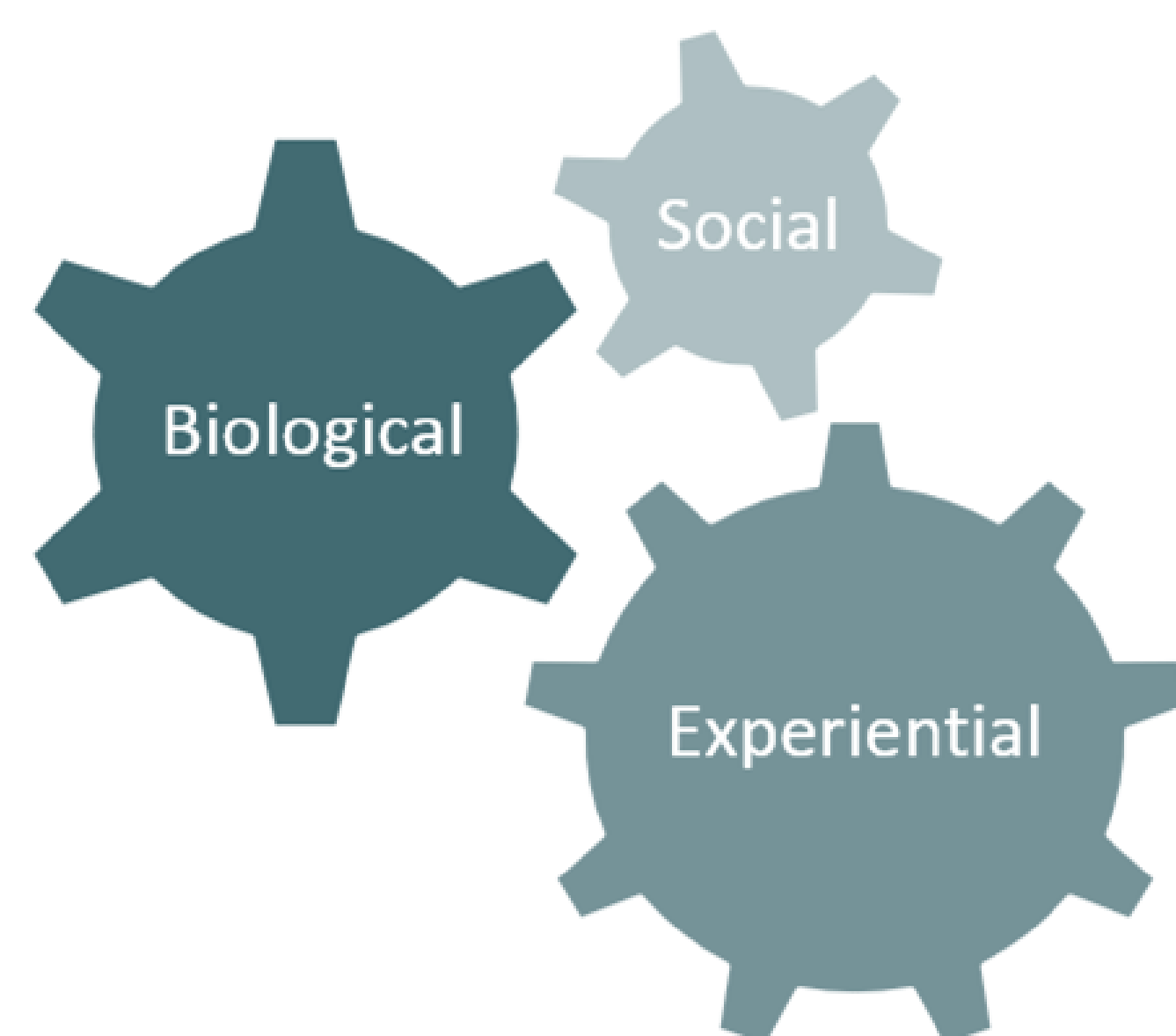


Factors Associated with COVID-19 Symptoms Lasting Longer than Three Months (Long COVID): Evidence from the Household Pulse Survey

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Motivation

- Persistence of COVID-19 symptoms (long COVID) after the acute phase impacts many people and potentially has large economic costs.
- Prior research focuses on the pathogenesis and clinical risk factors associated with the disease; however, recent commentary suggests incorporating social and experiential factors to improve targeting.



