

# Understanding Long COVID:

## Implications for Vocational Rehabilitation Professionals

Virtual Mini Conference  
January 11, 2023



*Presented by:*

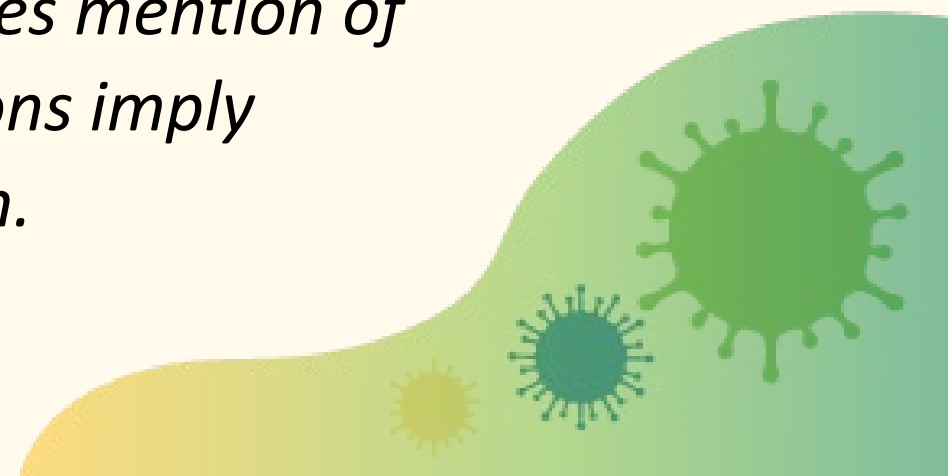




# Acknowledgement & Disclaimer

This training was developed with support from the: [Center for Innovative Training in Vocational Rehabilitation \(CIT-VR\)](#), funded under (#H263C190007) by the U.S. Department of Education, Office of Special Education and Rehabilitative Services (OSERS), Rehabilitation Services Administration (RSA).

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# Partners



# Logistics



Microphone and Video



Active Participation




CRC Continuing Education



Evaluation



# Agenda

- ❖ **2:00 – 2:15 pm Welcome and Logistics**
  - ❖ **2:15 – 3:15 pm Part 1**
    - **Session 1:** From Epidemiology to Clinical Care
    - **Session 2:** Psychosocial Issues and the Provision of VR Services
  - ❖ **3:15 – 3:30 pm Break**
  - ❖ **3:30 – 4:50 pm Part 2**
    - **Session 3:** Legal and Service Delivery Dimensions
    - **Session 4:** Accommodations in the Workplace
    - **Session 5:** The Stigma of Long COVID: Ethical Implications for VR Professionals
  - **4:50 – 5:00 pm Wrap up and Adjournment**
- 

# Part 1

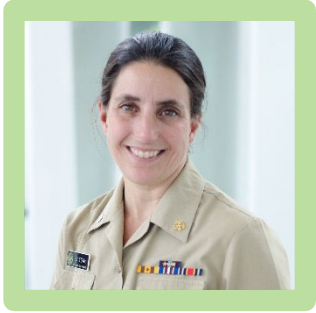
## **Session 1**

From Epidemiology to Clinical Care

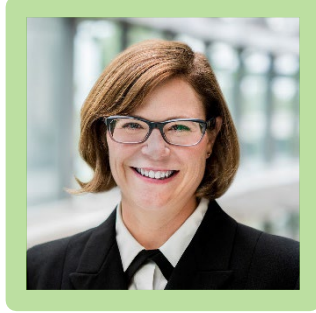
## **Session 2**

Psychosocial Issues and the Provision of  
VR Services

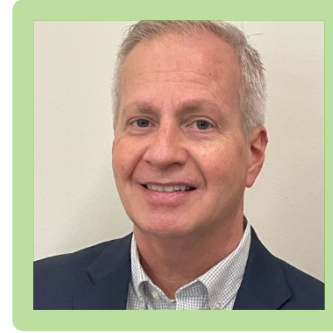
# Presenters



**Sharon Saydah, Ph.D. MHS,**  
Lead (acting) Post COVID  
Conditions and Long Term  
Sequelae Team  
*Centers for Disease Control  
and Prevention (CDC)*



**Jennifer Rittenhouse  
Cope, MD, MPH, FIDSA**  
Lead, Post COVID  
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*Centers for Disease Control  
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Research Specialist  
*Center for Rehabilitation  
Counseling Research  
and Education  
The George Washington  
University, Washington DC*







# Session 1

## From Epidemiology to Clinical Care

### **Your Presenters:**

- Sharon Saydah, Ph.D. MHS, Lead (acting), Post-COVID Conditions and Long Term Sequelae Team
- Jennifer Rittenhouse Cope, MD, MPH, FIDSA, Lead, Post COVID Conditions Team

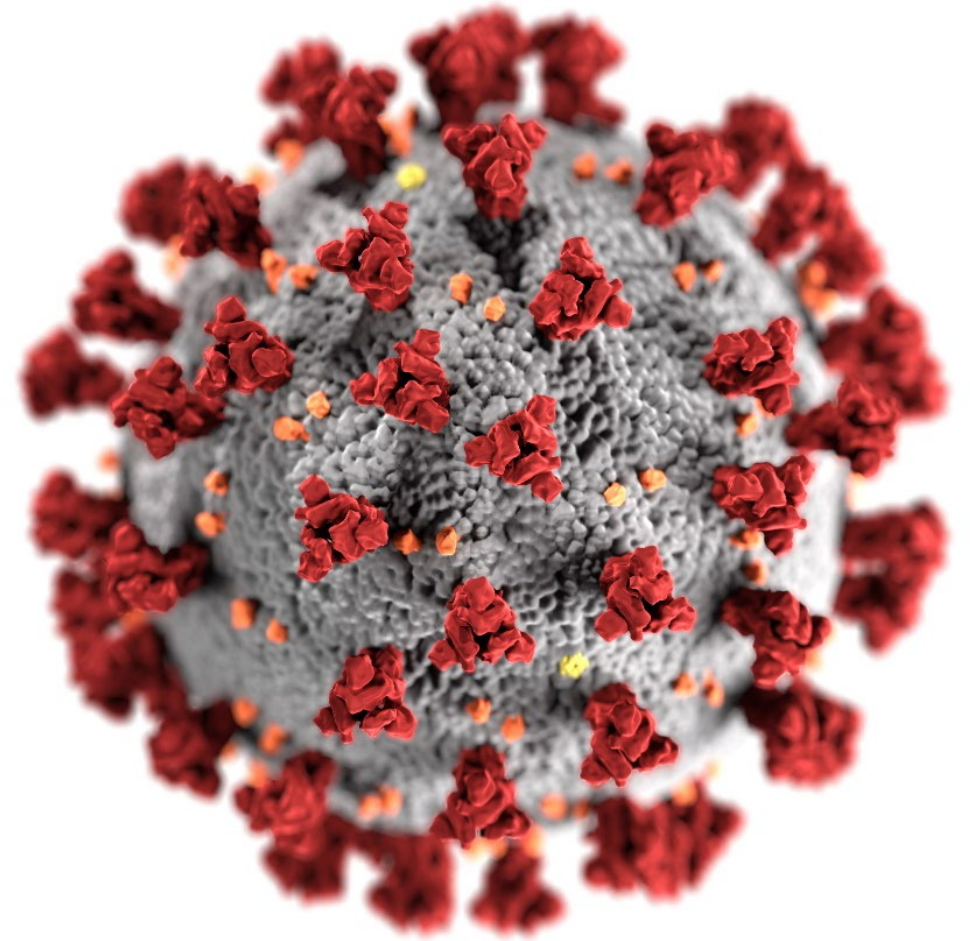
**Centers for Disease Control and Prevention (CDC)**



