

NHMA COVID-19 VIRTUAL BRIEFING (SESSION 18):

Long COVID and the Future of Vaccines



Wednesday, October 26th

7-8:15 p.m. ET / 4-5:15 p.m. PT

FREE CME Credits for NHMA Members



**JENNIFER RITTENHOUSE
COPE, MD, MPH**

Captain of US Public Health Service
CDC COVID-19 Response



**LASZLO
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Chief Medical Officer
Migrant Clinicians Network



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Executive Director of COVID Task Force
Piedmont Healthcare Corporation

Opening Remarks:



YVETTE PEÑA

VP of Audience Strategy
**AARP Office of Diversity, Equity, &
Inclusion**

Moderated by:



ELENA V. RIOS, MD, MSPH, MACP

President & CEO
**National Hispanic Medical
Association**

REGISTER:BIT.LY/NHMACOVIDBRIEFING



In support of improving patient care, this activity has been planned and implemented by Amedco LLC and National Hispanic Medical Association. Amedco LLC is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

Physicians

Amedco LLC designates this live activity for a maximum of 1.25 AMA PRA Category 1 Credits™ for physicians. Physicians should claim only the credit commensurate with the extent of their participation in the activity.



Learner Notification

National Hispanic Medical Association

Understanding Long COVID and the Future of Vaccinations

October 26, 2022

Zoom

Acknowledgement of Financial Commercial Support

No financial commercial support was received for this educational activity.

Acknowledgement of In-Kind Commercial Support

No in-kind commercial support was received for this educational activity.

Satisfactory Completion

Learners must complete an evaluation form to receive a certificate of completion. You must attend the entire webinar as partial credit is not available. If you are seeking continuing education credit for a specialty not listed below, it is your responsibility to contact your licensing/certification board to determine course eligibility for your licensing/certification requirement.

Accreditation Statement



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Physicians

Amedco LLC designates this live activity for a maximum of 1.25 *AMA PRA Category 1 Credits*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Objectives - After Attending This Program You Should Be Able To

1. Increase awareness of the impact long COVID has on individual/population health and the U.S. economy
2. Increase awareness of how vaccines can ultimately prevent/decrease the chances of getting long COVID

Disclosure of Conflict of Interest

The following table of disclosure information is provided to learners and contains the relevant financial relationships that each individual in a position to control the content disclosed to Amedco. All of these relationships were treated as a conflict of interest, and have been resolved. (C7 SCS 6.1-6.2, 6.5)

Name	Commercial Interest:Relationship
Vincent Gearity	NA
Laszlo Madaras, MD	NA
Jayne Morgan, MD	Moderna, Novartis:Consultant
Elena Rios, MD, MSPH, FACP	no:Other
Jennifer Rittenhouse Cope, MD, MPH	NA

Claim your CE by going to:

<https://www.nhmamd.org/covid-19-virtual-briefing-series>

Welcome



Elena Rios, MD, MSPH, MACP

President & CEO

National Hispanic Medical Association

Housekeeping

- All participant microphones will be muted, but please feel free to type your question into the Q & A box for the panelists to address during our Q & A session at the end.
- Please fill out the short post-webinar survey that will be emailed out after the event and also shown as a QR code at the end – Raffle prizes are available upon completion.
- Recording will be housed on NHMAmd.org and sent out one week after the event, along with the instructions to claim your CME.

Opening Remarks



Yvette Peña

Vice President, Audience Strategy

Office of Diversity, Equity &

Inclusion

AARP



RESOURCES

COVID-19 Resource Center:
[AARP.org/Coronavirus/](https://www.aarp.org/Coronavirus/)
[AARP.org/ElCoronavirus](https://www.aarp.org/ElCoronavirus)

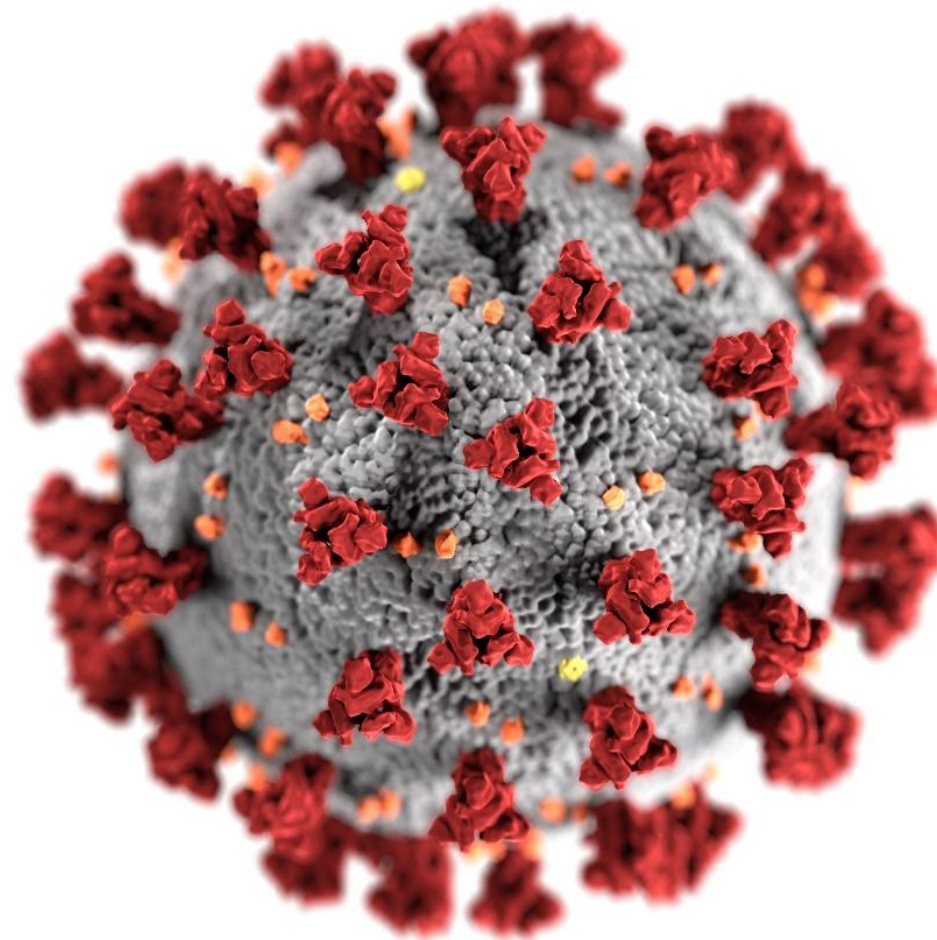
Medicare Resources:
[AARP.org/Medicare](https://www.aarp.org/Medicare)
[AARP.org/MiMedicare](https://www.aarp.org/MiMedicare)

Valuable Articles for Consideration:
Most Common Symptoms of Long COVID
What to Know about the Coronavirus Vaccines
What You Need to Know about the Coronavirus
How to Find Coronavirus Help in Your State



Understanding Post-COVID Conditions

Jennifer Cope, MD, MPH, FIDSA
CAPT, US Public Health Service
Post-COVID Conditions Team
Chronic Viral Diseases Branch



cdc.gov/coronavirus



Objectives

- Outline a framework for understanding post-COVID conditions or Long COVID
- Describe the most common symptoms of Long COVID and risk factors for developing long COVID
- Discuss strategies for diagnosis and management of Long COVID patients



