Upcoming Webinars
Allergy & Asthma Network

Access & Equity in Asthma Care
May 26, - 4:00 PM ET
Dr. Bridgette Jones

Moving Asthma & Allergy Science Forward
June 9 – 3:00 PM ET
Dr. DeDe Gardner

Asthma & COPD: Two Diseases or a Spectrum of One?
May 31 – 3:00 PM ET
Dr. Vickram Tejwani

Asthma & COVID-19: Care & Education at Appropriate Literacy Levels
June 16 - 4:00 PM ET
Dr. Prvi Parikh
Dr. Michael Bowman

COVID-19: An Epidemiological View for our Communities & Schools
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 & TREATMENT TRENDS

03 AN EPIDEMIOLOGICAL VIEW OF COVID-19 IN COMMUNITIES & SCHOOLS

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

May 19, 2022 7:20 AM
Current Cases of COVID-19 in the US

Centers for Disease Control and Prevention

IN THE NEWS

US Death Toll for COVID tops 1 Million

An average of more than 90,000 new cases are being identified each day in the US – 60% increase from 2 weeks ago

Most cases in Northeast & Midwest

As virus evolves, people can have 3\textsuperscript{rd} or 4\textsuperscript{th} infections – may have symptoms persist for months or years
IN THE NEWS

Business travel resumes – but not at its former pace

Significant upswings in small and large business meetings – some businesses continue to restrict travel

Some school mask mandates are returning with increase of cases

IN THE NEWS

On Tuesday, the FDA authorized a booster dose of the Pfizer-BioNTech Covid-19 vaccine for children ages 5 to 11. Children in the age group can get a booster shot at least five months after they’ve received the primary two-dose series, the FDA said in a statement.

Americans can once again order free COVID-19 tests from the federal government by visiting COVIDtests.gov. In this round, the U.S. Postal Service will deliver eight free rapid antigen tests to any household in the U.S. that wants them, according to the website.
What do you think the CDC reporting shows about COVID-19 cases in the US?
VACCINE & TREATMENT TRENDS
Dr. Purvi Parikh

Total Vaccine Doses
Distributed
738,312,155
Administered
582,757,136

220.7M
People fully vaccinated
102.4M 12.1M
People with a first booster dose** People with a second booster dose**
Vaccine Coverage in the US
Center for Disease Control and Prevention

Vaccinations by Vaccine Type - CDC
Declines in Routine Childhood Vaccination During the Pandemic

As COVID-19 spread in March and April 2020, stay-at-home orders, social distancing requirements, remote schooling, and economic downturn contributed to driving down healthcare professional visits and challenged the ability to maintain routine vaccination.

Office Visits for children 3 – 5 years old dropped 75% nationally
March 2020 – 58% reduction in all age groups

Visits recovered during 2020
But still a cumulative 27% reduction by end of 2020

Low vaccine rates put children – and communities – at risk for disease
Must improve vaccine access, invest in education and more

NIH COVID-19 Treatment Update
April 2022

Therapeutic Management of Nonhospitalized Adults With COVID-19

The Panel previously recommended the anti-SARS-CoV-2 monoclonal antibody (mAb) sotrovimab as a treatment option for certain nonhospitalized patients with COVID-19. Although sotrovimab is active against the Omicron BA.1 and BA.1.1 subvariants, it has substantially decreased in vitro activity against the Omicron BA.2 subvariant that has recently become the dominant subvariant in the United States.

Because the Omicron BA.2 subvariant is now the dominant circulating subvariant in all regions of the United States, the distribution of sotrovimab has been paused, and the Panel no longer recommends using sotrovimab to treat COVID-19. The recommendations and rationale for using sotrovimab have been removed from this section.

AN EPIDEMIOLOGICAL VIEW OF COVID-19 IN COMMUNITIES & SCHOOLS
Dr. Purvi Parikh
First, We Need a Little History

Where did this all start??

Began in China
At the end of 2019, COVID-19 began as a cluster of pneumonia cases in Wuhan, a city in the Hubei Province of China.

Spread
It rapidly spread, resulting in an epidemic throughout China, followed by a global pandemic.

World Health Organization
In February 2020, the World Health Organization designated the disease COVID-19, which stands for coronavirus disease 2019. The virus that causes COVID-19 is designated severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2); previously, it was referred to as 2019-nCoV.

Virology - Coronaviruses are enveloped positive-stranded RNA viruses
Like other viruses, SARS-CoV-2 evolves over time.
Most mutations in the SARS-CoV-2 genome have no impact on viral function.

Omicron Notes
Observational data suggest that the risk of severe disease with Omicron infection is lower than with other variants.
Reduced risk for severe disease may reflect partial protection conferred by prior infection or vaccination.
Even if the individual risk for severe disease with Omicron is lower than with prior variants, the high number of associated cases can still result in high numbers of hospitalizations and excess burden on the health care system.

## What is Epidemiology?

Epidemiology is the method used to find the causes of health outcomes and diseases in populations. In epidemiology, the patient is the community and individuals are viewed collectively. By definition, epidemiology is the study (scientific, systematic, and data-driven) of the distribution (frequency, pattern) and determinants (causes, risk factors) of health-related states and events (not just diseases) in specified populations (neighborhood, school, city, state, country, global). It is also the application of this study to the control of health problems. - CDC

## Geographic Distribution and Case Counts

### Global Cases

Since the first reports of cases from Wuhan, a city in the Hubei Province of China, at the end of 2019, cases have been reported in all continents.

