

Addressing Health Care for Long Haulers

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COVID-19 Long Haulers

- ▶ Officially named PASC (SARS-CoV-2) or post-COVID=19 syndrome
 - Long haulers are people who have not fully recovered from COVID-19 weeks or even months after first experiencing symptoms
 - Some experience continuous symptoms for weeks or months, while others feel better for weeks, then relapse with old or new symptoms
- ▶ The list of symptoms extensive and varied
 - Many post-infectious syndromes have been recognized in the last 80 years
 - More commonly documented in women
 - Abnormalities in nervous, immune and metabolic systems

CDC

- ▶ Post-COVID conditions are a wide range of new, returning, or ongoing health problems people can experience four or more weeks after first being infected with the virus that causes COVID-19. Even people who did not have COVID-19 symptoms in the days or weeks after they were infected can have post-COVID conditions. These conditions can present as different types and combinations of health problems for different lengths of time.

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

Johns Hopkins

- ▶ Risk factors are similar for other multi-health issues (smoking, diabetes, obesity, heart/lung)
- ▶ No link has been determined for those with lingering impact from a Positive COVID event
 - Spectrum includes minor to major problems, mild COVID to more involved COVID events
 - “Long term” is unknown since the majority being diagnosed have only been documented for a year or less
- ▶ Clinicians have seen post-viral symptoms from SARS and MERS but there is limited data

<https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/covid-long-haulers-long-term-effects-of-covid19>

COVID-19 Long Haulers

▶ Symptoms

- Brain fog, memory loss, reduced attention
- Fatigue
- Headaches
- Dizziness
- Shortness of breath
- Heart palpitations
- Loss of taste/smell
- Pain (joints and muscles)
- Depression/anxiety

▶ Increased risk

- Organic dysfunction of the heart, lungs, kidneys, and skin
- Stroke
- Dementia
- Muscle and nerve damage
- Encephalitis
- Vascular disorders

Opportunity for Rural Health Systems

- ▶ Patients not able to return to prior settings (home, AL, SNF)
 - Mayo Clinic: may feel effects for more than a year
- ▶ Palliative/Hospice organizations working with Administration for Medicaid coverage
 - Palliative care – Better pain management, potential for fewer hospitalizations
- ▶ Best practices working with LTC
 - Addressing at-risk populations
 - Addressing compromising side effects post-hospital

Outside the Box (Hospital)

- ▶ **Home Health:** medical and nonmedical benefits such as light household chores to PT/OT at home, around the clock support for dementia patients, etc. There is a skilled nursing component which covers care for tube feedings, wound care, managing medications and trach/vent care
- ▶ **Home Infusion Therapy:** pharmacists to over see the medical care, the delivery of supplies and medications, and staff to provide the IV coverage. Nurses can help a patient or caregiver administer the drug, educate on side effects and goals of therapy, and visit periodically to assess the infusion site and provide dressing changes.
- ▶ **Hospice:** provides care to patients in their own home or a home-like setting regardless of the patient's age
- ▶ **Hospital at Home:** A relatively new concept that allows hospital-level care to acutely ill older adults that enhances patient satisfaction while reducing healthcare costs (cost savings are between 19% to 30% from traditional hospital admissions).
- ▶ **Medical Home/Primary Care Collaborative:** Team-based care that promotes physician interaction with patients while recognizing common needs for a larger population within their community.
- ▶ **Palliative Care:** specialized medical care for people living with a serious illness but combines a curative treatment approach.

Hospital at Home

- ▶ Of 34 studies comparing costs of hospital at home vs hospitalization, 32 found cost was less with a risk-adjusted cost reduction of 19%
- ▶ Case control studies showed decreased ED visits, readmissions, SNF admissions in the 30-day post acute period
- ▶ CMS waiver program is producing data to determine reimbursement options

Addressing Need

- ▶ Looking for alternative settings for an aging and expanding clinically complex population AND for younger patients as well.
- ▶ Three Considerations:
 - **Hospital at Home** licensure has been in the US for over 25 years, but COVID-19 directed CMS to encourage specific programs. This service provides an inpatient level of care in the home for chronically ill or those with clinically complex issues.
 - While the immediate focus was on a PHE waiver to increase participants, the goal is to expand H@H data gathering ostensibly for future programming.
 - **Patient-centered medical home (PCMH)** is a provider-based model for care coordination that can be implemented within a primary care practice
 - Community Care of North Carolina has the largest medical home system in the US, a program that connects health care providers in identifying patients likely to benefit from the program. Hospital admissions reduced by 27% and readmissions reduced by 59% in 2016.
 - **Aging in Place** is defined as the ability to remain in one's home safely, independently, with community support services