Many terms are used to refer to these conditions

- **Long COVID**
 - Commonly used
- **Post-COVID Condition(s)**
 - CDC and WHO
- **Post-Acute Sequelae of SARS-CoV-2 (PASC)**
 - NIH terminology



General framework for understanding post-COVID conditions

General Consequences of Illness and Hospitalization

- Post ICU-syndrome
- Other complications of illness and treatment

Post-Acute Consequences of SARS-CoV-2 Infection (PASC)

- System-specific pathology (e.g., lung fibrosis, stroke)
- Clinically significant symptoms with unclear pathology (e.g., ME/CFS*-like, dysautonomia)

Conditions frequently overlap, patients may experience any combination

*Myalgic Encephalomyelitis/Chronic Fatigue Syndrome

Symptoms seen in post-COVID conditions

General symptoms

- Tiredness or fatigue that interferes with daily life
- Symptoms that get worse after physical or mental effort (also known as “post-exertional malaise”)
- Fever

Cardiovascular and Respiratory symptoms

- Dyspnea/shortness of breath
- Cough
- Chest pain
- Heart palpitations

Digestive symptoms

- Diarrhea
- Stomach pain

Neurological symptoms

- Difficulty thinking or concentrating (sometimes referred to as “brain fog”)
- Headache
- Sleep problems
- Dizziness when standing up (lightheadedness)
- Pins-and-needles feelings
- Change in smell or taste
- Depression or anxiety

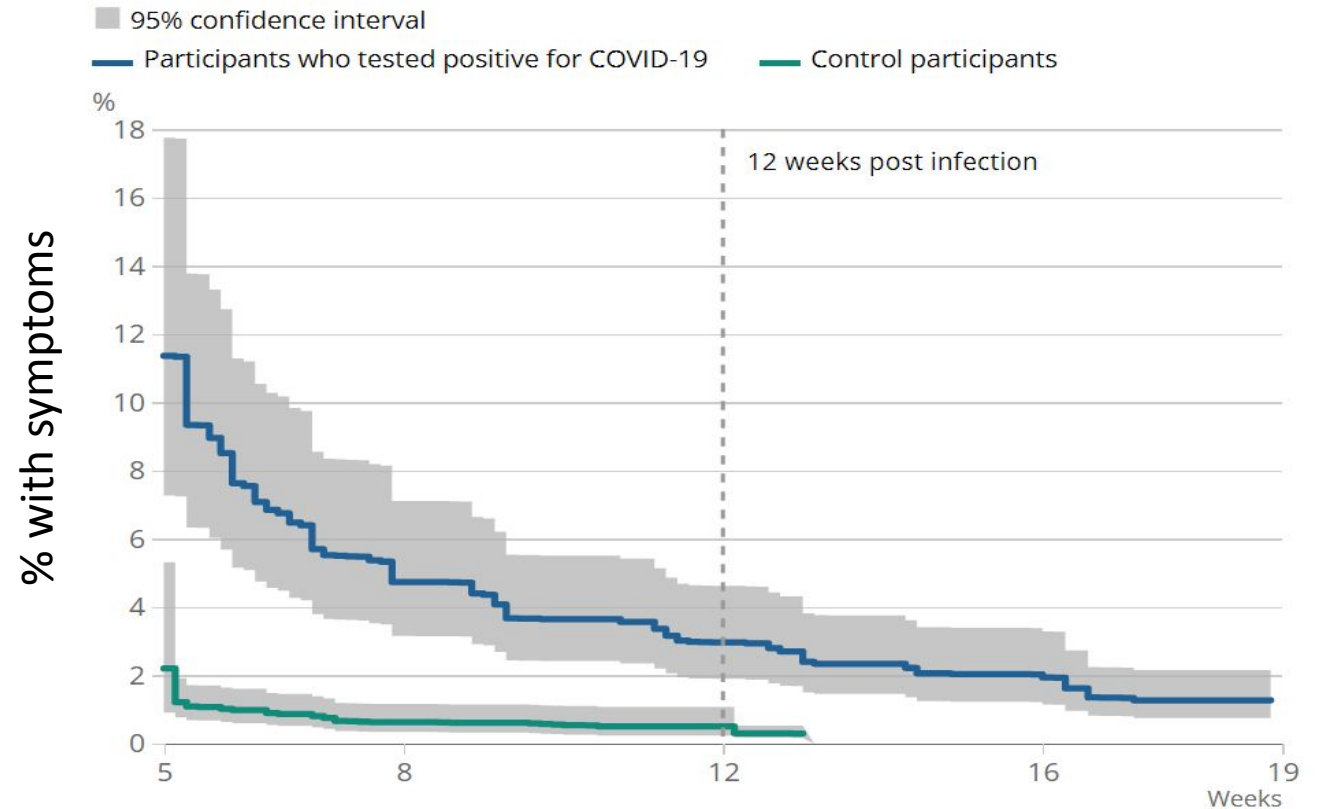
Other symptoms

- Joint or muscle pain
- Rash
- Changes in menstrual cycles

Duration of post-COVID conditions can vary

- Most patients recover in 4 weeks and the proportion reporting symptoms decreases between 4-12 weeks
- Improvement slows around 12 weeks after infection
- Women and men follow same pattern, but more women report symptoms

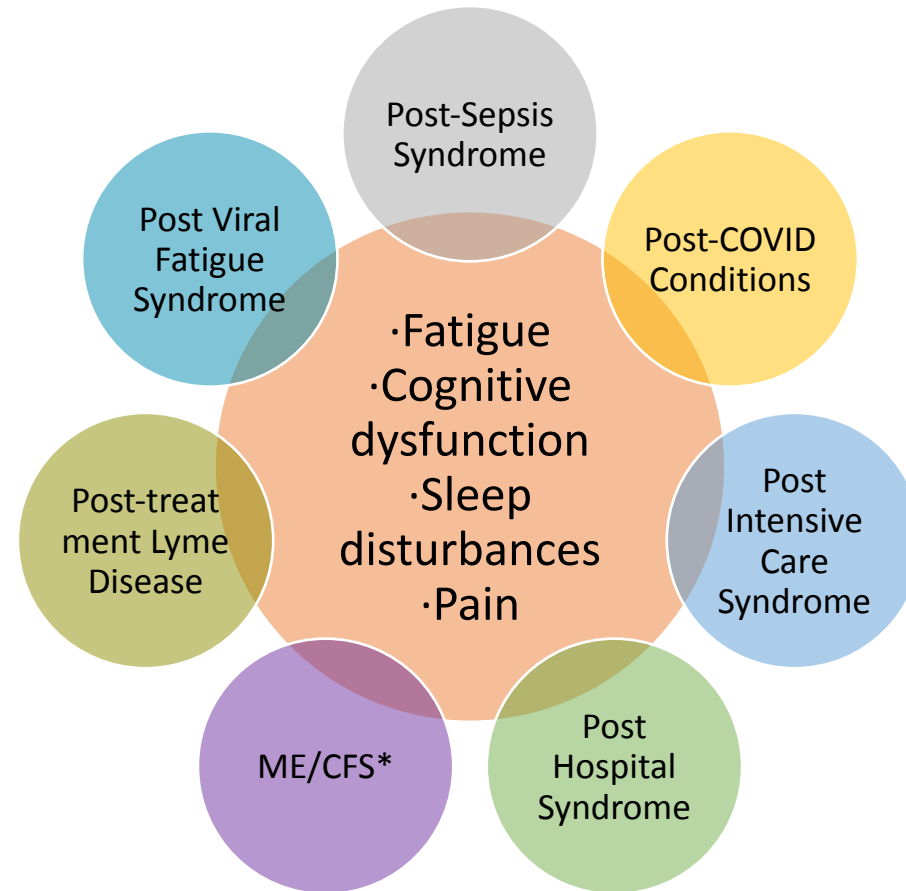
UK Coronavirus Infection Survey: Report of symptoms lasting 4 or more weeks- April 2020 – August 2021



