

Study shows cost of hospital care for COVID-19 patients increased during pandemic

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The average cost of providing care to hospitalized COVID-19 patients increased five times faster than the rate of medical inflation during the

first two years of the pandemic, at least partly because of the application of additional medical technologies over the period, according to a new RAND Corporation study.

Examining patients treated at [academic medical centers](#) across the nation, researchers found that the average cost of treatment for COVID-19 infection increased from \$10,094 during the first weeks of the pandemic to \$13,072 during March 2022.

Significant additional costs were associated with patients who had conditions such as obesity or a coagulation deficiency like hemophilia. Those who underwent extracorporeal membrane oxygenation, a breathing support treatment used later in the pandemic to sustain patients, had much [higher costs](#).

The findings are published in the journal *JAMA Network Open*.

"Defining the cost of treating hospitalized people with COVID-19 is important to fully understand the [financial impact](#) of the pandemic and improving public health readiness for future challenges," said Kandice A. Kapinos, the study's lead author and a senior economist at RAND, a nonprofit research organization.

The COVID-19 pandemic placed unprecedented demands on [medical services](#) worldwide, with estimate cases exceeding 660 million. During the first two years of the pandemic in the U.S., 6.2 million Americans were hospitalized for treatment of the infection.

The peak demand for U.S. [hospital](#) services occurred during the omicron variant surge from November 2021 to February 2022, when patients with COVID-19 accounted for more than one-fifth of hospital admissions and nearly one-third of intensive care beds.

While the [pandemic](#) caused many cancelled elective surgeries and other financial challenges for hospitals, relatively little research has probed the cost of providing care to the millions of COVID-19 patients treated in U.S. hospitals.

Researchers from RAND and partner institutions examined the cost of providing care to COVID-19 patients by analyzing information from a repository of clinical, administrative and financial details covering 97% of the nation's academic medical centers—more than 800 hospitals in total.

The analysis examined more than 1.3 million inpatient stays from March 2020 through March 2022 and analyzed the costs of providing care to patients, not the amount billed to insurers or the amounts paid. Researchers say these calculations best estimate the strain the illness put on hospitals.

More than 80% of the [hospitalized patients](#) entered through emergency departments, 13% received [mechanical ventilation](#), 27% spent time in the ICU and 13% died. The adjusted cost for caring for COVID-19 patients increased by 26% during the two-year study period, compared to an overall 2% to 5% annual average medical cost inflation.

"The way doctors treated patients evolved as we learned about COVID-19," Kapinos said. "Then once the vaccines became available, the makeup of patients entering hospitals began to change."

Patients with the highest costs were more likely to have extracorporeal membrane oxygenation or mechanical ventilation but were not necessarily those who died.

Extrapolating the study's findings to all of the 6.2 million COVID-19 hospitalizations in the U.S. during the study period, researchers suggest

that the direct cost of caring for COVID-19 patients during the period could have reached \$70 billion.

More information: Kandice A. Kapinos et al, Inpatient Costs of Treating Patients With COVID-19, *JAMA Network Open* (2023). [DOI: 10.1001/jamanetworkopen.2023.50145](https://doi.org/10.1001/jamanetworkopen.2023.50145)

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