Saint Barnabas Medical Center

- ▶ Post-COVID Comprehensive Assessment, Recovery and Evaluation (CARE) program to care for PASC patients
 - In 7 months, CARE treated 120 patients
 - Each patient received an individualized care plan based on health issue imparities and quality of life factors
- ▶ CARE program
 - Physicians and services from 17 specialties: behavioral health, cardiology, dentistry, dermatology, infectious diseases, pulmonology, neurology, radiology, respiratory therapy


Hospital Role

- ▶ Plan on education: providers, staff, other health care entities, public
- ▶ COVID-19 disproportionately impacts nursing home populations =
 - Older adults and those with underlying chronic conditions
 - Some LTC/SNF had high mortality rates
 - May be ethnic/racial disparities
- ▶ Begin with Nurse Navigators/Social Workers/Care Management
 - Return to Hospital potential
 - Social isolation factors


Documentation

- Effective October 1, 2021 a new ICD-10-CM code: U09.9, Post COVID-19 condition unspecified, for reporting patients with this diagnosis.
- S/S of COVID-19, post-COVID impact
- Testing for infection (when done, results received)
- Lab tests (O2 saturation, PaO2, indicators of inflammation, kidney function, and so forth)
- Respiratory – RT, patient positioning, oxygen therapy, devices to assist respiration
- Medications – treating COVID-19 complications AND fatigue, etc.
- PT/OT/ST involvement
- Physician visits and telemedicine consultations by specialty
- 24-hour NURSING documentation (specifically to severity)


Resource Slides


 **Long-Haul COVID: New Study**

Long-Haul COVID:

 When patients experience one or more symptoms thought to be associated with COVID more than four weeks after first being diagnosed with COVID-19

A study analyzing the health insurance records of nearly two million COVID-19 patients found:

 **23%** of COVID-19 patients had long-haul COVID

19% of asymptomatic patients had long-haul COVID 

The five most common post-COVID conditions across all ages:

- Pain
- Breathing Difficulties
- Hyperlipidemia
- Malaise and Fatigue
- Hypertension

Source: A Detailed Study of Patients with Long-Haul COVID: An Analysis of Private Healthcare Claims. A FAIR Health White Paper, June 15, 2021

HHS and DOJ Guidance

- ▶ The U.S. Department of Health and Human Services and the Department of Justice jointly published a guidance document on “long COVID” as a disability under the Americans with Disabilities Act (ADA), Section 504 of the Rehabilitation Act, and Section 1557 of the Affordable Care Act.
- ▶ <https://www.hhs.gov/civil-rights/for-providers/civil-rights-covid19/guidance-long-covid-disability/index.html>

AAPM&R

- ▶ The American Academy of Physical Medicine and Rehabilitation has a dashboard of those experiencing “long COVID”
- ▶ PASC Model Assumptions and Sources
 1. Model assumes up to 30% of COVID-19 surviving cases in the U.S. result in PASC. Source: JAMA Network Open Source.
 2. COVID-19 surviving cases are confirmed cases less deaths.
 3. U.S. case data is pulled nightly from Johns Hopkins University CSSE COVID-19 data.
 4. U.S. census data uses 2019 1-year estimates.

<https://pascdashboard.aapmr.org/>

SUMMARY | **BY STATE**

FILTERS

(reset to default)

Select Est. PASC %

30%

Select a State

All

Select a County

All

MODEL ASSUMPTIONS AND SOURCES

[\(see all\)](#)

1. Model assumes 30% of COVID-19 surviving cases in the U.S. result in PASC.
2. COVID-19 surviving cases are confirmed cases less deaths.
3. U.S. case data is pulled nightly from JHU CSSE COVID-19 Data. U.S. Census data uses 2019 1-year estimates.