# Understanding Long COVID: From epidemiology to clinical care

Sharon Saydah, PhD, MHS  
Jennifer Cope, MD, MPH

Centers for Disease Control and Prevention



[cdc.gov/coronavirus](https://cdc.gov/coronavirus)

# Objectives

- Outline a framework for understanding post-COVID conditions or Long COVID
- Estimating the occurrence of Long COVID
- Discuss strategies for diagnosis and management of Long COVID patients

# Post COVID Conditions: Definition and Framework



# 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

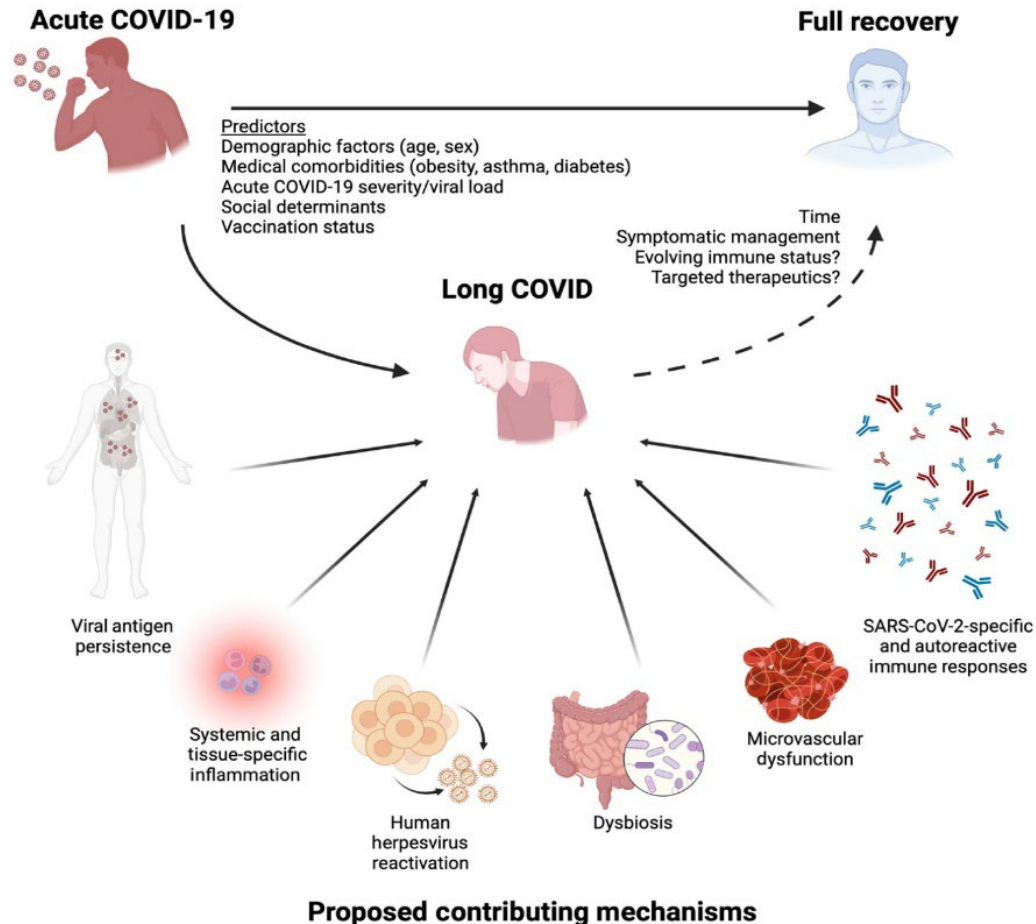
## Post-Acute Consequences of SARS-CoV-2 Infection (PASC)

