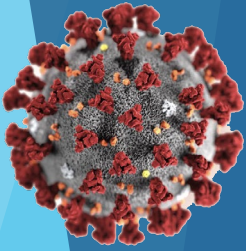
## Moderna to cut mRNA drug substance production at Lonza facility

(Reuters) - Moderna said on Tuesday it will cut production of mRNA drug substance for its COVID-19 vaccine at Lonza's facility in Switzerland this quarter as part of a plan to align manufacturing of the shots with lower post-pandemic demand.

<https://www.reuters.com/business/healthcare-pharmaceuticals/moderna-ramp-down-mrna-drug-substance-production-switzerland-unit-2023-09-19/>



# This is Affecting Even Our Furry friends.



## THE WALL STREET JOURNAL.

HEALTH

### Veterinarians Confront a Human Problem: Anti-Vaxxers

By Stephanie Armour [Follow](#)

Oct. 14, 2023 8:32 am ET

Researchers 'shocked' by growing number of pet owners resisting routine shots

"Researchers who have studied vaccine hesitancy since the onset of the Covid-19 pandemic say a growing body of evidence shows a surprisingly high level of mistrust among pet owners over vaccines for cats and dogs. **Almost 40% of dog owners believe that canine vaccines are unsafe**, more than 20% believe these vaccines are ineffective and 30% consider them to be medically unnecessary, according to a new study published in the journal Vaccine." 70% of dogs need to be vaccinated to prevent rabies outbreaks.

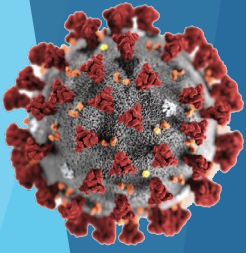
"Researchers say the resistance also reflects the skepticism about medicine and science that has taken root since the start of the Covid-19 pandemic. "



13



# Vaccine Hesitancy - Spreading



## Worldwide

Nearly 40 million children are dangerously susceptible to growing measles threat

Measles vaccination coverage has steadily declined since the beginning of the COVID-19 pandemic. In 2021, a record high of (world-wide) nearly 40 million children missed a measles vaccine dose: 25 million children missed their first dose, and an additional 14.7 million children missed their second dose, a joint publication by the World Health Organization (WHO) and the United States Centers for Disease Control and Prevention (CDC) reports. This decline is a significant setback in global progress towards achieving and maintaining measles elimination and leaves millions of children susceptible to infection.



# Vaccine Hesitancy is Becoming a threat to other disease.

- ▶ In India, over a 6-month period there were 36,154 cases of measles. There is also high incidence in many middle-east countries.  
<https://www.cdc.gov/globalhealth/measles/data/global-measles-outbreaks.html>
- ▶ According to the CDC, Measles is in the United States Measles and is the most infectious disease known to mankind, And if we let our guard down measles could quickly reach epidemic proportions.



<https://www.cdc.gov/measles/cases-outbreaks.html>

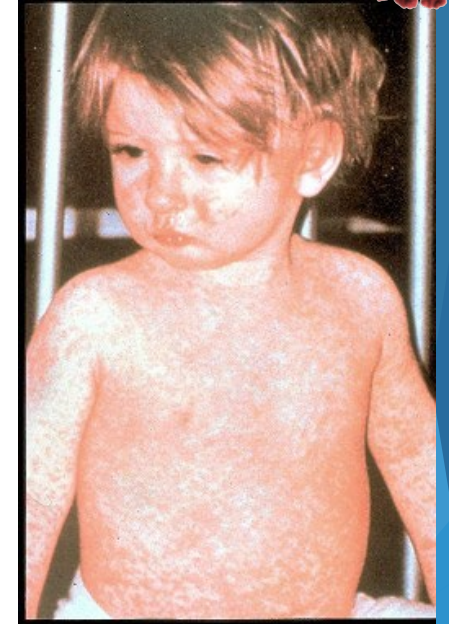
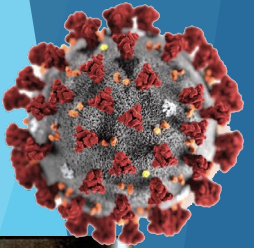
## Measles Cases and Outbreaks

[Español \(Spanish\)](#) [Print](#)

CDC updates this page monthly.

### Measles cases in 2023

As of September 29, 2023, a total of 29 measles cases were reported by 16 jurisdictions.



From [vaccineinformation.org](http://vaccineinformation.org)

IF WE DO NOT  
CHANGE OUR  
DIRECTION,

we are likely  
to end up where  
we are headed.

**Ancient Chinese Proverb**