COVID-19 SURVIVING CASES (TOTAL)

75,608,603

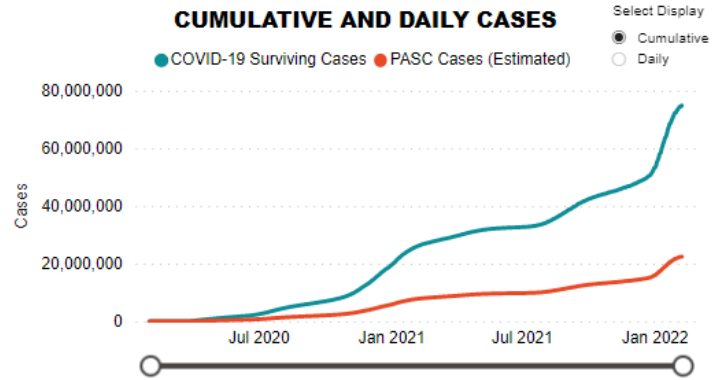
PASC CASES (ESTIMATED)

22,682,581

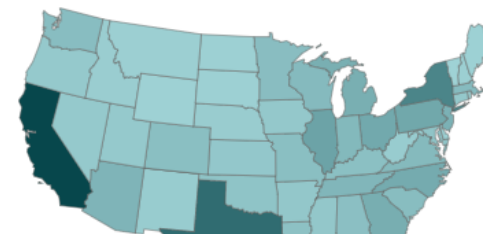
ESTIMATED PASC CASES PER STATE

State	PASC Cases (Estimated)
California	2,561,201
Texas	1,879,640
Florida	1,675,796
New York	1,435,976
Illinois	877,811
Pennsylvania	797,549
Ohio	772,774
North Carolina	734,313
Georgia	684,778
Michigan	665,903
New Jersey	628,675
Arizona	567,418
Tennessee	529,270
Indiana	487,813