- 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

# Multiple proposed potential mechanisms for post-COVID conditions

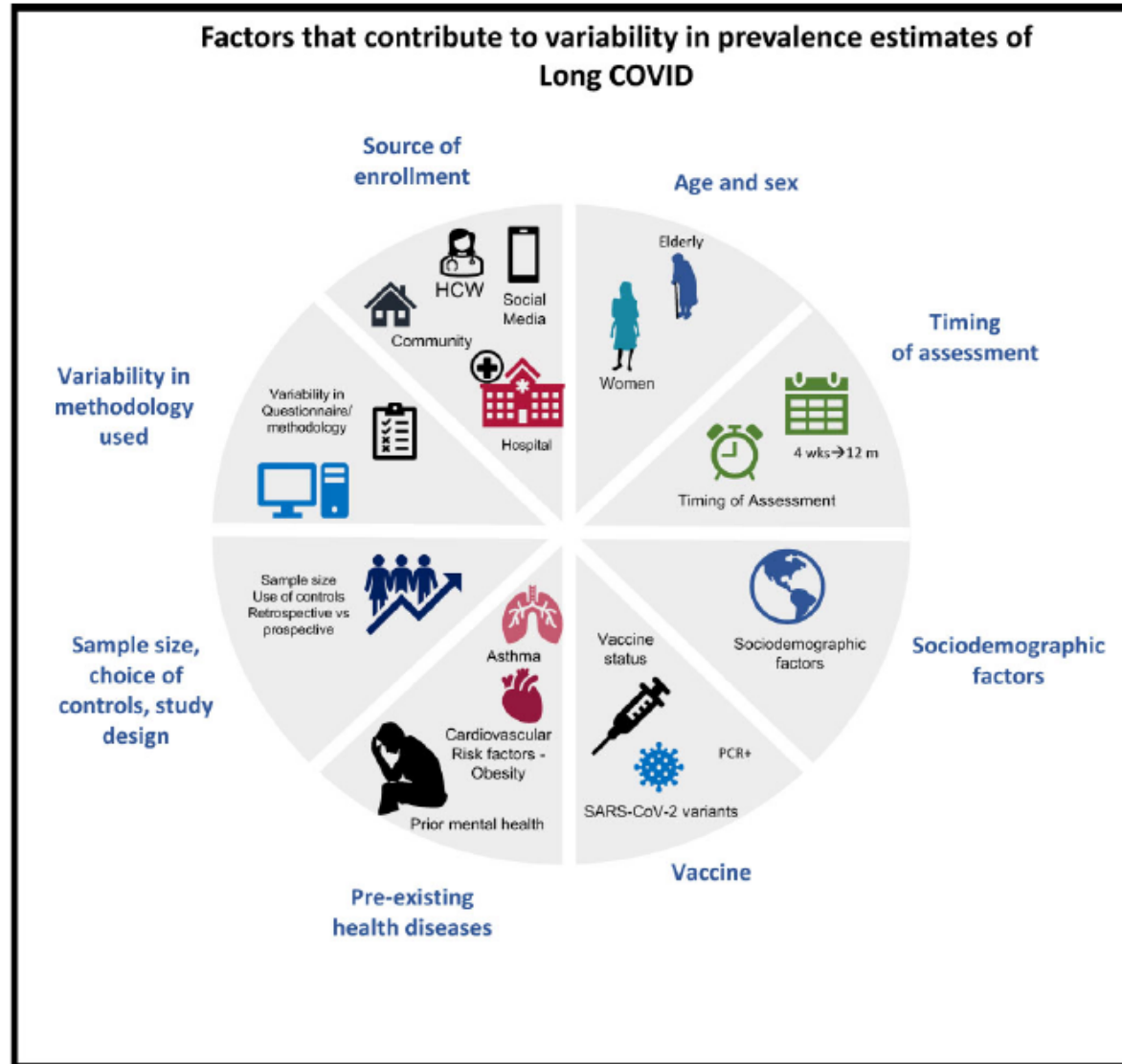


- Proposed mechanisms could include
  - viral persistence
  - systemic and tissue specific inflammation
  - auto immunity
  - microvascular dysfunction

Trends in Immunology

[Peluso and Deeks. Early clues regarding the pathogenesis of long-COVID: Trends in Immunology \(cell.com\) 2022](#)

# There is no single estimate of post-COVID conditions



- Challenges in understanding post-COVID conditions also contribute to reasons the estimates vary

[Long COVID: post-acute sequelae of COVID-19 with a cardiovascular focus | European Heart Journal | Oxford Academic \(oup.com\)](#)



# Estimating Occurrence of Post-COVID Conditions



# Percent of adults who ever had COVID and current report having Long COVID

- 14.6% of U.S. adults who ever had COVID currently report Long COVID
- Differs by demographics
  - Higher among females compared to males (17.3% v 9.3%)
  - Lower among Non-Hispanic Asian (6.9%), compared to non-Hispanic White (14.1), non-Hispanic Black (11.4%), and Hispanic (12.7%)



# Factors associated with an increased occurrence of post-COVID conditions

- Female sex
- Older age
  - Adolescents compared to younger children
  - Older adults compared to younger adults
- Acute disease severity
- Comorbidities
- Lower socio-economic status
- Unvaccinated

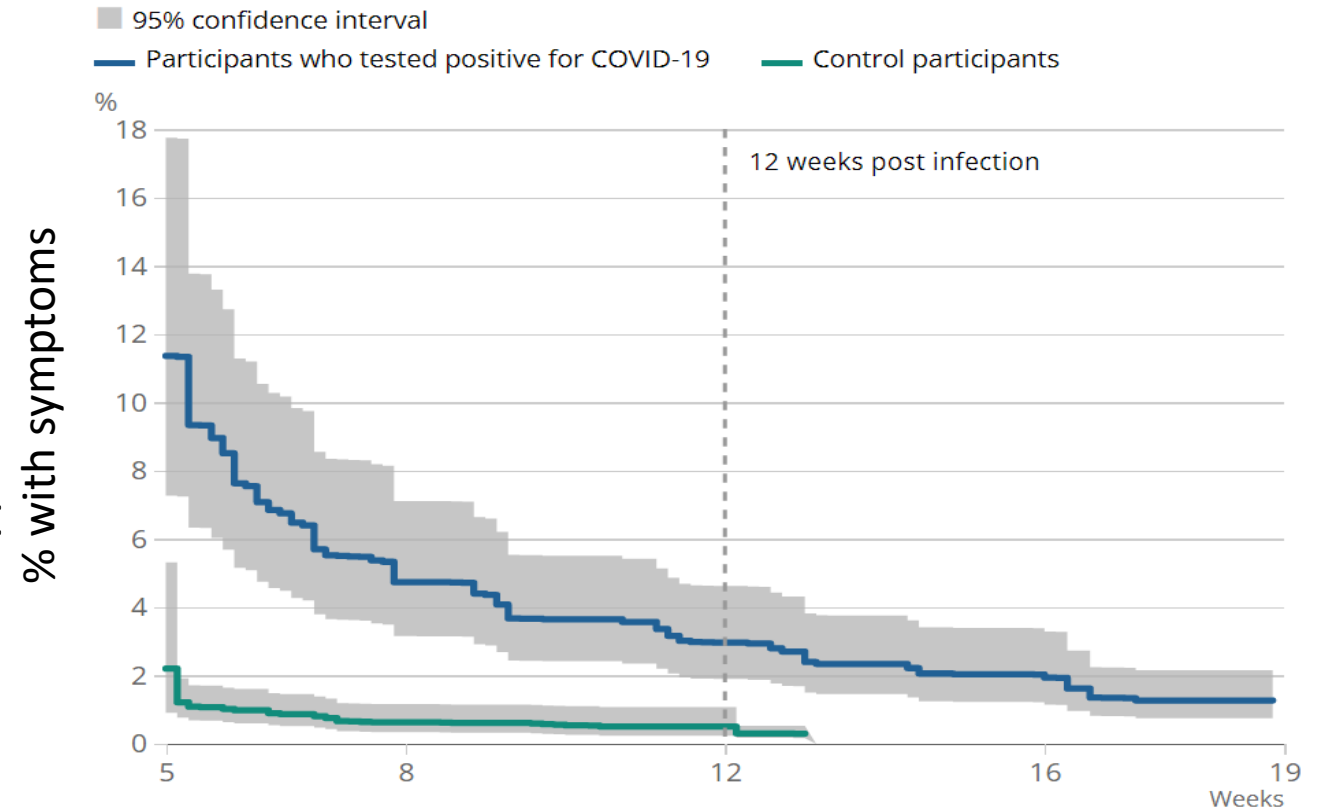
[Maglietta G et al. Prognostic Factors for Post-COVID-19 Syndrome: A Systematic Review and Meta-Analysis. JCM 2022](#)  
[Risk factors of post-COVID-19 condition attributed to COVID-19 disease in people aged 50+ in Europe and Israel - ScienceDirect](#)  
[Hastie. et al. Outcomes among confirmed cases and matched comparison group in the Long COVID in Scotland Study. Nature 2022](#)  
[Predictors of chronic COVID-19 symptoms in a community-based cohort of adults | PLOS ONE](#)  
[Frontiers | Hospital admission and vaccination as predictive factors of long COVID-19 symptoms \(frontiersin.org\)](#)