Source: Office for National Statistics - Coronavirus Infection Survey
Technical article, figure 2. [Office for National Statistics \(ons.gov.uk\)](https://ons.gov.uk)



Syndromes with post acute sequelae



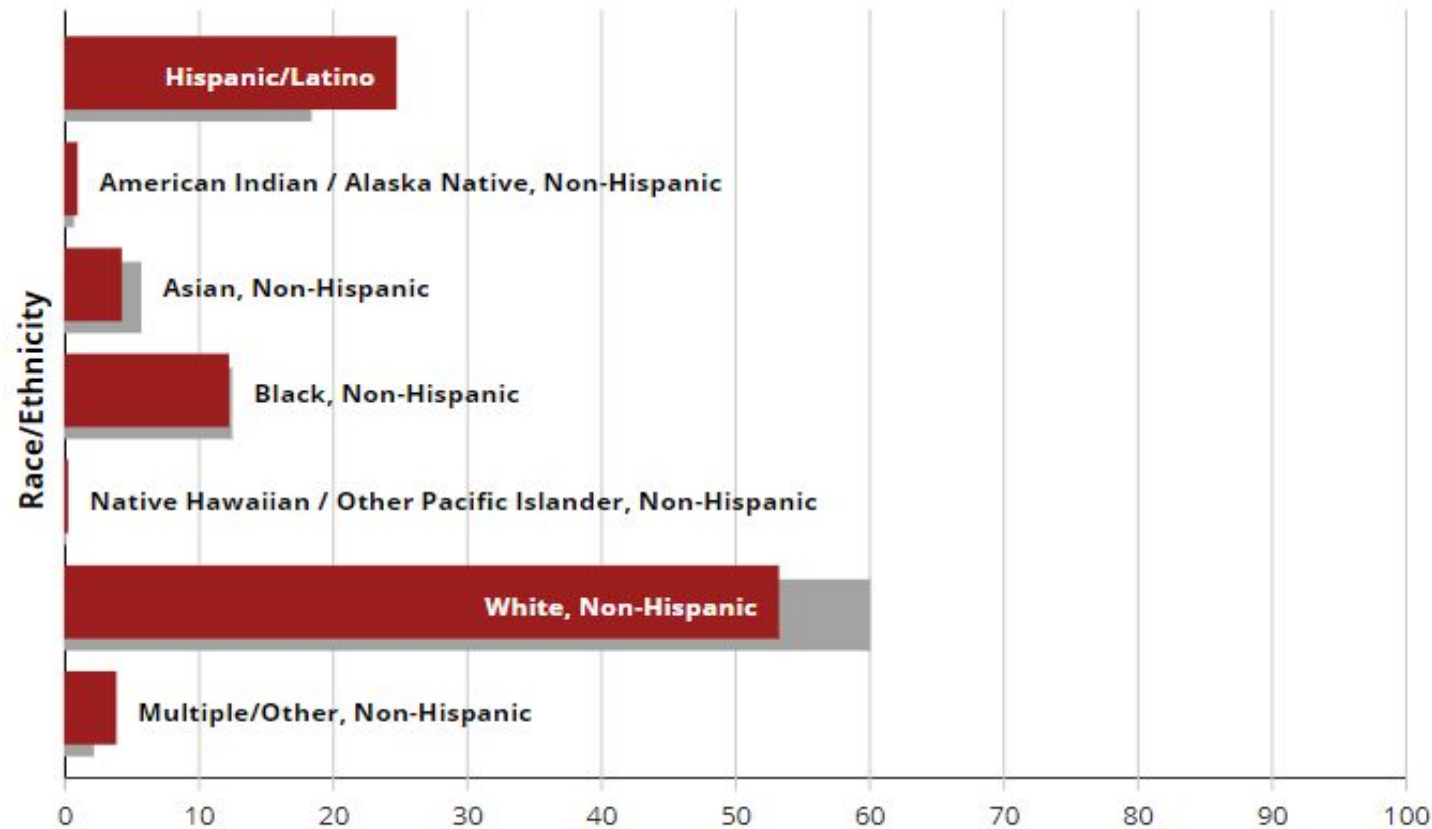
* ME/CFS: Myalgic Encephalomyelitis/Chronic Fatigue Syndrome

Clinical challenges with post-COVID conditions

- Complex clinical situation presents diagnostic challenges
 - No single diagnostic test
- Patient-reported symptoms are numerous
- Symptoms and debilitation often not explained by objective tests
 - Patients can be misunderstood and stigmatized
- No clinical trial data or management outcomes available



Percent of total COVID-19 cases by race/ethnicity compared to U.S. population, United States, as of Oct. 7, 2022



- Percentage of Cases, All Age Groups
- Percentage of the US Population, All Age Groups

Data from 89,355,877 cases. Race/Ethnicity was available for 58,639,920 (65%) cases.

[CDC COVID Data Tracker: Total Cases and Deaths by Race/Ethnicity, Age, and Sex](#)



Long COVID Data from Household Pulse Survey

- Data collected Sept 14– Sept 26, 2022
 - Short internet survey of the non-institutionalized U.S. adult population
 - Report of symptoms lasting ≥ 3 months and not present prior to having COVID-19
 - Report of symptoms currently present among persons who had COVID-19
- 15% of US adults who ever had COVID-19 currently report Long COVID
- Report of Long COVID differs by select demographic characteristics and disability status
 - Females (17.6%) compared to males (12.0%)
 - Non-Hispanic Asian adults less likely to have current Long COVID (8.7%), compared to non-Hispanic White (15.3%), non-Hispanic Black (14.4%), and **Hispanic** (14.7%)
 - Adults with a disability (30.2%) compared to adults without a disability (12.9%)