Research Objective

Examine the association between long COVID and social and experiential factors

Methods

We used logistic regression to examine relationships associated with long COVID, controlling for state-level heterogeneity.

Household Pulse Survey

- High-frequency, nationally-representative data of household residing adults
- 8 Pooled Waves (Sept. 2022 – April 2023) (N =)
- Covariates:** Gender, Age, Insurance Coverage, Race/Ethnicity, Education, Income, and Vaccination Status

Long COVID (Aligned with WHO)

Whether a respondent indicated they had any symptoms lasting 3 months or longer that they did not have prior to having COVID-19

Social and Experiential Factors

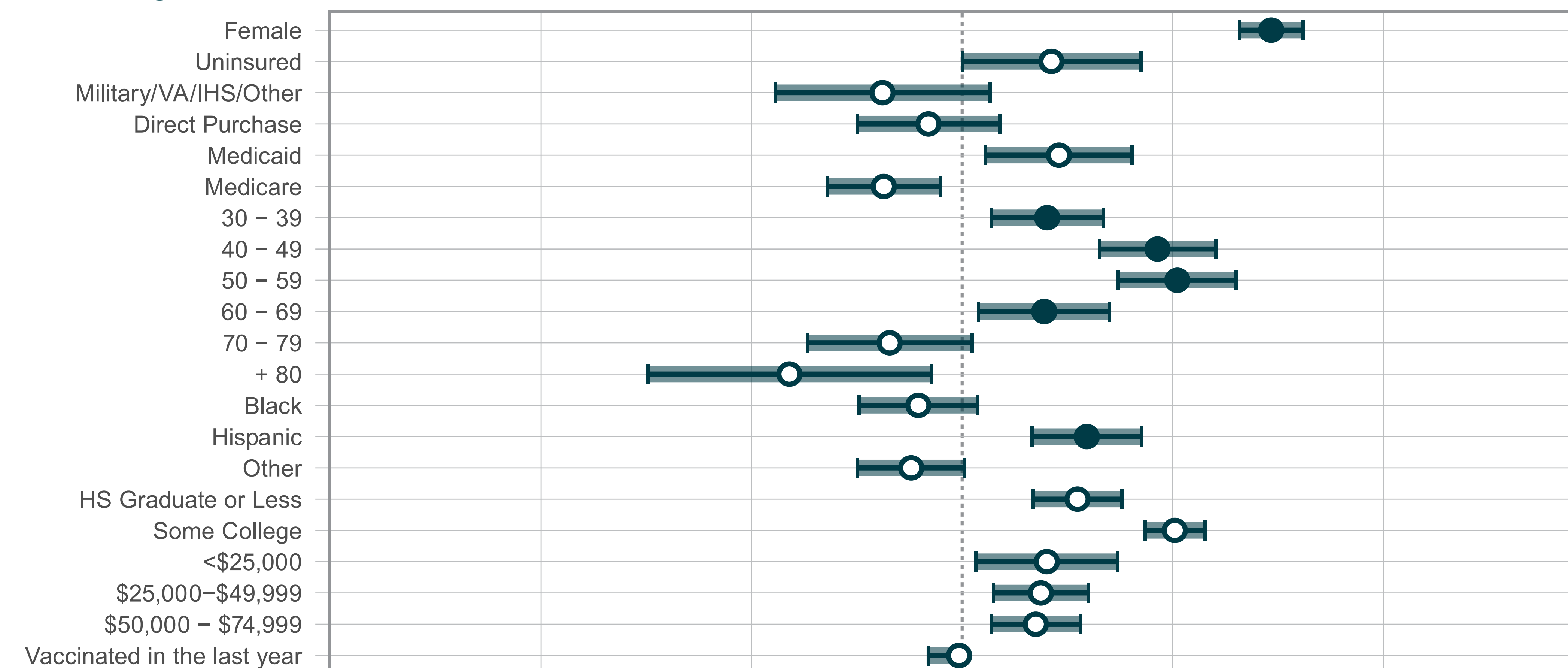
Mental Health: Depression; Disinterest; Worried; Anxious

Financial: Rental Assistance; WIC; Other Food Support; Unemployment Insurance; Other, Governmental Assistance; Non-Governmental Assistance