# 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

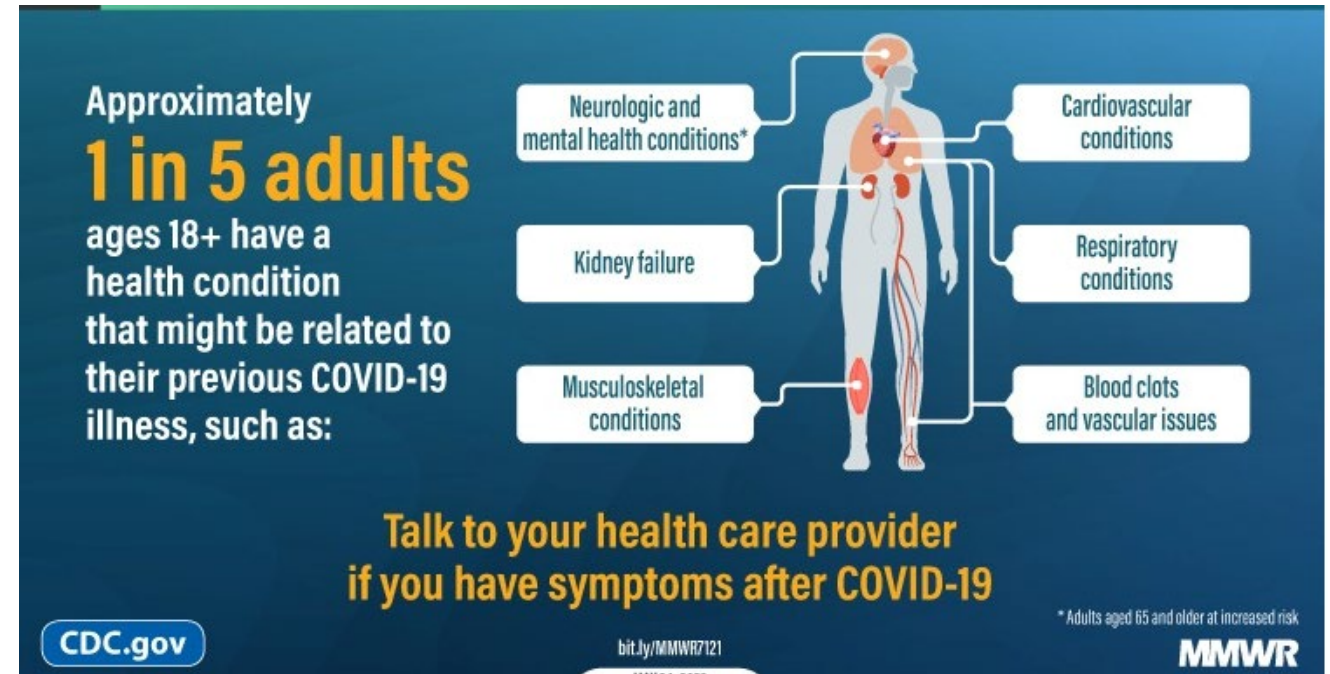


Source: Office for National Statistics - Coronavirus Infection Survey

[Technical article, figure 2. Office for National Statistics \(ons.gov.uk\)](https://ons.gov.uk/technical-articles/figure-2)

# 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.](#)

# Post-COVID conditions less likely to occur after vaccine breakthrough

- Report of on-going symptoms or new conditions less likely among those **vaccinated** prior to infection compared to **unvaccinated**:
  - **Less likely** to have **symptoms** from 12 weeks to 6 months after infection compared to persons unvaccinated
  - **Lower the occurrence new conditions** in persons with infection after vaccination compared to persons unvaccinated
  - COVID-19 illness among persons vaccinated tends to be less severe, lower risk for post-COVID conditions
- Results focused on adult population, only two studies included adolescents

- [Zisis et al. OFID. May 2022](#)
- [Impact of COVID-19 vaccination on the risk of developing long-COVID and on existing long-COVID symptoms: A systematic review – ScienceDirect](#)
- [UKHSA review shows vaccinated less likely to have long COVID than unvaccinated - GOV.UK \(www.gov.uk\)](#)

# Some studies, but not all, show vaccination after infection improved Long COVID symptoms

- Adults with Long COVID prior to vaccination
  - ~ 30% report improvement of symptoms after vaccination
  - ~ 30% report no change in symptoms
- Most studies cross-sectional, based on self-report of symptoms
- Children and adolescents not included

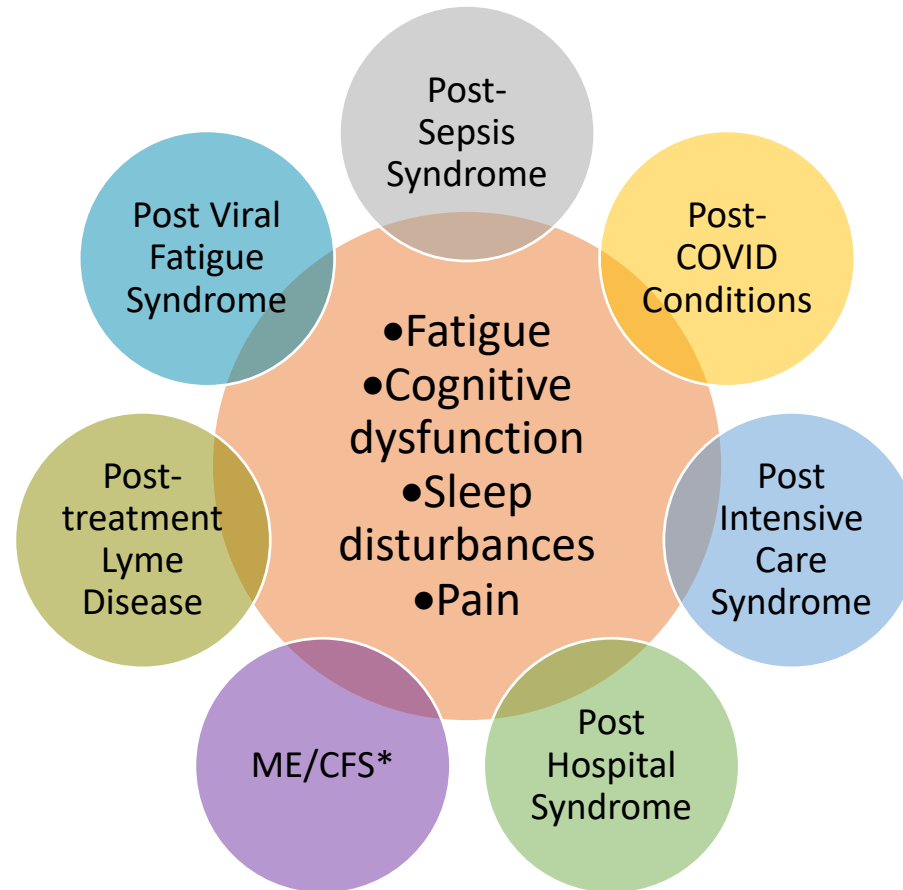
- [Impact of COVID-19 vaccination on the risk of developing long-COVID and on existing long-COVID symptoms: A systematic review – ScienceDirect](#)
- [UKHSA review shows vaccinated less likely to have long COVID than unvaccinated - GOV.UK \(www.gov.uk\)](#)
- [Long-Term Symptoms Among Adults Tested for SARS-CoV-2 — United States, January 2020–April 2021 | MMWR \(cdc.gov\)](#)



