

New study highlights significant health impacts three years after COVID-19 infection

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Amid the complete blackout by governments and public health officials on the true state of the ongoing COVID-19 pandemic, a study just published in the journal *Nature Medicine* by Dr. Ziyad Al-Aly and colleagues reaffirms in the negative the detriments to our health posed by allowing SARS-CoV-2 to infect and reinfect populations under the stated policy of “forever COVID.”

One of the most pernicious lies about COVID-19 is that mild or asymptomatic infections cause no damage to the body and are therefore of little concern. Following up on their prior groundbreaking studies, Al-Aly and colleagues address this fallacy head-on and, in distinction to the laissez-faire attitude of the Centers for Disease Control and Prevention (CDC) and the Biden administration, make a cogent warning on the significant long-term damage COVID-19 can wreak on the body.

Regardless of how mild the acute course of the disease may be, the sustained impact to numerous organ systems may greatly impede our long-term well-being. The studies led by Al-Aly force the medical sciences to rethink the genesis of chronic diseases and for stewards of public health to accept prevention as a necessary first measure in defending societies from these pathogens.

In attempting to understand the chronicity of post-acute sequelae of COVID-19 (PASC), the authors of the study explained, “Addressing this knowledge gap is important to deepen understanding of the post-acute and long-term health trajectories of people who had SARS-CoV-2 infection and will inform care of people with these conditions.”

As with their prior studies, the authors utilize the expansive databases of the US Department of Veterans Affairs. The participants of the present study included a cohort of 135,161 US veterans (114,864 non-hospitalized (NH) and 20,297 hospitalized (H)) who survived the first 30 days of their COVID-19 infections and were followed for three full years to estimate their risk of death and incident of PASC throughout the follow-up period. The comparison group consisted of more than 5 million users of the VA healthcare system without any evidence of prior SARS-CoV-2 infection.

Results of death and PASC in NH and H participants

With respect to death, NH participants only saw an increased

risk of death in the first year after the acute phase of their infection compared to controls. This amounted to an excess mortality burden of 16.2 per 1,000 persons.

However, H participants continued to see their risk of death climb even into the third year from their initial infection. In the first year, these participants saw an excess mortality burden of 58.85 per 1,000 persons compared to non-infected people. That rate continued climbing with an additional 14.15 excess deaths per 1,000 persons in the second year and then 8.16 excess deaths per 1,000 persons in the third year, for a cumulative rate of over 80 excess deaths per 1,000 persons.

Translating this, H participants with just one prior infection compared to non-infected controls can expect to see 8 percent more die after three years. Given that estimates place the number of people hospitalized from May 2020 to April 2021 at between 3.25 to 3.95 million people, that would lead to a considerable undercounting of COVID deaths.

With respect to PASC (Long COVID), among NH participants the three-year cumulative number reached 378.7 per 1,000 persons. The highest rate occurred in the first year at 212.3, then 125.0 in the second year and 41.2 in the third year. Additionally, the authors found that the cumulative burden of disability-adjusted-life-years (DALYs) due to PASC reached 91.2 per 1,000 persons. Although declining each year, it remained statistically significant and elevated.

By comparison, for H participants, the three-year cumulative number of post-acute sequelae reached 2,392 per 1,000 persons and the burden of DALYs due to PASC had reached 766.2 per 1,000 persons or 8.4 times higher than among NH participants.

DALYs are used by researchers to capture the impact a disease has on people’s lives above and beyond mortality rates. These are time-based measures that combine years of life lost due to premature death (Years of Life Lost—YLL) and years of life lost due to time lived in states of less than full health, or years of healthy life lost due to disability (YLD). Statistically, one DALY represents the loss of the equivalent of one year of full health.

Dr. Al-Aly wrote to the *World Socialist Web Site*,

Risk of new onset sequelae (PASC/Long Covid) declines over time in both non-hospitalized and hospitalized patients. But risk remains in the third year after infection causing 10 DALYs per 1000 persons in non-hospitalized

and 90 DALYs per 1000 persons who were hospitalized during acute COVID.

The organ systems where the risk persists in non-hospitalized include neurologic, gastro-intestinal (GI), and pulmonary. Viruses are known to have long-term neurologic impacts (e.g. Epstein-Barr Virus/Multiple Sclerosis) and the gut may serve as a long-term reservoir for the virus. Cumulatively, at three years, Long Covid contributes 91.2 DALYs per 1000 persons – higher than cancer and heart disease. For context heart disease and cancer cause about 50 DALYs per 1000 persons in the population. Stroke generates about 10 DALYs per 1000 persons.

Mechanisms for Long COVID need to be further elucidated but are thought to include viral persistence, chronic inflammation, immune dysregulation or a combination of these.

When the PASC data were analyzed by organ systems, among NH participants compared to controls without infection, there was an increased risk of organ damage in all 10 “organ systems”—cardiovascular, coagulation, fatigue, gastrointestinal, kidney, mental, metabolic, musculoskeletal, neurologic and pulmonary—in the first year after infection, nine in the second year (all except kidney), and three in the third year that include the three organ systems mentioned above by Dr. Al-Aly.

For H participants, all ten organ systems reviewed were at risk in years one and two, while seven (all except kidney, metabolic, and musculoskeletal) exhibited increased risks in the third year.

When these were further subcategorized by actual disease states [*See figure 2 below from the study*], the real impact of Long COVID on the health of these participants became obviously evident. Using the statistical term incidence rate ratio (IRR) to demonstrate the increased burden of disease, one quickly observes that H participants have significantly higher rates of acute coronary disease. Rates of pulmonary embolism remain elevated for these patients throughout the study period. Risk of acute kidney injury persists. The rates of loss of smell are astronomical. They are also at higher risk of opioid abuse, sleep disorders, and suicidal ideations. These issues, although at lower rates, also impact NH participants.

The authors warned that even though those with severe COVID face the harshest long-term consequences, the absolute burden of Long COVID remains highest among those with mild disease, writing,

According to an analysis by the Global Burden of Disease (GBD) collaborators, about 90 percent of people with PASC had mild COVID-19, suggesting that, although preventing severe disease is important, strategies to reduce the risk of post-acute and long-term health loss in people with mild COVID-19 are also needed.

We are used to thinking about infections as acute events with health effects that manifest around the time of infection. The data shows that Covid can cause health effects even 3 years later. I think this challenges the classic notion of infections causing acute health events. I feel Covid continues to teach us, and this is an important new lesson.

He concluded,

The story in hospitalized people is starker – they have greater risk and longer risk horizon with resultant burden of disease that is astronomically much higher than non-infected people and higher than non-hospitalized individuals. This places emphasis on prevention of hospitalization via vaccination, antivirals, etc. Hospitalization can have huge and wide-ranging effects on people’s lives for years if not more. Preventing hospitalization is very important.

But as Al-Aly had noted in a January 2024 Congressional hearing on Long COVID, “The best way to prevent Long COVID is to prevent COVID in the first place. There is no Long COVID without COVID.”

The results of this latest study reaffirm the need to prevent the ongoing transmission of SARS-CoV-2 globally and underscore the malign neglect that has punctuated the response by the capitalist ruling elites to the ongoing COVID-19 pandemic. The powers-that-be have inflicted this “mass disabling event” on the world’s population, with potential health ramifications for every life on this planet.



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Al-Aly wrote to the WSWWS: