

Racial & Ethnic Differences in Long COVID

Research summary published
May 2023

This research at a glance

Main Question

Are Black and Hispanic adults more likely to have certain Long COVID symptoms and health problems compared to White adults?

Answer

Yes, Black and Hispanic adults were more likely to have certain symptoms and health problems related to Long COVID compared to White adults. Black and Hispanic adults were more likely to have diabetes, headaches, joint pain, and chest pain than White adults.

The reason for these differences is unclear. This was one of the first research studies to look at differences in Long COVID based on race and ethnicity.



An Initiative Funded by the National Institutes of Health

Contents

Why was this research needed? _____	Page 2
What happened during this research? _____	Page 3
What were the main results? _____	Page 3
How has this research helped? _____	Page 5
Where can I learn more about this research? _____	Page 5
About RECOVER _____	Page 5



Why was this research needed?

Researchers want to learn if Black and Hispanic adults are more likely to have Long COVID compared to White adults. Past research has found that Black and Hispanic adults are more likely to be hospitalized or die of COVID compared to White adults. But, not much is known about racial and ethnic differences in Long COVID.

Long COVID is a condition in which a person is sick many months after getting COVID. It can cause many new, ongoing, or returning symptoms and health problems.

The goal of this research was to answer this question:

- Are Black and Hispanic adults more likely to have certain Long COVID symptoms and health problems compared to White adults?



What happened during this research?

Researchers used data from electronic health records from the INSIGHT network, which includes 5 health care systems in New York City. Electronic health records are digital (computer-based) versions of patients' medical records. Researchers compared people who had a COVID diagnosis based on:

- Race or ethnicity
- Whether or not they were hospitalized due to COVID
- Whether they had any symptoms or health problems related to Long COVID in the 1 to 6 months after having COVID

Whose data was included in this research?

Researchers looked at data from over 60,000 adults who:

- Reported their race or ethnicity as Black, Hispanic, or White
- Had been diagnosed with COVID between March 1, 2020, and October 31, 2021
- Had at least 1 health care visit within 6 months after their COVID diagnosis

This included:



29,331

White Adults



12,638

Black Adults



20,370

Hispanic Adults



What were the main results?

Black and Hispanic adults were more likely to have certain Long COVID symptoms and health problems compared to White adults. The symptoms and problems differed based on whether adults were hospitalized due to COVID.

Black adults were more likely to have these Long COVID symptoms and health problems

Symptoms and health problems	Compared to hospitalized White adults	Compared to non-hospitalized White adults
Diabetes	✓	✓
Chest pain	✓	✓
Headaches	✓	
Joint pain	✓	✓
Malnutrition		✓
Blood clot in the lungs		✓
Low levels of red blood cells (anemia)		✓

Hispanic adults were more likely to have these Long COVID symptoms and health problems

Symptoms and health problems	Compared to hospitalized White adults	Compared to non-hospitalized White adults
Diabetes		✓
Chest pain	✓	✓
Headaches	✓	✓
Joint pain	✓	
Trouble breathing	✓	
Loss of memory and thinking abilities (dementia)		✓
Low levels of red blood cells (anemia)		✓



How has this research helped?

This was one of the first research studies to look at differences in Long COVID symptoms and health problems based on race and ethnicity. But the reason for these differences is unclear.

More research is needed to understand why these differences exist.



Where can I learn more about this research?

Read the full paper published in the *Journal of General Internal Medicine* in April 2023 at:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9933823/>

Full paper title:

Racial/Ethnic Disparities in Post-acute Sequelae of SARS-CoV-2 Infection in New York: an EHR-Based Cohort Study from the RECOVER Program

Authors:

Dhruv Khullar, Yongkang Zhang, Chengxi Zang, Zhenxing Xu, Fei Wang, Mark G. Weiner, Thomas W. Carton, Russell L. Rothman, Jason P. Block, and Rainu Kaushal

About RECOVER

RECOVER is a research project that aims to learn about the long-term health effects of COVID. We're hopeful that this project will help us better prevent and treat Long COVID in the future. RECOVER is paid for by the National Institutes of Health (NIH).

Learn more at: RECOVERcovid.org