# Diagnosis and management strategies



# Syndromes with post acute sequelae



# 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



# 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

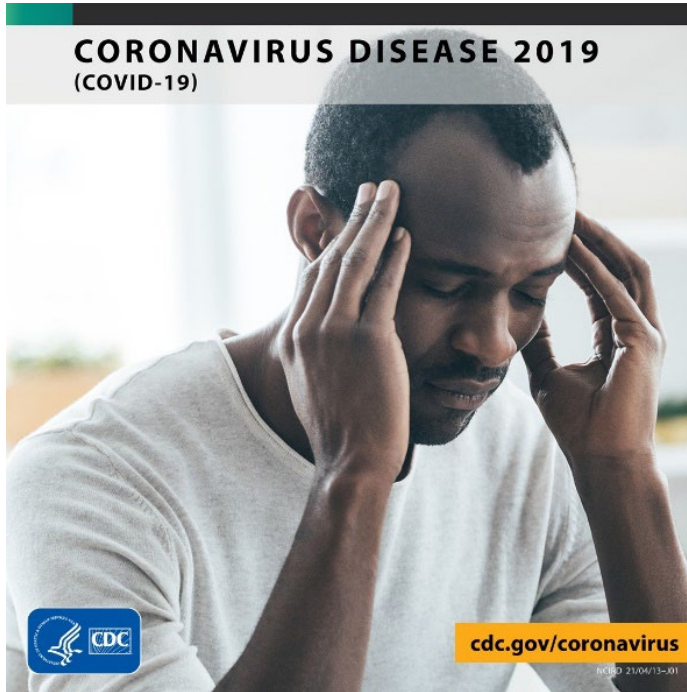
## Neurological symptoms

- 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

# 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 \(cdc.gov\)](https://www.cdc.gov/post-covid-19/)

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

**U09.9 Post COVID-19 condition**



# Healthcare Provider Appointments for Post-COVID Conditions

- Listen to the patient's story
- Questions to ask:
  - What is your activity level?
  - What activities make your illness worse?
  - What improves or worsens your symptoms?
- Outline next steps:
  - Additional tests needed
  - When test results will be available
  - When to return for next visit



<https://www.cdc.gov/coronavirus/2019-ncov/long-term-effects/post-covid-appointment/index.html>

# Healthcare Appointment Checklist for Post-COVID Conditions | COVID-19 |

Accessible link: <https://www.cdc.gov/coronavirus/2019-ncov/long-term-effects/post-COVID-appointment/index.html>

This checklist is designed to help patients and caregivers get the most out of appointments with healthcare providers for post-COVID conditions.

## Before the Appointment

- ☐ Ask the new provider's office if they need **paperwork** signed so your medical records can be sent to them directly.
- ☐ Keep a **journal or a list** for a week or two to document your activities, symptoms, their severity, and anything that made you feel better or worse.
- ☐ Prepare a brief **report** that summarizes your experience and symptoms and describes your best and worst days.
- ☐ Make a list of your **current medications/supplements**.
- ☐ Make a list of **questions to ask your healthcare provider**. Identify which ones are a priority for you (in case time is limited).
- ☐ Make a **plan for remembering** your conversation with your healthcare provider — e.g., taking notes or bringing a friend.
- ☐ If needed, arrange **transportation** to your appointment.

## During the Appointment

- ☐ Tell your provider the most important **symptoms or issues** you'd like to discuss.
- ☐ Answer the **provider's questions**.
- ☐ Share your **medication/supplement list**.
- ☐ Discuss your **level of activity**.
- ☐ **Ask your own questions**, starting with your priorities and issues.
- ☐ Make sure you understand the **next steps**, such as tests, follow-up, referrals, and future appointments.
- ☐ Ask for an **appointment summary**. If needed, ask the provider to write down or print out any instructions, medication names, or diagnoses.

## After the Appointment

- ☐ **Make appointments** for follow up.
- ☐ **Record future appointments**, including tests, in your calendar. If others will go with you or drive you to future appointments, make sure the appointments are on their calendars too.
- ☐ Follow your **provider's instructions** to the best of your ability.
- ☐ Contact your provider's office with any **questions or clarifications**.
- ☐ Continue to record symptoms and keep your **journal**, so you can refer to updates or changes during your next appointment.
- ☐ Update and keep track of **medications and supplements**.



For more information on post-COVID conditions, please visit <https://www.cdc.gov/coronavirus/2019-ncov/long-term-effects.html>.

CS 325714-D | 09/07/2021

Accessible Link: <https://www.cdc.gov/coronavirus/2019-ncov/long-term-effects/post-COVID-appointment/index.html>



# Long COVID (PASC) Clinical Guidance Statements



Clinical Guidance | [Free Access](#)

## Multidisciplinary collaborative consensus guidance statement on the assessment and treatment of fatigue in postacute sequelae of SARS-CoV-2 infection (PASC) patients

Joseph E. Herrera DO, William N. Niehaus MD, Jonathan Whiteson MD, Alba Azola MD, John M. Baratta MD, MBA, Talya K. Fleming MD, Soo Yeon Kim MD, Huma Naqvi MD, Sarah Sampsel MPH ✉, Julie K. Silver MD, Monica Verduzco Gutierrez MD, Jason Maley MD, Eric Herman MD, Benjamin Abramoff MD, MS

First published: 04 August 2021 | <https://doi.org/10.1002/pmrj.12684>

<https://onlinelibrary.wiley.com/doi/epdf/10.1002/pmrj.12684>



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>

<https://onlinelibrary.wiley.com/doi/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>

<https://onlinelibrary.wiley.com/doi/10.1002/pmrj.12745>



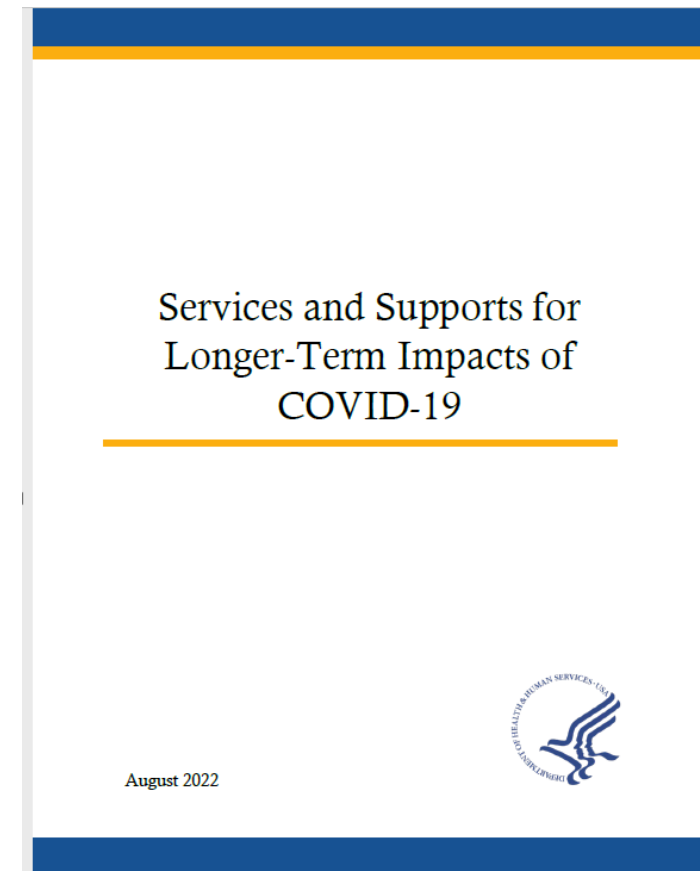
# Services and Supports for Longer-Term Impacts of COVID-19

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## Purpose

To outline the mechanisms across USG that assist people who are experiencing needs related to the longer-term effects of COVID-19.