#### Case Count

Globally, over 400 million confirmed cases of COVID-19 have been reported.

#### Counts Underreported

The reported case counts underestimate the overall burden of COVID-19, as only a fraction of acute infections are diagnosed and reported.

#### Seroprevalence

Seroprevalence surveys suggest the rate of prior exposure to SARS-CoV-2, as reflected by seropositivity, exceeds the incidence of reported cases by approximately 10-fold or more.
Direct person-to-person respiratory transmission is the primary means of transmission of severe acute respiratory syndrome coronavirus 2. Occur mainly through close-range contact - within approximately six feet or two meters - via respiratory particles. Virus is released in the respiratory secretions when a person with infection coughs, sneezes, or talks can infect another person if it is inhaled or makes direct contact with the mucous membranes. If a person’s hands are contaminated by these secretions or by touching contaminated surfaces and then they touch their eyes, nose, or mouth - although contaminated surfaces are not thought to be a major route of transmission. Also thought to be transmitted longer distances through the airborne route.

Viral Shedding & Period of Infectiousness

Potential to transmit COVID-19

Begins prior to the development of symptoms and is highest early in the course of illness. Transmission after 7 to 10 days of illness is unlikely.

Infectiousness

- **Period of greatest infectiousness**: More likely to be contagious in the earlier stages of illness when viral RNA levels from upper respiratory specimens are the highest.

- **Asymptomatic or presymptomatic transmission**: Transmission of SARS-CoV-2 from individuals with infection but no symptoms.

- **Prolonged viral RNA detection does not indicate prolonged infectiousness**: Duration of viral RNA shedding is variable and may increase with age and the severity of illness.

- **Environmental contamination**: Susceptible individuals touch contaminated surfaces and then transfer infectious virus to mucous membranes in the mouth, eyes, or nose.

- **Risk of animal contact**: Ongoing risk of transmission through animal contact is uncertain.

- **Risk of transmission depends on exposure type**: Risk varies by the type & duration of exposure, use of preventive measures, and likely individual factors.

Risk of Reinfection

- **Early Variants**: Prior to emergence of the Omicron variant, the short-term risk of reinfection (e.g., within the first several months after initial infection) was low.

- **Prior Infection**: Prior infection reduced the risk of infection in the subsequent six to nine months by at least 80 to 85 percent.

- **Severity of Infection**: Some studies suggest that reinfections are milder than initial infections.

- **Reinfection**: SARS-CoV-2 viral test after recovery does not necessarily indicate reinfection.

Ongoing Prevention Strategies

We're not done with these yet!

- **Infection control - health care setting**
  Where community transmission is widespread, preventive strategies for all health care settings can reduce potential exposures.

- **Social/physical distancing**
  High transmission = individuals are advised to practice social or physical distancing in both indoor and outdoor spaces.

- **Personal preventative measures**
  High transmission = practice social distancing by avoiding crowds & maintaining a distance of six feet from others when in public.

- **Wearing masks in the community**
  Local guidelines on mask-wearing depend on the level of community transmission and vaccination rates.

- **Screening in high-risk settings**
  Long-term care facilities, college campuses

- **Other public health measures**
  School guidance, travel restrictions, case identification, contact tracing


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**Post-exposure Management**

- Testing and quarantine are strategies to quickly identify secondary infections in an exposed individual and reduce the risk of that individual exposing others before an infection is recognized.

- Use of monoclonal antibody combinations to prevent SARS-CoV-2 infection in select individuals over 12 years of age needs to be looked at with each variant.
COVID-19 pandemic has taken a tremendous toll on America’s students, families, educators, and schools. Schools have reopened due to:

- Access to vaccinations for school staff & eligible students
- Proven virus prevention strategies
- Unprecedented resources from the American Rescue Plan and other federal pandemic relief funds

The goal of the Roadmap (on the next slide) is to make sure every student has the support and opportunities they need to heal, learn, and grow in their classrooms and create an environment where they belong and can thrive.
Supporting Child & Student Social, Emotional, Behavioral & Mental Health Needs

- Prioritize Wellness for Each & Every Child, Student, Educator & Provider
- Enhance Mental Health Literacy and Reduce Stigma and Other Barriers to Access
- Implement Continuum of Evidence-Based Prevention Practices
- Establish an Integrated Framework of Educational, Social, Emotional, and Behavioral-Health Support for All
- Leverage Policy and Funding
- Enhance Workforce Capacity
- Use Data for Decision Making to Promote Equitable Implementation and Outcomes

Today’s Concepts

They all contribute to the big picture of COVID-19

- Virology
- Epidemiology
- Routes of Transmission
- Infectiousness
- School Concerns
- Return to School Culture
- Student Well-being
- Remember - We’re all in this together!
Will you continue to wear a mask on airlines, or public transportation?

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

Join us for our upcoming webinar

Access & Equity in Asthma Care

Thursday, May 26, 2022
4:00 PM ET

Breathe Better Together

allergyasthmanetwork.org

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