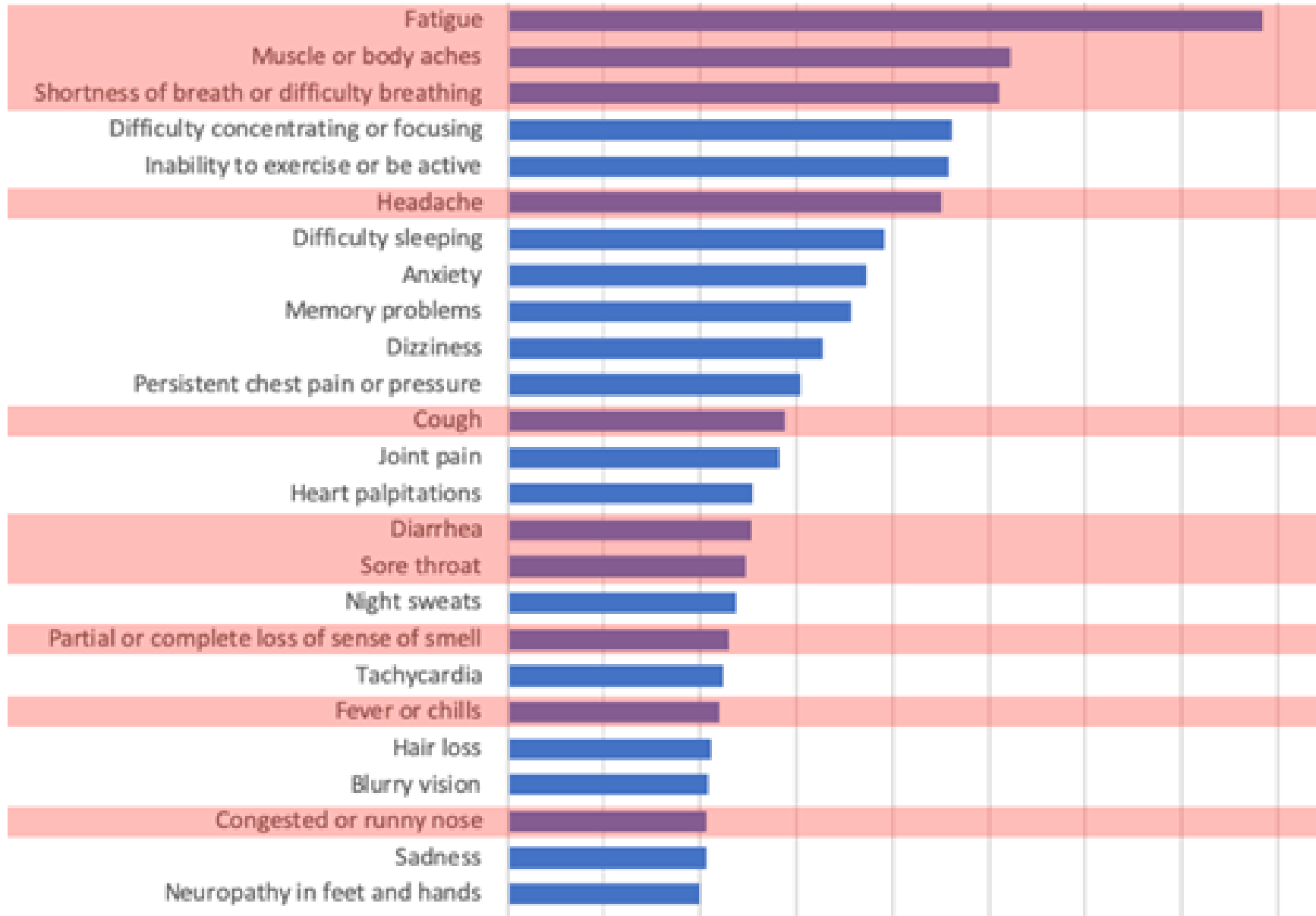
CUMULATIVE AND DAILY CASES



PASC CASES (ESTIMATED)

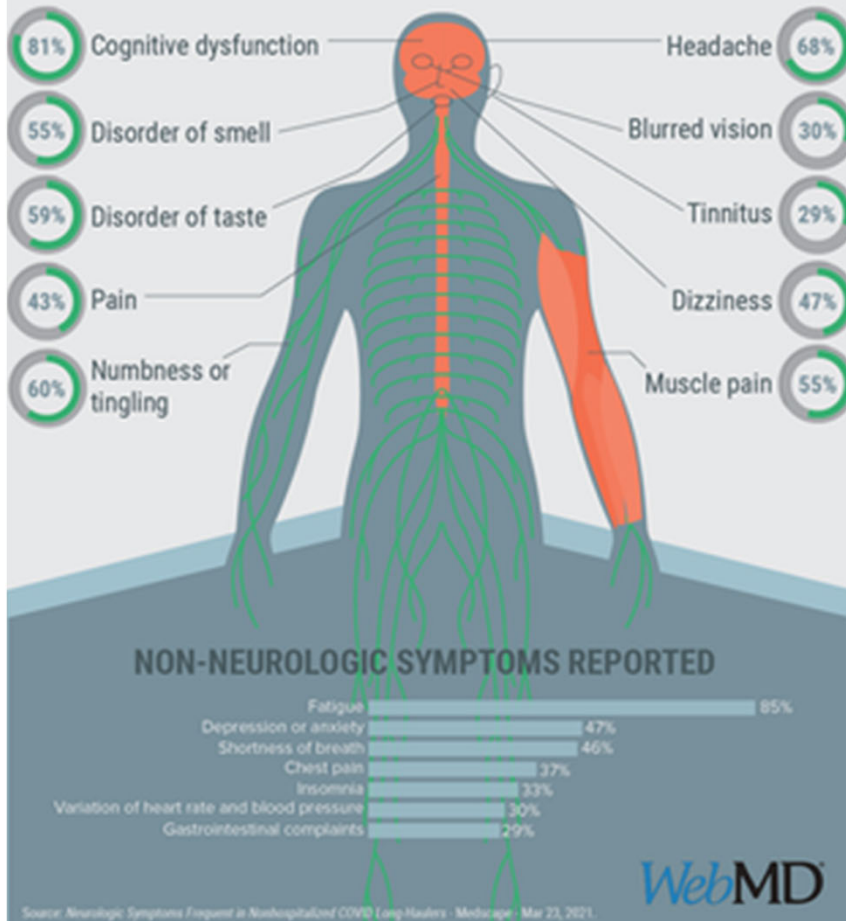


CDC (shaded) vs. Long Hauler Reported COVID-19 Symptoms



<https://medicine.iu.edu/faculty-labs/lambert>

Frequent Neurologic Symptoms in Nonhospitalized COVID Long-Haulers



- ▣ 108 patients in Mayo's post-COVID care clinic
- ▣ 75% in the study with post COVID were women
- ▣ Women have more “enhanced” immune response
- ▣ More likely to have mild cases
- ▣ Immune response then stays heightened

<https://newsnetwork.mayoclinic.org/discussion/hope-for-patients-with-post-covid-syndrome/#:~:text=%22Long%2Dhaul%20COVID%2C%22,haul%20COVID%2C%22%20says%20Dr.>

Questions?

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