Disability: Seeing; Hearing; Remembering; Mobility; Self-care; Understanding

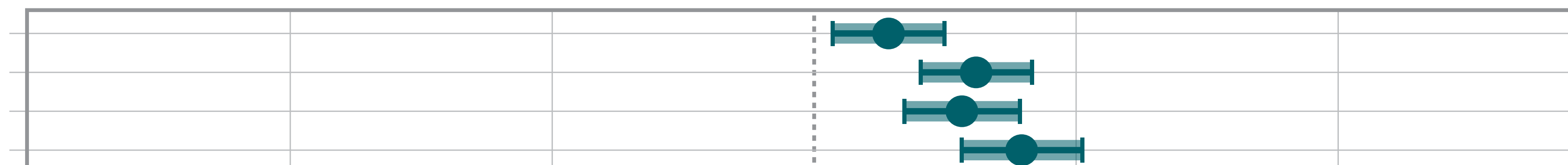
Results

Demographics



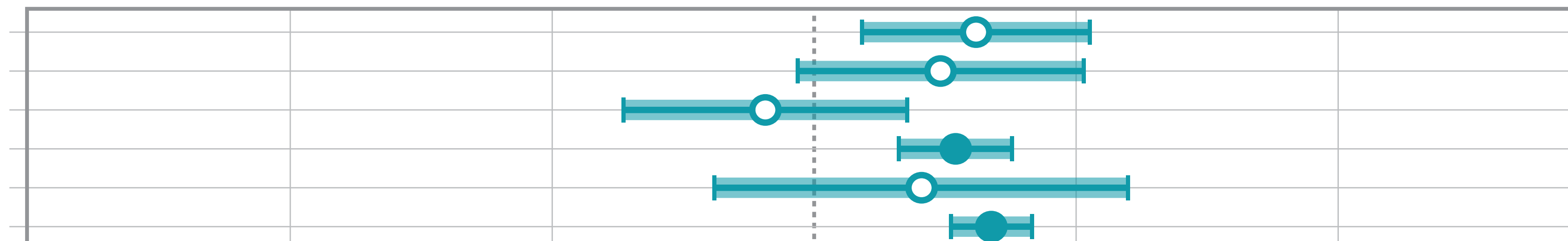
Mental Health

Down
Disinterested
Worried
Anxious



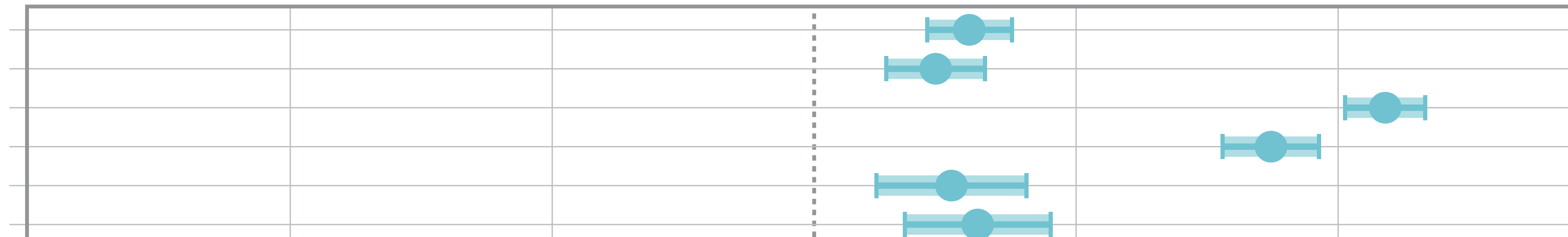
Financial

Other Assistance
Rental Assistance
WIC
Food Support
Unemployment Insurance
Non-Governmental Assistance



Disability

Trouble Seeing
Trouble Hearing
Trouble Remembering
Trouble with Mobility
Trouble with Selfcare
Trouble Understanding



Principal Findings

- 30% of the those who get COVID-19 have long COVID (15% of the total population – 36M people).
- Being female or Hispanic are positively associated with long COVID relative to men and non-Hispanic White individuals.
- Age has a non-linear relationship. Being between age 30-69 has a positive association with long COVID, while over age 70 has a negative association relative to those age 18-29.
- Mental health, disability, and receiving financial assistance are all positively associated with the persistence of COVID symptoms.

This research highlights the complex relationship between long COVID and social/experiential factors.

Policy Implications

Although future research is needed, this analysis suggests that understanding the mechanisms leading to long COVID may require more than just a biological outlook. The following should be considered in the near term:

- Data collection of social risk factors
- Consideration around the inclusion of these factors in risk adjustment to insurers or providers

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