**Catalogs over 200 existing services and supports** available to individuals experiencing Long COVID, health care workers who work with and treat individuals experiencing Long COVID, individuals experiencing longer-term impacts of COVID-19, including mental health and substance use challenges, and individuals dealing with losing a caregiver, family member, or loved one to COVID-19.



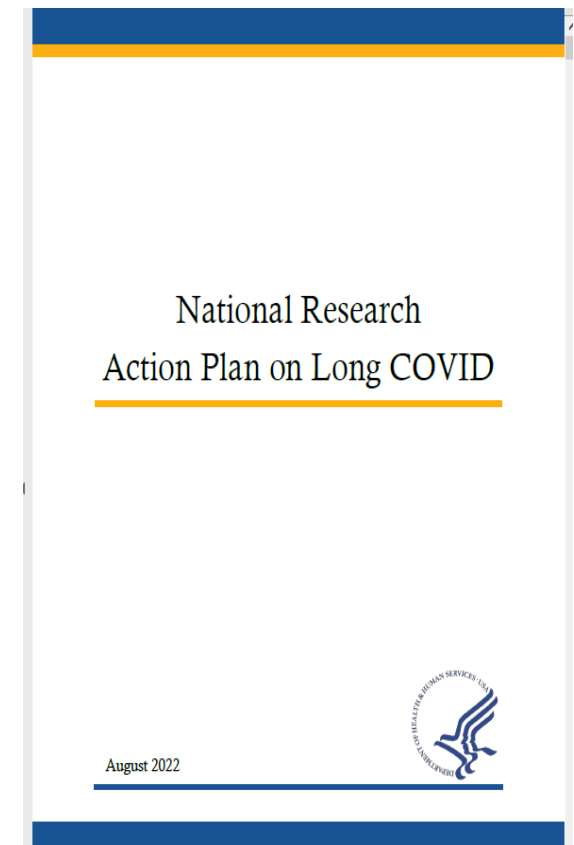
# National Research Action Plan on Long COVID

## Purpose

To advance progress in prevention, diagnosis, and treatment of Long COVID; and provision of services and supports for individuals, families, and communities experiencing Long COVID.

## Audience

- Intended for U.S. government agencies and to inform Congress and researchers both public and private, including academia.
- Relevant to state policymakers, foundations and other funders of research, healthcare and service personnel, public health partners, Long COVID patients and advocacy groups, pharmaceutical companies, and the general public.





# RECOVER

Researching COVID to Enhance Recovery

## RECOVER: Researching COVID to Enhance Recovery

We're building a nationwide study population to support research on the long-term effects of COVID-19. Join the search for answers.

LEARN MORE →



Interested in volunteering for RECOVER studies? Sign up ↗ and be notified when studies open for enrollment.




[HOME](#) | [NEWS](#) | [FUNDING OPPORTUNITIES](#) | [ABOUT](#) | [FAQS](#) | [CONTACT](#)

## What is PASC?

SARS-CoV-2 is a virus that can infect the body and is referred to as a SARS-CoV-2 infection. Recovery from SARS-CoV-2 infection can vary from person to person:



**Acute Infection:**  
Most people recover quickly from acute SARS-CoV-2 infection. People



# RECOVER

Researching COVID to Enhance Recovery

### RECOVER Research Questions:


What does recovery from SARS-CoV-2 infection look like among different groups?

How many people continue to have

How many people develop new sym

What causes these health effects?

### Stay tuned and sign up for email updates.



To ensure this research is informed by patients, RECOVER will engage regularly with people who have experienced SARS-CoV-2 infection.


What types of updates would you like to receive?

Information about volunteering for RECOVER studies →

RECOVER updates and the latest research findings →




Announcements on related research funding, training, and technical assistance opportunities →

Interested in volunteering for RECOVER studies? Sign up ↗ and be notified when studies open for enrollment.



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## Taking a united approach toward recovery



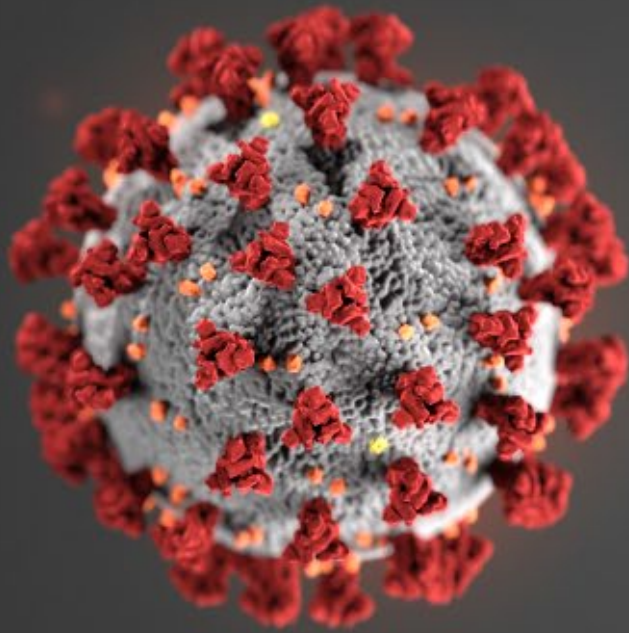
Together we can learn more. The more voices

# 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. Estimates on the occurrence of post-COVID conditions range widely depending on methodology used**
  - Likely not uncommon following SARS-CoV-2 infection
- 3. Management of post-COVID conditions will require consistent engagement with patients and continued interagency collaboration**



# Contact Information



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



# Session 2

## Psychosocial Issues and the Provision of VR Services

### Your Presenters:

- Kenneth C. Hergenrather, PhD CRC,  
Co-Director Center for Rehabilitation Counseling Research and Education
- Barbara Dos Santos MA, LMHC, NCC, Research Specialist  
**Center for Rehabilitation Counseling Research and Education**  
**- The George Washington University, Washington DC**





# Learning Objectives: Psychosocial Issues and the Provision of Vocational Rehabilitation Services

- ✓ Introduce psychosocial issues related to Long COVID.
- ✓ Introduce the Social Ecological model.
- ✓ Explore psychosocial issues within the framework of the Social Ecological Model  
Implications for rehabilitation service providers working with client diagnosed with Long COVID.

In June 2022, among 62,000 persons completing the U.S. Census Bureau online Household Pulse Survey, 35.1% self-reported having had COVID-19 and Long Covid symptoms. 18.9% reported currently having Long COVID symptoms (Levine, 2022).



