COVID-19: From Pandemic to Endemic

COVID-19 Webinar Series

The mission of ALLERGY & ASTHMA NETWORK is to end the needless death and suffering due to asthma, allergies and related conditions through outreach, education, advocacy and research.
MEET OUR Speakers

Dr. Purvi Parikh
- Clinical Assistant Professor of Medicine NYU Langone School of Medicine & Director, Allergy and Asthma Association, Murray Hill
- National Spokesperson, Allergy & Asthma Network

Tonya Winders
- President & CEO, Allergy & Asthma Network
- President, Global Allergy & Airways Patient Platform

Today’s Program

01 CURRENT STATE OF COVID-19

02 VACCINE UPDATE

03 FROM PANDEMIC TO ENDEMIC
POLL QUESTION

We’d like to know who is with us today!

What category best describes you? (we have a limited number of answers or would offer more!)

CURRENT STATE OF COVID-19

Tonya Winders
JOHNS HOPKINS GLOBAL MAP
March 15, 2022 12:20 PM

US DATA REPORT - CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

TOTAL CASES 79,346,678
+7,362 New Cases

7 DAY CASE RATE PER 100,000 71.9

TOTAL DEATHS 965,336
+118 New Deaths
IN THE NEWS

New study links accelerated aging of the brain and other changes to even a mild case of COVID-19
• Reduction in gray matter of brain – many changes in area of brain related to sense of smell

US mask mandates are lifting quickly
• CDC has suggested that most Americans do not need to wear a mask
• Some exceptions:
  • Approx. 1/3 of school districts are continuing mask mandates
  • Hawaii is the only US State to not lift its indoor mask mandate – expected to be lifted on March 26th

IN THE NEWS

Early symptom of COVID-19 in mild breakthrough infections has been identified: Sore Throat

New variant appears to be present in US - “Deltacron” – Delta & Omicron hybrid
Hybrids are rare
No evidence that mutations spread as easily as Omicron did
COVID-19 Cases by Date Reported

New Cases by Day

CDC Data

POLL QUESTION

Where do you go for most of your information about COVID-19?
# VACCINE & COVID-19 UPDATE

Dr. Purvi Parikh

## US CDC Data

<table>
<thead>
<tr>
<th>At Least One Dose</th>
<th>Fully Vaccinated</th>
<th>Booster Doses</th>
<th>Booster Eligible***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fully Vaccinated* People</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>216,690,804</td>
<td>216,661,427</td>
<td>65.3%</td>
</tr>
<tr>
<td>Population 5 Years of Age</td>
<td>208,951,374</td>
<td>73.7%</td>
<td></td>
</tr>
<tr>
<td>Population 18 Years of Age</td>
<td>194,264,498</td>
<td>75.2%</td>
<td></td>
</tr>
<tr>
<td>Population 65 Years of Age</td>
<td>48,700,667</td>
<td>88.9%</td>
<td></td>
</tr>
</tbody>
</table>

216.7M  
People fully vaccinated

96.0M  
People received a booster dose**

---

*Fully Vaccinated* indicates those who have received at least one dose of a COVID-19 vaccine.

**People received a booster dose** indicates those who have received a booster dose.

***Boosters Eligible*** indicates the population eligible for a booster dose based on age.
Vaccine Q & A

01. CAN YOU STILL GET COVID-19 IF YOU ARE VACCINATED?

YES - since vaccines are not 100% effective at preventing infection, some people who are fully vaccinated will still get COVID-19. An infection of a fully vaccinated person is referred to as a "vaccine breakthrough infection."

02. SHOULD I GET THE COVID-19 VACCINE IF I HAD COVID-19?

SHORT ANSWER? YES.
You should be vaccinated regardless of whether you already had COVID-19.

03. HOW LONG DO COVID-19 VACCINES LAST?

It is normal for virus-fighting antibodies to wane over time. Monitoring antibody levels in the blood is one way to measure vaccine efficacy & research has found that protection remains high for 6 months after the second shot of a Pfizer or Moderna vaccine.

04. HOW LONG IS THE STABILITY OF THE PFIZER-BIONTECH COVID-19 VACCINE?

Pfizer-BioNTech has submitted data to FDA supporting the stability of their COVID-19 vaccine when stored for up to one month (31 days) at 2°-8°C (standard refrigerator temperature).
Vaccine Q & A

05. IF YOU HAD AN ALLERGIC REACTION TO YOUR FIRST COVID VACCINE, WILL YOU HAVE A REACTION TO A LATER VACCINE?

NOT NECESSARILY. The risk of a second dose reaction is extremely low. Recommendations still say to not get the 2nd shot, but a new study shows no allergic reactions to a 2nd shot.

06. WILL THE VACCINE HELP ME AVOID LONG COVID?

YES. People who have been vaccinated against COVID-19 are less likely to suffer from Long COVID if they catch the virus.

07. ARE THERE LASTING MENTAL HEALTH ISSUES WITH COVID?

YES. COVID patients are more than 60% likely to suffer mental & emotional issues in the year after infection – anxiety, depression, sleep disorders, drug/alcohol use & concentration problems.

08. IS THERE ANOTHER VARIANT OUT THERE AFTER OMICRON?

There is a variant called the BA.2 strain of the Omicron variants that spreads about 30% more easily. It accounts for about 3.9% of new COVID infections.

Pfizer CEO: A fourth dose of vaccine is “necessary”

We will follow the science as this unfolds!

Possible that COVID-19 boosters will be annual like the flu shot

• “Variants are coming – we know the duration of the protection doesn’t last very long”
• “We’re working to make a vaccine that will protect against all variants, but also offer protection for a year.

Will a second booster be necessary?

