

# Associations of HIV with Manifestations of Long COVID in a Medicaid Managed Care Population

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## BACKGROUND:

Symptoms of COVID-19 can persist long after the infection, regardless of disease severity. Given the overlap between social determinants of health and COVID-19 risk, we need to understand how long COVID affects communities of color and those with low socioeconomic status (SES).

## OBJECTIVE:

The primary aim of this study was to identify the prevalence of long-COVID among Medicaid recipients.

## METHODS:

We conducted an online survey of 153 Medicaid-managed plan members of people living with or at-risk for HIV in New York City who were diagnosed with COVID-19. Long COVID symptoms were assessed with a modified checklist (Tran et al., 2022). Recruitment was through text messages and mailed flyers. Participants received a \$20 e-gift card as compensation. The study was approved by the City University of New York IRB.

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The number of long-COVID symptoms was significantly associated with inadequate incomes but NOT associated with HIV serostatus or race/ethnicity in this Medicaid population.



Table 1 Multiple Regression Analysis on Number of Long-COVID Symptoms at Six-Months

	r	B	SE	β
Non-Hispanic Black	-.116	-2.262	1.667	-.144
Hispanic	.045	-1.992	1.705	-.125
Inadequate Income	.286***	2.946	1.252	.176
HIV+	-.084	-0.603	1.441	-.032
Stroke/Cardiac	.383***	7.386	2.218	.267
Cancer	.254***	5.478	2.078	.198
Depression/Anxiety	.213**	1.888	1.170	.121
Fibromyalgia	.240**	7.409	3.546	.159
Bone/Joint Problem	.267***	1.952	1.596	.101
Use Tobacco	.239**	2.429	1.355	.140

Note. N=138. Total R<sup>2</sup> = .341. \* p < .05, \*\* p < .01, \*\*\* p < .001

## KEY FINDINGS:

Participants' mean age was 45.4 years (SD=11.9) and most were Black or Latinx (43.7% and 39.4%, respectively), while 31.7% had inadequate incomes and 77.5% were HIV-positive. Long COVID symptoms of 6 months or more were reported by 45.8% (M=4.8, SD=7.8). The most frequent symptoms were fatigue (19%), muscle aches/bone or joint pain (19.7%), brain fog (20.4%) and neck/back pain (21.8%). Multiple regression analysis found the number of long COVID symptoms lasting 6 months or more was significantly associated with inadequate incomes and comorbidities (cardiac problems, cancer, fibromyalgia) Race/ethnicity and HIV serostatus were not associated with long COVID; the small size of the comparator groups for these variables is a limitation.

## CONCLUSIONS:

People with low SES and health comorbidities are more likely to experience long COVID. Providers serving patients with a history of COVID should screen for long COVID symptoms and offer treatment as available.