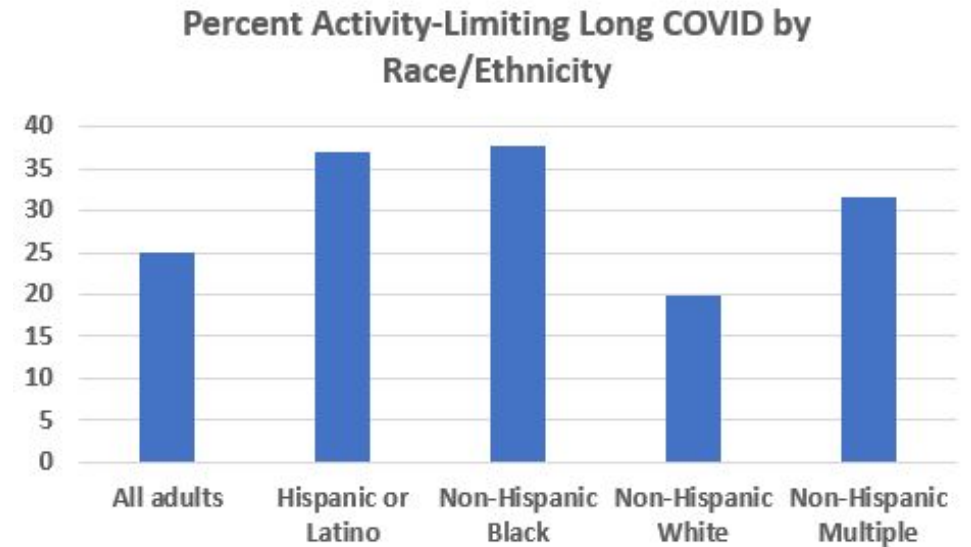
Prevalence of Activity Limitation from Long COVID: Data from the Household Pulse Survey (Phase 3.6)

- Inability to carry out daily activities due to Long COVID (new question)
 - **Any activity limitation** (either “yes, a little” or “yes, a lot” responses) or **significant activity limitation** (“yes, a lot” response) among adults with current Long COVID and among all adults
- 25.1% of adults with current Long COVID have **significant activity limitation**
 - 37.0% of Hispanic or Latino
 - 37.8% Non-Hispanic Black
 - 19.8% Non-Hispanic White
 - 31.6% Non-Hispanic multiple



Post-COVID Conditions among Hispanic Populations

- People who are Hispanic disproportionately represented among those affected by COVID-19
 - Higher exposure risk, difficulty accessing healthcare
 - [Early Release - Racial/Ethnic Disparities in Exposure, Disease Susceptibility, and Clinical Outcomes during COVID-19 Pandemic in National Cohort of Adults, United States - Volume 28, Number 11—November 2022 - Emerging Infectious Diseases journal – CDC](#)
- People who are Hispanic and Non-Hispanic Black with Long COVID have the highest percentage with significant activity limitations (Household Pulse Survey)

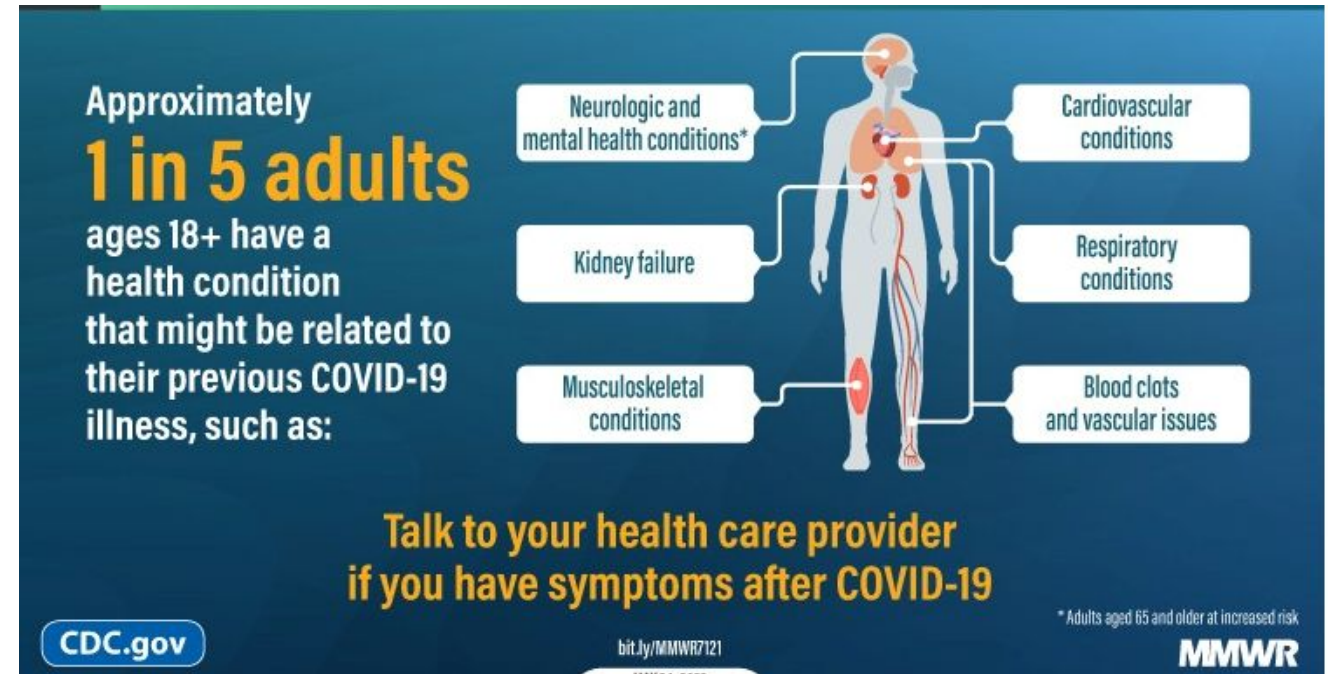


[Long COVID - Household Pulse Survey - COVID-19 \(cdc.gov\)](#)



Post-COVID Conditions Among Adult COVID-19 Survivors Aged 18–64 and ≥65 Years

- Analysis of occurrence of 26 clinical conditions in EHRs during Mar 2020 – Nov 2021 (~63 million unique adult records)
- Patients followed for 30 – 365 days after their initial acute COVID index encounter
- 38% of case-patients and 16% controls experienced at least one incident condition



Bull-Otterson et al. Post-COVID Conditions Among Adult COVID-19 Survivors Aged 18–64 and ≥65 Years – United States, March 2020–November 2021. *MMWR* May 27, 2022.

Long COVID and associated disability

- Long COVID under Americans with Disabilities Act (ADA)
 - Is a physical or mental impairment
 - Can substantially limit one or more major life activities
 - Not always a disability (must meet impairment criteria)
- Extent and duration of disability associated with persistent symptoms is being studied
 - Study of hospitalized COVID-19 patients in China found that **12% did not return to their original work by 12 months** (excluded 62% who were retired or not employed before COVID-19)¹

Given size of pandemic, even 1% disability at one year will have impact

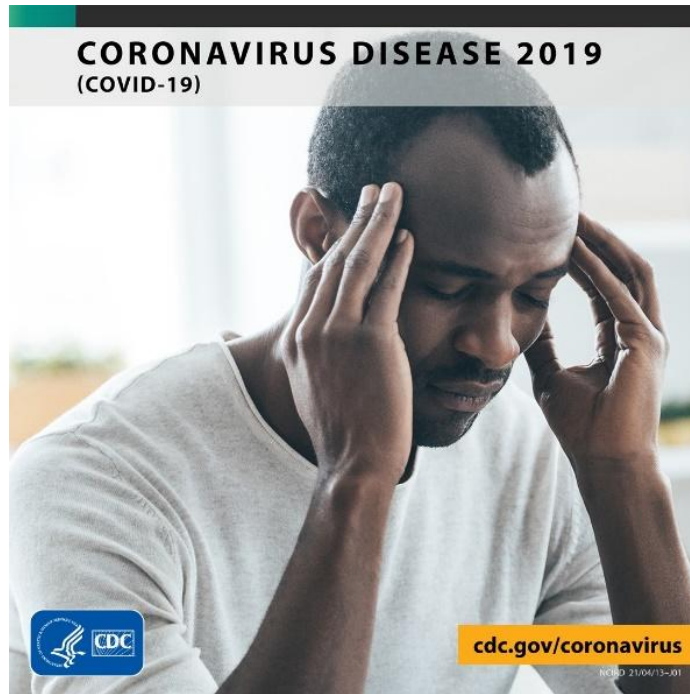


¹Huang et al. Lancet (2021)
398:747

RESOURCES



Information for healthcare providers on evaluating and caring for patients with post-COVID conditions



- Most post-COVID conditions can be diagnosed and managed by primary care
- Many post-COVID conditions may be diagnosed based on history and physical exam, routine tests may be normal
- Consider conservative diagnostic approach in the first 4 to 12 weeks
- Symptoms persisting beyond three months should prompt further evaluation
- **Listen to and validate patients' experiences and partner with patients to identify achievable health goals**

Post-COVID Conditions:
Information for Healthcare
Providers (cdc.gov)

U.S. ICD-10 CM code for post-COVID conditions
(as of October 1, 2021)

U09.9 Post COVID-19 condition



Emergency Preparedness and Response

Resources for Emergency Health Professionals > Clinician Outreach and Communication Activity (COCA) > COCA Calls/Webinars
> Calls/Webinars - 2022



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[What Clinicians Need to Know about Monkeypox in the United States and Other Countries](#)

[Clinical Recommendations for Adenovirus Testing and Reporting of Children with Acute Hepatitis of Unknown Etiology](#)

[Evaluating and Supporting Patients Presenting with Cognitive Symptoms Following COVID](#)

[Updated Guidance for Clinicians on](#)

Evaluating and Supporting Patients Presenting with Cognitive Symptoms Following COVID

CDC Evaluating and Supporting Patients with Cognitive Symptoms Following COVID
Center for Preparedness and Response



Evaluating and Supporting Patients Presenting with Cognitive Symptoms Following COVID



Clinician Outreach and Communication Activity (COCA) Call
Thursday, May 5, 2022

Watch on YouTube

CDC Clinician Outreach and Communication Activity (COCA) Call



To subscribe for COCA updates: <https://emergency.cdc.gov/coca/subscribe>

Long COVID and Fatiguing Illness Recovery Program Webinars

- 10 of 12 webinars completed
 - Sample topic: Neurocognitive manifestations of post-acute sequelae of SARS-CoV-2 (*Michelle Haddad, PhD, Emory University, February 2022*)
 - Next webinar: November 10, 2022
- Attendance: ~500 Zoom users per month
 - Clinicians
 - Subject matter experts
 - Patient and caregivers



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Long COVID & Fatiguing Illness Recovery Program ECHO

Thursday, February 10, 2022
12:00-1:00pm PST

Neurocognitive Manifestations of PASC

Michelle Haddad, PhD

Director of Post-COVID Neuropsychology Clinic
Director of Inpatient Neuropsychology
Departments of Rehabilitation Medicine & Neurology
Emory University School of Medicine

[Agenda](#)
[Presentation Slides](#)

To register: [Click Here](#)

For resources from past sessions, [click here](#)

Please contact LCecho@salud.unm.edu with any questions.

This program is open to all healthcare professionals and all Long COVID and ME/CFS patient-lived experience experts interested in learning more about the treatment of Long COVID and ME/CFS.

To register: [Webinar Registration - Zoom](#)



Clinical Guidance | [Free Access](#)

Multidisciplinary collaborative consensus guidance on the assessment and treatment of fatigue in patients with post-acute sequelae of SARS-CoV-2 infection (PASC)

Joseph E. Herrera DO, William N. Niehaus MD, Jonathan Whiteson MD, Albert J. White MD, MBA, Talya K. Fleming MD, Soo Yeon Kim MD, Huma Naqvi MD, Sarah M. Hays MD, Monica Verduzco Gutierrez MD, Jason Maley MD, Eric Herman MD, Benjamin J. Goldstein MD

First published: 04 August 2021

PM&R

Clinical Guidance | [Free Access](#)

Multi-disciplinary collaborative consensus guidance statement on the assessment and treatment of breathing discomfort and respiratory sequelae in patients with post-acute sequelae of SARS-CoV-2 infection (PASC)

Jason H. Maley MD, George A. Alba MD, John T. Barry PT, DPT, Matthew N. Bartels MD, MPH, Talya K. Fleming MD, Christina V. Oleson MD, Leslie Rydberg MD, Sarah Sampsel MPH [✉](#) ... [See all authors](#) ▾

First published: 13 December 2021 | <https://doi.org/10.1002/pmrj.12744>

Clinical Guidance | [Free Access](#)

Multi-disciplinary collaborative consensus guidance statement on the assessment and treatment of cognitive symptoms in patients with post-acute sequelae of SARS-CoV-2 infection (PASC)

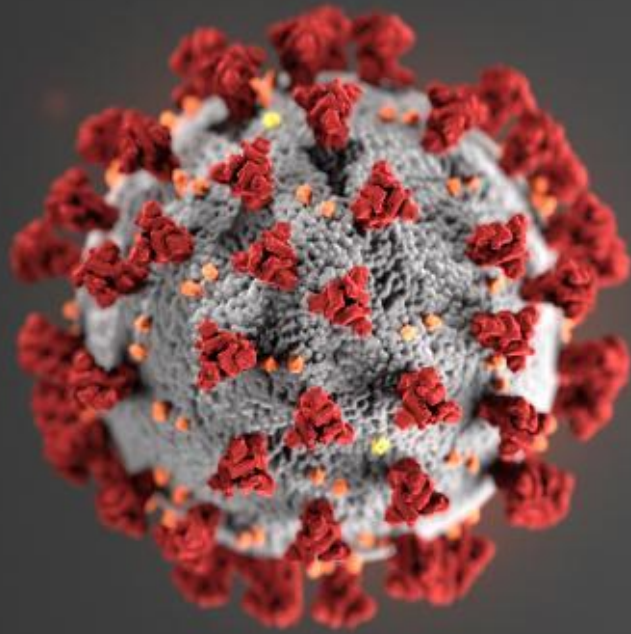
Jeffrey S. Fine MD, FAAPMR, Anne Felicia Ambrose MD, MS, Nyaz Didehbani PhD, Talya K. Fleming MD, Lissette Glashan MS, CCC-SLP, CBIS, Michele Longo MD, MPH ... [See all authors](#) ▾

First published: 13 December 2021 | <https://doi.org/10.1002/pmrj.12745>

Important take home messages

- 1. Post-COVID conditions are heterogeneous**
 - Standard surveillance methods may not capture all disease
 - Epidemiologic studies must characterize different subtypes and risk factors
- 2. Post-COVID conditions will remain a public health concern into the future**
 - Follow-up times will be measured in years, not weeks or months
- 3. Management of post-COVID conditions will require consistent engagement with patients and continued interagency collaboration**





For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.






Caring for the Long COVID Patient

October 26, 2022

Laszlo Madaras, MD, MPH

MIGRANT CLINICIANS NETWORK





What patients may experience...