• Pfizer says a fourth shot would be required
• “Protection from third dose has been ‘quite good’ but it doesn’t last very long.”
Cardiovascular Issues Related to COVID-19

- Serious cardiac and cardiovascular issues 4% higher in the 12 months after people were diagnosed with COVID-19
- Higher risk of stroke
- Heart attack
- Arrhythmias – atrial fibrillation
- Inflammation of heart muscles

"Even though 4% is a single-digit number and it may seem small to some people, but you have to multiply that by the huge number of people in the U.S. and many, many more around the world who experienced COVID-19 infections," says the study’s lead author Dr. Ziyad Al-Aly, director of clinical epidemiology at the Veterans Affairs St. Louis Health Care System. "This is really going to create a generation of people with heart problems."

PANDEMIC TO ENDEMIC

Dr. Purvi Parikh
A Short History of Pandemics

1918 Flu Pandemic
Caused by an A/H1N1 Influenza virus

1957 Flu Pandemic
Caused by an A/H2N2 Influenza virus

1968 Flu Pandemic
Caused by an A/H3N2 Influenza virus

2009 “Swine Flu” Pandemic
Caused by an A/H1N1 Influenza virus.

2019 COVID-19 Pandemic
Caused by SARS-CoV-2 virus


Definitions

Pandemic

1: occurring over a wide geographic area (such as multiple countries or continents) and typically affecting a significant proportion of the population.

2: characterized by very widespread growth or extent: A problem of pandemic proportions

Endemic

1a: belonging or native to a particular people or country

b: characteristic of or prevalent in a particular field, area, or environment problems

2: restricted or peculiar to a locality or region: endemic diseases
The expectation that COVID-19 will become endemic essentially means that the pandemic will not end with the virus disappearing; instead, the optimistic view is that enough people will gain immune protection from vaccination and from natural infection such that there will be less transmission and much less COVID-19-related hospitalization and death, even as the virus continues to circulate.

Virus Transmissibility

Susceptible People
Viruses spread where there are enough susceptible individuals & enough contact among them to sustain spread

Hard to identify when COVID-19 will become endemic
Dependent on several factors

Strength & duration of immune protection
Immunity from vaccine or natural infection, patterns of contact with one another that allows spread & transmissibility of virus

Other pandemics
Patterns will likely differ from other pandemics – different responses in different parts of the world
It’s been hard to get to “Population Immunity” with COVID-19

Population Immunity
Occurs when enough of a population is immune to a virus that it becomes hard for the virus to spread

Vaccines offer strong protection
Strong protection against severe illness

As the virus spreads, it mutates
Gives rise to new variants – virus can continue to spread

The Omicron variant may have brought us closer to population Immunity – it had a high infectivity and was very widespread
Most people who had been vaccinated experienced mild symptoms and recovered well

Pandemic to Endemic

“Many experts now see COVID-19 becoming endemic in a way that’s similar to the seasonal flu.”

“It’s endemic when it doesn’t disrupt everyday life.”

Dr. Bernard Camins
Medical Director
Mount Sinai Health System
WHAT DOES THIS MEAN?

01 Pandemic = Waves of disease
Endemic = Seasonal pattern – like the flu or colds

02 Proportion of the population will have more immunity
From vaccination or infection

03 How widespread will future waves be?
We don’t know yet. We’re still walking through this.

04 Will we need more booster vaccinations?
Depends on how long immunity lasts or if a new variant comes along
We will likely be getting annual vaccination against COVID-19, just like we do for the flu.

More About Boosters

2 Key Areas of Decision-making:

1 Biology

Biology:
To what extent will COVID-19 evolve to evade our immune systems?
How long does immune protection last?

2 Policy

Policy:
What burden of disease are we willing to tolerate in a population?
What do we want to do about preventable diseases?
What About Masks?

Will they have a place in our approach to preventing transmission?

- **Masks in classrooms?**
  This will probably end on a regular basis – starting to see that now in different regions.

- **Masks in the workplace?**
  Many companies are discontinuing this requirement now.

- **Individuals deciding to mask?**
  Many will still choose to wear a mask – travel, crowds.

Endemic does not mean harmless

It can still kill, as do endemic diseases like tuberculosis and malaria.
We Should be Optimistic

**Vaccines**
We’ve learned a lot about vaccines and their effectiveness in preventing serious illness in COVID-19

**Drugs**
New drugs are available to treat COVID-19

**Public Health**
Public health tools, like hand washing, masks and social distancing are tools we know work well to prevent the spread of disease

“I am encouraging people to just hang onto these mitigation measures like masking and distancing for even just a few more weeks.”

-Andrea Ciaranello, Harvard Medical School
A Possible Future?

Warm Weather

Cases of COVID-19 fall dramatically as the warm weather arrives, as it did during the last two Springs.

Next Winter

Some sort of surge again as Winter arrives.

Watch

Watch the US. South in late summer and early fall – proven to be a predictor of what will happen in Northern states as weather cools.

William Hanage, an epidemiologist at the Harvard T.H. Chan School of Public Health and associate professor of epidemiology

Past pandemics have led to massive changes in the way we live that we’ve come to accept as normal. Screens on our doors and windows helped keep out mosquitoes that carried yellow fever and malaria. Sewer systems and access to clean water helped eliminate typhoid and cholera epidemics. Perhaps the lessons learned from COVID-19 in terms of disease prevention can yield similar long-term improvements in individual and global health.

POLL QUESTION

What topic would you like to see us present on during a future COVID webinar?

QUESTIONS

Record your questions in the question box
We’ll get to as many as we can!
Next Webinar

Join us for our upcoming webinar

SLIT: Single vs. Multiple Allergen Approach

Thursday, March 24, 2022
4:00 PM ET

Breathe Better Together

allergyasthmanetwork.org

Please remain online for 2 – 3 minutes to complete an evaluation survey! Thank you!