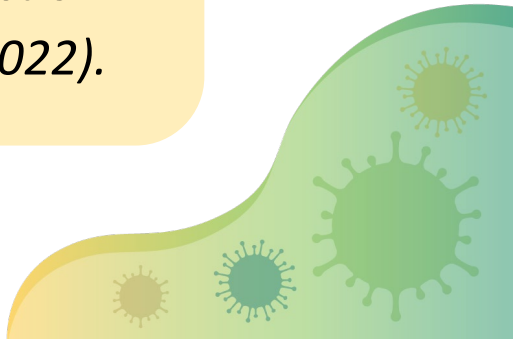
# Psychosocial Factors (American Psychiatric Association, 1994, 2015)

**Social, cultural and environmental phenomena and influences that affect mental health and behavior that include:**

- Primary support group
- Social environment
- Education
- Occupation
- Housing
- Economic status



*7.5 million Americans may have Long COVID symptoms, many of whom are working age adults. Fewer than ½ of Americans that worked fulltime prior to COVID-19 infection are working fulltime post COVID-19 infection (Burns, 2022).*





# Conceptual Model of Psychosocial Influences on Health (Argentieri et al, 2022)

## Social

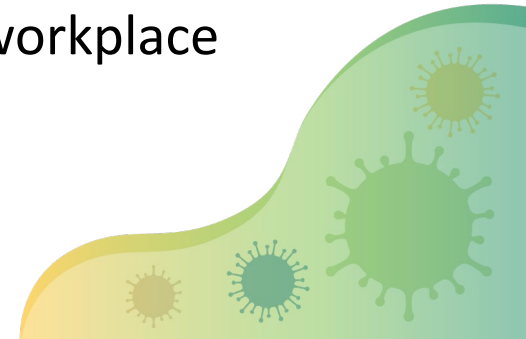
- (e.g., social support or isolation, marital status, family relationships, abuse and trauma, discrimination, education, socioeconomic status)

## Culture

- (e.g., acculturation, language barriers, religion or spirituality, technological change, stigma, beliefs)

## Environmental

- (e.g., pollution, neighborhood conditions, green space, material deprivation, workplace conditions, natural disasters)





# The American Psychiatric Association (2015) Dictionary of Psychology Defines:

## **Psychosocial Factors:**

- Social, cultural, and environmental phenomena and influences that affect mental health and behavior.

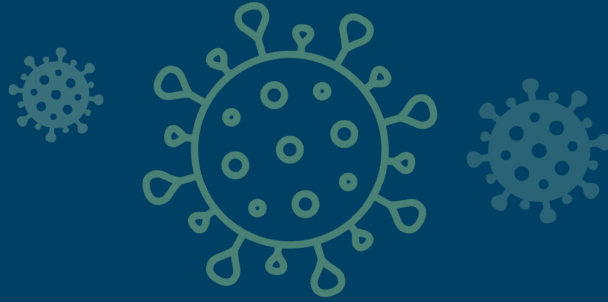
## **Psychosocial Stressors:**

- A life situation that creates an unusual or intense level of stress that may contribute to the development or aggravation of mental disorder, illness or maladaptive behavior (e.g., disability, change in family relationships including death, health prognosis, relocation, adverse events, work environment). Stress can present as healthy and adaptive or lead to dysregulation.

## **Positive Psychosocial Factors:**

- Correlated with resilience, support, and engagement; reducing stress and health improvement (Berkman et al., 2000; Cozier et al., 2018; Davydov et al., 2010).





# Social-Ecological Model

# Social-Ecological Model Levels



# Social Ecological Model (SEM; CDC, 2021)

**The SEM incorporates four levels of social and physiological influences of behavior :**

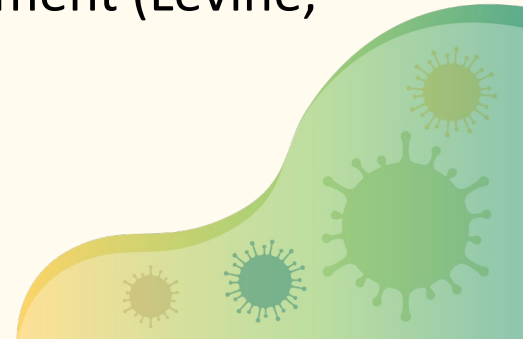
- **Individual level** (e.g., attitudes, behaviors, beliefs, distress, emotion, knowledge, risk, stigma, substance use)
- **Relationship level** (e.g., family, friends, intimate relationships, social networks)
- **Community level** (e.g., community services, health care providers, school, workplace)
- **Societal level** (e.g., local, state, federal)

*Ecological models (e.g., SEM) are reported as having most utility when they are behavior-specific and include the identification of critical factors (CDC, 2021; Sallis et al., 2008)*



# Individual Level (e.g., attitudes, behaviors, beliefs, distress, knowledge, risk, stigma, substance use)

- Post-COVID-19 daily life impairment was associated with probable depression, probable anxiety, worry about COVID-19, and perceived stress. Wang et al., 2022).
- COVID-19 patients have higher rates of mental illness similar to the rates of trauma survivors (e.g., loss of loved ones, loss of home, loss of job; Schreiber, 2021).
- Long COVID presents as a combination of mental health symptoms (e.g., anxiety, depression, adjustment disorders, cognitive decline) and physical symptoms (Stucke et al., 2022).
- One U.S. COVID-19 death resulted in nine relatives experiencing bereavement; racial and ethnic groups were disproportionately affected processing grief and bereavement (Levine, 2022).

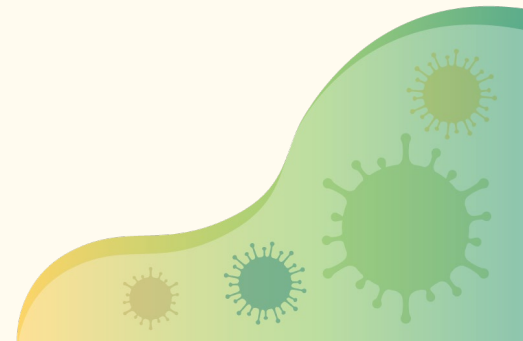






# Individual Level (e.g., attitudes, behaviors, beliefs, distress, knowledge, risk, stigma, substance use) continued

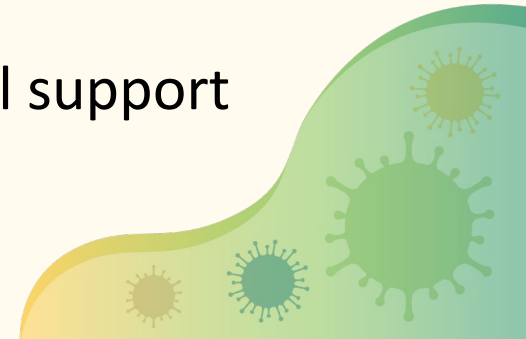
- Experiences of discrimination because of stigma of a Long COVID diagnosis (Samper- Pardo et al., 2022).
- Among persons with Post Covid-19, overall fatigue was largely predicted by anxiety, apathy, depression, diminished working memory, and lower sustained attention (Calabria et al., 2022).
- Among persons with Post COVID-19, deficits presented in long-term memory, executive functioning (e.g., planning, decision-making, working memory, response to feedback, inhibition, flexibility; Calabria et al., 2022).
- Because of the daily Long COVID symptoms and limitations experienced, person with Long COVID reported (Samper-Pardo et al., 2022):
  - Episodes of sadness for their body to return their previous life and mourning the life they have lost
  - Anxiety about the future,
  - Fear of reinfection or relapse
  - Fear of returning to work with diminished abilities
  - Fear of being re-infected and the impact upon functioning





# Relationship Level (e.g., family, friends, intimate relationships, social networks)

- Persons with Long COVID report receiving social support from family and friends (Samper-Pardo et al., 2022).
- Each U.S. COVID-19 death resulted in nine relatives experiencing grief and bereavement; racial and ethnic groups were disproportionately affected (Levine, 2022).
- There has been physical-psychological divide from which patients may feel that their service providers dismiss them and suggest that the presenting concern may all be in their minds. (Stucke et al., 2022).
- Persons with Long COVID report receiving less support when their social support includes COVID-19 deniers (Samper-Pardo et al., 2022).