- Acute covid is the first 3 weeks
- Post-acute covid is after 3 weeks
- Long covid is defined as beginning 3 months after acute infection
- There is no known endpoint
- Affects multiple organs
 - Lungs, persistent shortness of breath
 - Brain, headaches and brain fog, potential for stroke
 - Circulation, clots in the leg (DVT), lungs (pulmonary embolism)
 - Heart, myocarditis

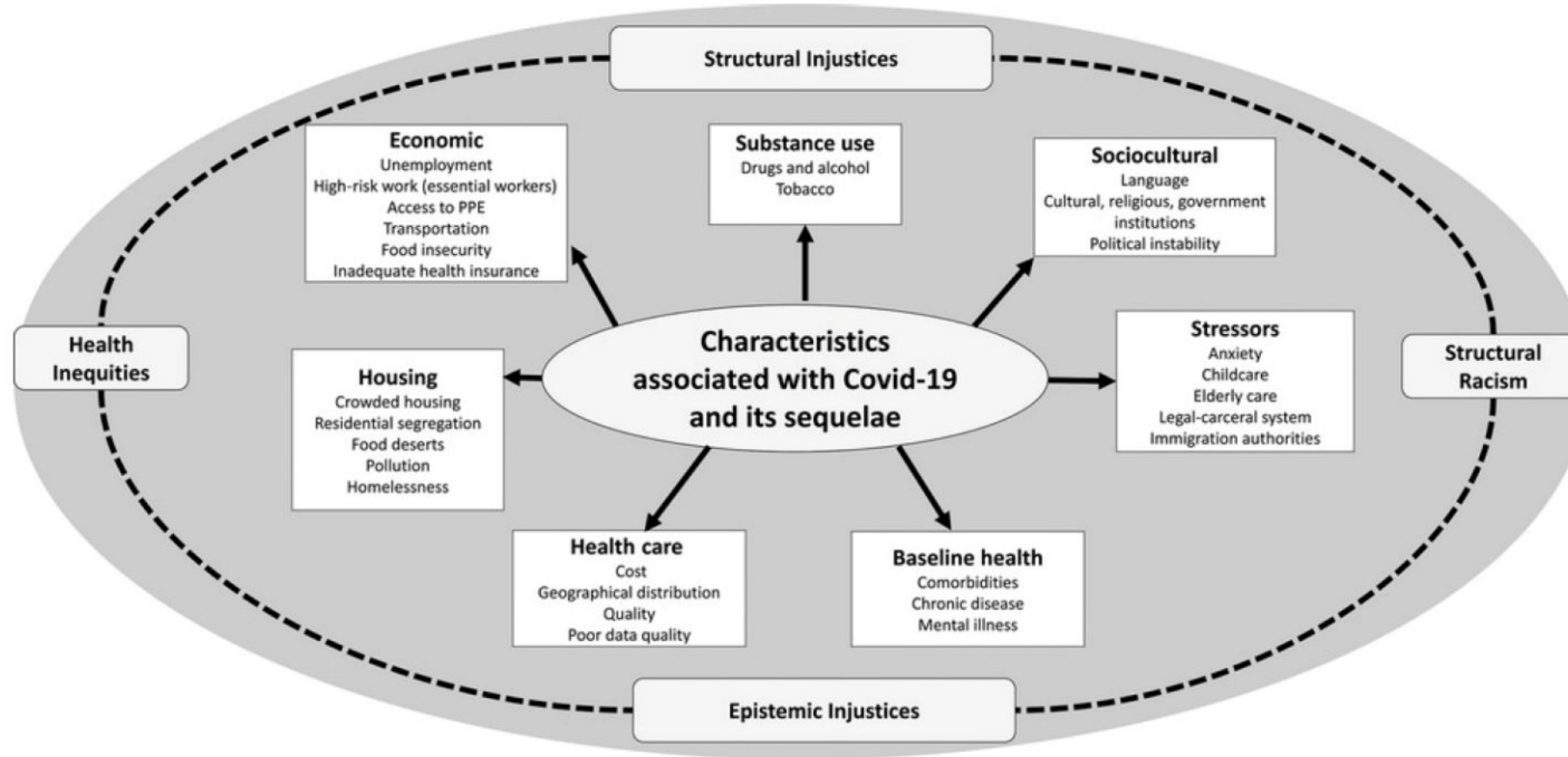


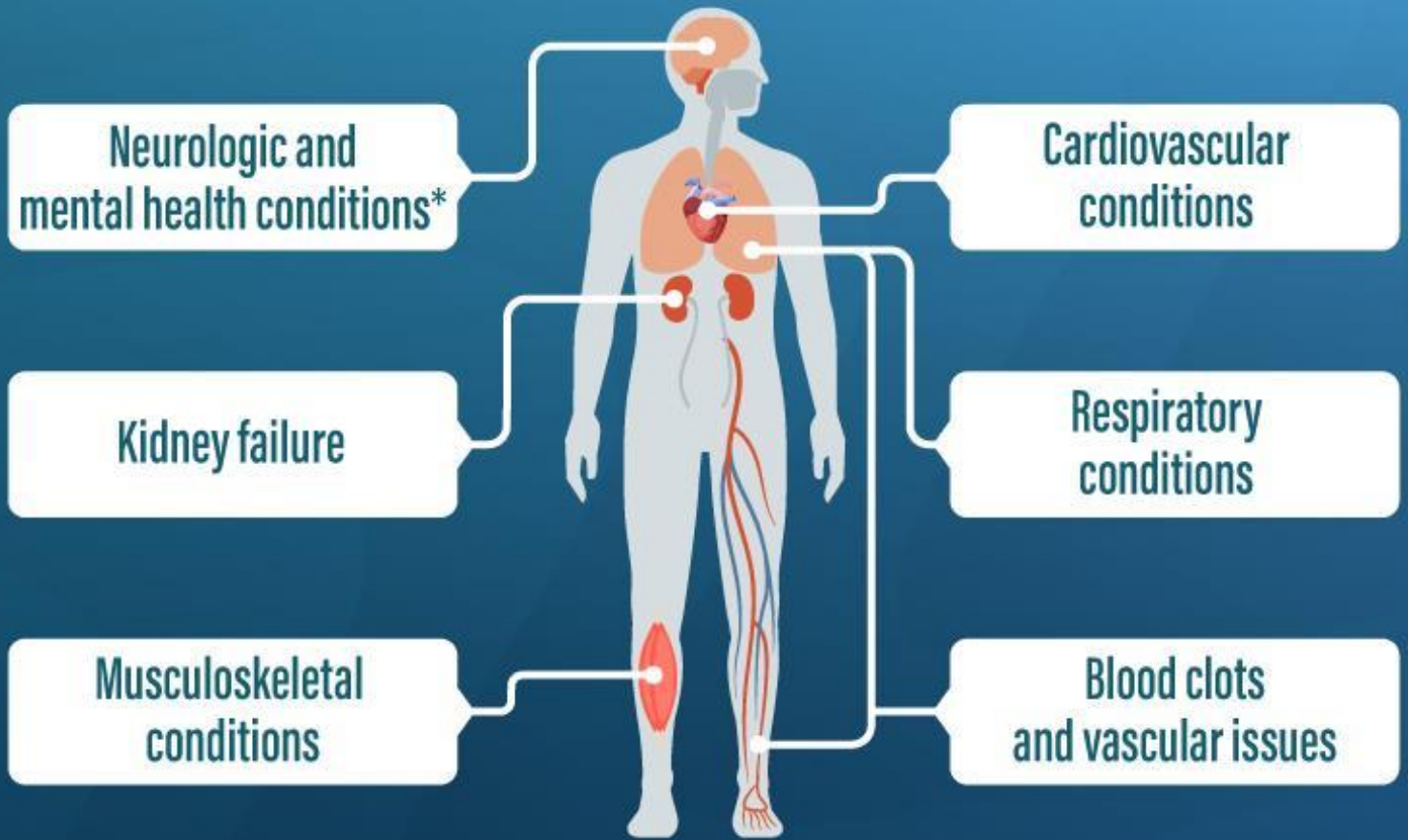
FIGURE 6-3 Characteristics associated with COVID-19 and Long COVID.

SOURCE: Republished with permission of John Wiley & Sons, from Berger et al., 2021, p. 523, in Zackary Berger presentation, March 22, 2022.

The Long-Covid Scenario Unfolds

- ✓ Is the person truly sick and if so with what?
- ✓ Getting a Covid test: Where? PCR, Rapid. Finding them. Waiting for results
- ✓ What to do during the waiting time? Range: 15 mins to 48 hours
- ✓ If positive, can the person isolate? If an adult, decisions: ? go to work, ? tell employer, isolate, childcare/parental care,
- ✓ If child is positive: how do you isolate a child? Who takes care of the child?
- ✓ How to quickly learn what to do: monitor for serious illness, treat for comfort
- ✓ When to call PCP, when to go to urgent care, when to go to the ED
- ✓ What if the person has underlying medical issues? Which ones matter?
- ✓ Does the person qualify for a treatment?
(<https://www.yalemedicine.org/news/covid-19-treatment-drugs>)
- ✓ Steps to get a treatment started within the first 5 days

Approximately
1 in 5 adults
ages 18+ have a
health condition
that might be related to
their previous COVID-19
illness, such as:



**Talk to your health care provider
if you have symptoms after COVID-19**



bit.ly/MMWR7121

* Adults aged 65 and older at increased risk

MMWR

Lack of Clarity Contributes to Difficult Adjustment

- No universal definition
- Not many specialized services yet
- Both health care workers and family members may greet a person's symptoms with skepticism or frustration due to no clear definitions and protocols established
- Long wait times for service even if you live near a center



Caring for Someone with Covid-19 or Long Covid?

Medical course varies considerably

They may have worries about work or family members or childcare or all of the above

May feel mildly or very ill

How to provide symptomatic relief?

When to go to ED or the doctor?

Does the person need to be hospitalized?

In the hospital; After the hospital; With Long Covid

I feel terrible! I'm not myself.



You should have; you shouldn't have.



Mental Health Burden

- sleep–wake disorders
- anxiety and fear-related disorders
- trauma- and stress-related disorders
- use of non-opioid and opioid analgesic drugs, antidepressant agents, sedatives and anti-anxiety medications.



Long Covid Symptoms as They Impact Family Life and Work Life

- ✓ Brain Fog
- ✓ Fatigue
- ✓ Lack of Concentration
- ✓ Executive Functioning Decline
- ✓ Memory
- ✓ Difficulty Breathing
- ✓ Depression
- ✓ Anxiety





Difficulty of Getting Medical Care for Long Covid Conditions

- This requires a lot of work on the part of the patient or patient's family
- Long Covid patients describe “Being a patient is a full-time job; being an advocate is overtime.”
- Anger, frustration, despair are added to the burden

When is illness or injury work related?

Any injury or illness resulting from or sustained in the course of any occupation or employment.

More than 50% likely due to work

USE THESE WORDS:

- “More likely than not” due to work
- Work “most likely” cause of the condition
- “But for the work” the condition would not exist

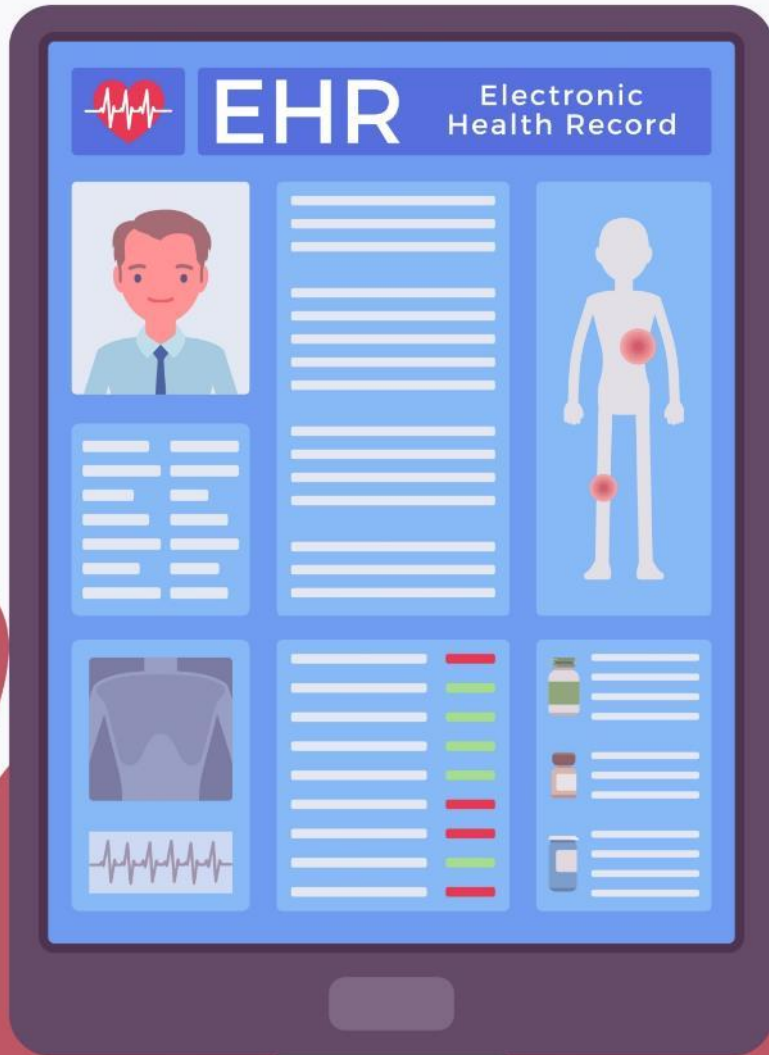


Chart Documentation Is Critical

- Thinking about the patient's future needs
- Is this work related?
- What documentation is needed to confirm a disability?

Connect with MCN!



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latest resources



Get updates
from the field



Attend our
virtual trainings

and a lot more at

www.migrantclinician.org



Bivalent vaccines

National Hispanic Medical Association – 10/26/2022

Jayne Morgan, MD – Exec. Dir. Health & Community Education

Disclosures

- *Moderna*
- *Novartis*
- *Randomize Now*
- *Stairwell Chronicles*

Disclosures

I am human and I make mistakes.

- Jayne Morgan, MD

**October
2022**

**More than 372 million
doses of Pfizer's vaccine**

**Nearly 236 million doses
of Moderna's vaccine
have been given in the US**

What is a bivalent vaccine?