# Community Level (e.g., community services, health care providers, school, workplace)

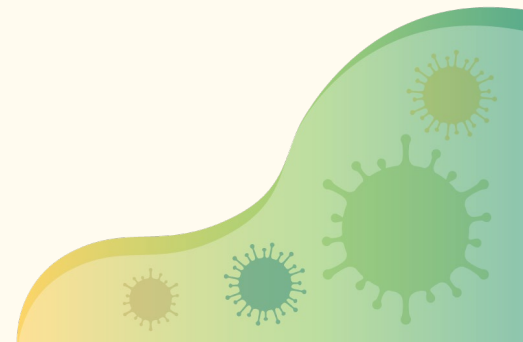
- Persons with Long COVID to report dismissive attitudes by medical providers; resulting in many people avoiding care and presenting concerns may worsen (Samper-Pardo et al., 2022; Stucke et al., 2022).
- Because Long COVID conditions may not present as consistent across clients, it's important to understand the client's psychosocial environment, socioeconomic environment and health/clinical data (Argentieri et al., 2020).
- Research suggests the need for the development and evaluation of interventions for persons with Long COVID that explore the interaction between mental health and physical health integrate the symptoms of Long COVID with evidence-based treatments for mental illness and substance use (Hawke et al., 2022).
- Persons with Long COVID experience discrimination because of a Long COVID diagnosis stigma (Samper-Pardo et al., 2022).
- People may perceive that a person with Long COVID will infect others with COVID-19 (Samper- Pardo et al., 2022).





# Societal Level (e.g., local, state, federal)

- Americans with Disabilities Act
- COVID vaccines and boosters:  
[Centers for Disease Control and Prevention \(CDC\) orders](#)
- County/City Government websites
- City/County Health Department websites
- State Vocational Rehabilitation Services website
- Provider of Vocational Rehabilitation services websites



# Vocational Rehabilitation Services

- Vocational Rehabilitation (VR) Services, grounded in Federal legislation, provide vocational support (e.g., job preparation, post-secondary education, advocacy skills, achieve gainful employment) to persons with disabilities who meet the criteria as stated in the Americans with Disabilities Act.
- Public VR services are provided by state VR agencies.
- VR services may also be provided by state/community agencies (e.g., non-profit, faith-based, for-profit, workforce).





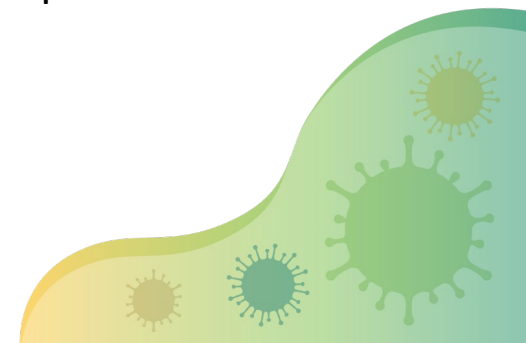
# Implications for Vocational Rehabilitation Services

## **Maxwell et al. (2022) suggests an integrated approach**

- Recognize Long COVID as a multisystem (e.g., mental health, physical health) disease
- People with Long-COVID have a greater risk for mental health disorders
- Mental health symptoms and physical symptoms likely present as correlated
- Listen to the patient as presenting concerns may not be apparent

## **When working with clients diagnosed with Long COVID**

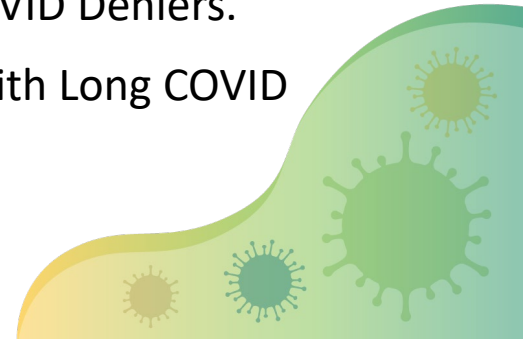
- Provide community (e.g., staff, VR service provider, supervisors, administrator) training addressing knowledge and awareness of Long COVID through the integration of medical, psychological and social health polices.
- Psychoeducation in the workplace may reduce the frequency of negative experiences in the workplace and structural inequities that client/employees may see as a risk to those impacted by Long COVID.





# Implications for Vocational Rehabilitation Services continued

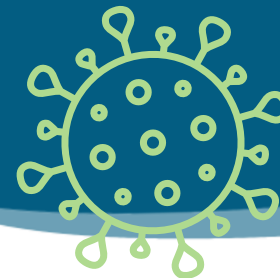
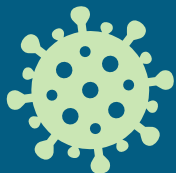
- Listen non-judgmentally; refrain from dismissing client stated concerns.
- Assess for risk using a trauma informed care approach.
- [Encourage self-care strategies \(e.g., sleep patterns, diet, setting goals/priorities, exercise, staying connected with others\); National Institutes of Mental Health 2022.](#)
- Provide psychoeducation for clients, vocational rehabilitation service providers, vendors, staff, management, employers.
- Engage clients in goal setting for activities for daily living and job readiness.
- Provide Self-management training strategies to address presenting concerns that may impact service provision (e.g., intrusive images, worries, fears, coping).
- Consider physical assessments (e.g., mobility, pain, breathing difficulties, fatigue, cognition) and executive functioning assessments (e.g., working memory, sustained attention).
- Explore social support systems (e.g., family, friends, social group) and influence/presence of COVID Deniers.
- Research suggests the need for the development and evaluation of interventions for persons with Long COVID that explore the interaction between mental health, cognition, and psychological well-being (Hawke et al., 2022).



# Long COVID Concerns

Begin by asking what part/s of Long COVID is/are their most prominent concerns ( Schreiber, 2021; Vannorsdall et al., 2022) to **(1) explore how these may impact the ability to obtain and maintain competitive and integrated employment** and **(2) create strategies to address these.**

- Anxiety
- Brain fog
- Confusion
- Cognitive impairment
- Fatigue
- Emotional distress
- Executive functioning deficits
- Feelings of hopelessness
- Functional decline
- Inability to feel pleasure
- Insomnia
- Problems with concentration and attention
- Relationships with others
- Physical functioning/respiratory functioning
- Short-term memory loss
- Stigma





The image features a light cream background with decorative elements in the corners. The top-left and bottom-right corners contain wavy, organic shapes in shades of green and yellow. Within these shapes are stylized virus-like particles, represented as circles with radiating spikes. The text "Thank You!" is centered in a dark blue, sans-serif font.

Thank You!

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# Break

15 Minutes