- **Component of the original virus strain (broad protection)**
- **Component of the Omicron variant (better protection)**
- **Updated to better protect vs BA 4/5**
- **EUA August 31, 2022**
- **Submission of study to the FDA of BA1 – better immune response to bivalent formulation than the original monovalent booster**
- **Moderna 600 adults ages 18 and older**
- **Pfizer-BioNTech 600 adults ages 55 and older**

Omicron Family

BA4 and BA5 – the most transmissible and immune evasive strains to date. Currently causing 80% of cases

BA5 is the more transmissible of the two at 65% while BA 4 is 15%

BQ.1 and BQ.1.1 are descended from BA5

New bivalent booster should almost certainly provide improved protection

BQ.1. and BQ.1.1 are now greater than 11% of cases in the US

EUA / Boosters



Moderna

Bivalent

**EUA 6 years of
age and older**

Pfizer

Bivalent

**EUA 5 years of
age and older**

Novavax

Monovalent

**EUA 18 years of age and older
10/19/22**

refusing mRNA vaccines

only targets original strain

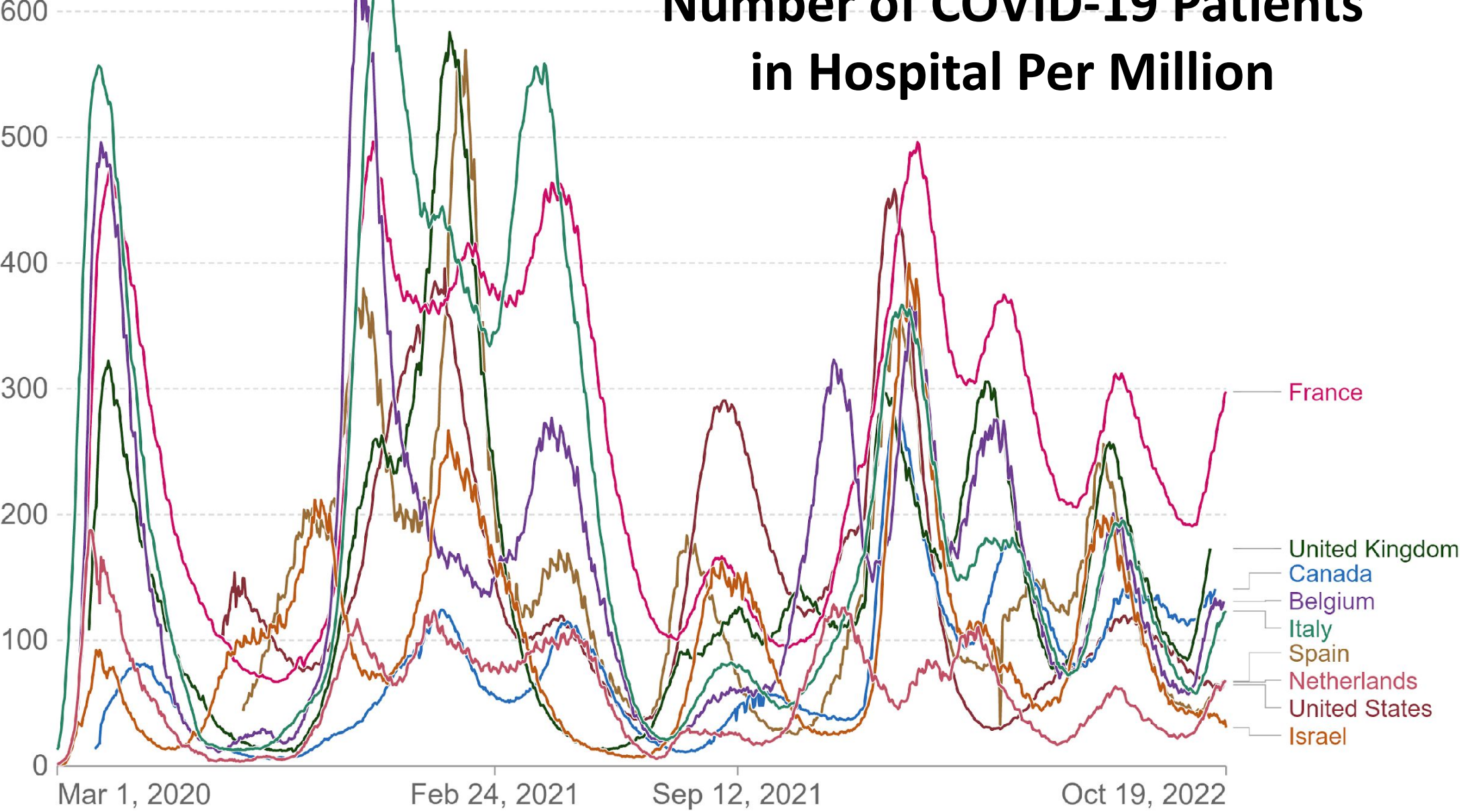
only used as a first booster shot

Anyone who has already had a
booster cannot opt to get this
vaccine currently.

Johnson and Johnson

not available

Number of COVID-19 Patients in Hospital Per Million



Source: Official data collated by Our World in Data – Last updated 20 October 2022

How did we get here?

14.8 million people have received the bivalent booster, i.e. <5% of those eligible

330 Americans still dying daily from the Covid-19

Herd Immunity missed



CDC Data

**Nearly 50% of adults
have not received
Booster #1**

**KFF- 50% of
Americans have heard
little or nothing of the
bivalent boosters**

80% Fully Vaccinated

93% 65 and up

74% 18 – 64

61% 12 – 17

32% 5 – 11

Source: New York Times

33% With a Booster

66% 65 and up

34% 18 – 64

8% 5 – 18 years

California

2020 and 2021, Latino residents accounted for 47% of Covid-19 deaths, make up 40% of the state's populace.

Jan – July 2022 Latinos were 34% of Covid-19 deaths.

Jan – July 2022 White deaths increased from 32% - 44% in the same time period, make-up 35% of the state's populace.

Age is a factor: 75 years and older 3/1- White/Latino.

**Pregnant?
Breastfeeding?
Expecting?
Planning?**

Yes.

Vsafe app - Well understood that primary Covid-19 vaccines and monovalent booster shots are safe and effective for this group. Assumed that bivalent boosters will not be any different.

Questions

If the bivalent booster provides better protection, can I get it as my primary shot?

I was infected with Covid-19 recently. Should I get the new bivalent booster? When?

Can I get the bivalent booster at the same time as my flu vaccine?

Should I get the same brand of bivalent booster as my other shots? Or can I mix and match between brands?

I am eligible for the bivalent Omicron booster. When should I get it? Who cannot get it?



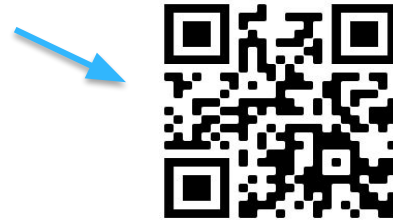
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NHMA Programs Update



- **NHMA 26th Annual Conference:** Chicago, IL – April 27 – April 30th, 2023: Hyatt Regency Chicago
- **NHMA VaccinateForAll Campaign**
 - Websites launched – HispanicHealth.info & Vaccinateforall.org
 - Register for FREE to join over 200+ individuals and organizations the champions today!



NHMA Upcoming Events

- Register here



If you have any questions about our programs or events, please email vgearity@nhmamd.org.

Thank You

- Please remember to complete our post-webinar survey to be entered to win a \$25 Amazon e-gift card!



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