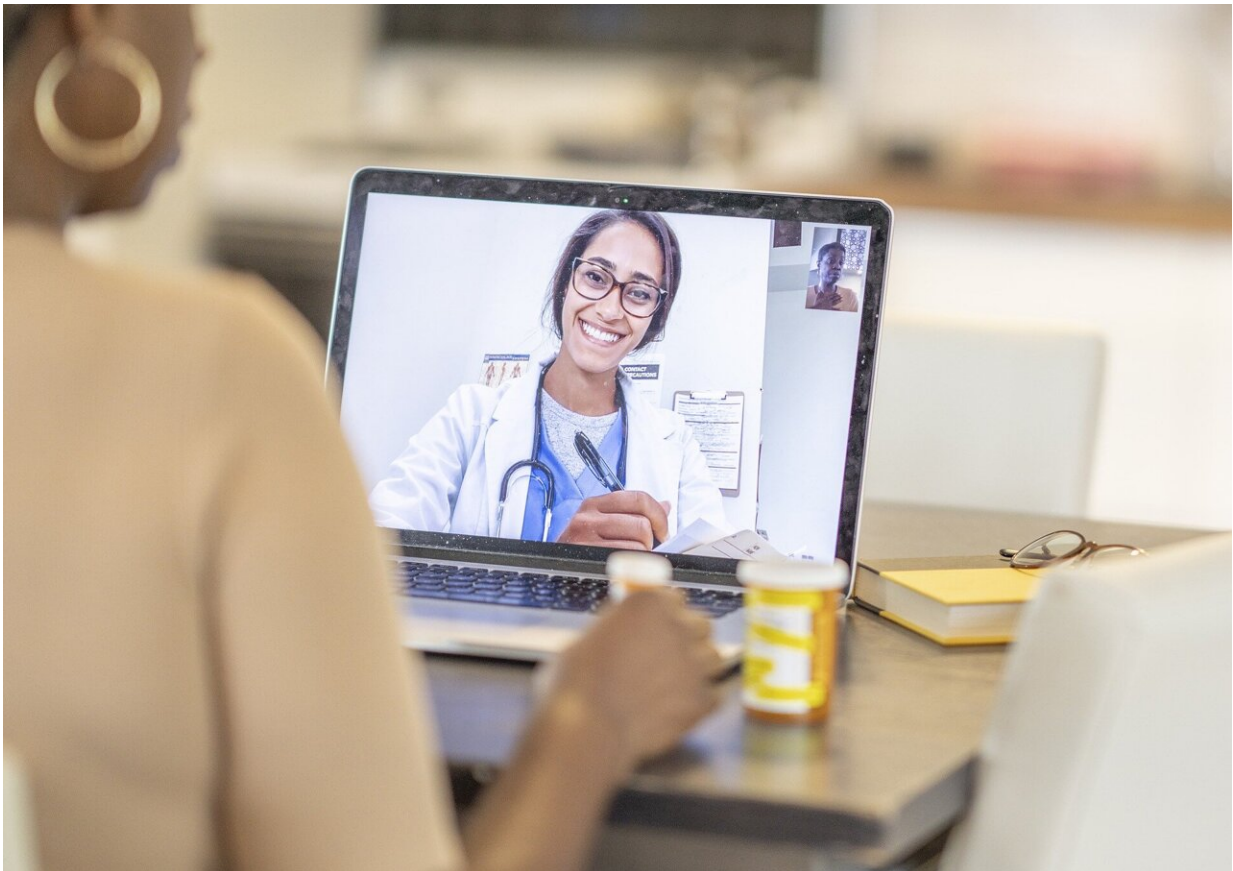


Virtual care associated with significant environmental and patient cost savings

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A new study by researchers at ICES, Lawson Health Research Institute and Western University finds that virtual care during the COVID-19

pandemic led to a significant reduction in carbon dioxide emissions and patient travel-related expenses, such as gasoline, parking or public transit costs.

Prior to the [pandemic](#), less than 2% of patient visits with physicians took place virtually. The beginning of the pandemic (April-June 2020) triggered a rapid transition to virtual visits, which soared to 70 to 80%, and then stabilized at 50 to 60% of all physician visits.

This cross-sectional study published in *JAMA Network Open* used health care administrative data from Ontario, Canada to identify all patients with at least one virtual care visit between March 2020 and December 2021.

"Virtual care has become an important part of the health care system in Ontario, and in addition to improved patient convenience, it results in significant environmental and [financial benefits](#) for patients," says lead author Dr. Blayne Welk, Associate Professor of Surgery at Western, Urologist at St. Joseph's Health Care London, Associate Scientist at Lawson, and Adjunct Scientist at ICES Western. "The financial and environmental benefits of virtual care will likely continue beyond the pandemic and are particularly relevant for some patients who were frequent recipients of virtual care."

Findings show that for more than 10 million patients with at least one appointment during the study period (63 million visits in total), virtual care was associated with estimated savings of:

- 3.2 billion kilometers of patient travel;
- 545 to 658 million kilograms of carbon dioxide (CO₂) emissions; and
- \$569 to \$733 million (Canadian [US \$465–\$599 million]) in expenses for gasoline, parking, or public transit.

The avoidance of [carbon dioxide emissions](#) during the pandemic due to virtual visits represented approximately 0.2% of the total annual carbon dioxide emissions (150 megatons) from Ontario.

The number of virtual care visits was greater for those aged 65 and older, individuals with multiple [health conditions](#), and those living in [urban areas](#). Due to distance traveled, virtual care may offer more potential environmental benefits and patient cost savings for rural residents. Other factors, such as decreased time off work (given that some virtual visits can be done during the day with little interruption to work) may have had additional benefits for some working adults and parents of young children.

"Virtual visits should not replace all in-person visits, but they are an important option that can enhance the care that physicians provide for patients," says Dr. Alexandra Zorzi, a Pediatric Oncologist at Children's Hospital at London Health Sciences Center and Associate Scientist at Lawson. "Our findings suggest that physicians should continue to offer virtual care appointments when appropriate, especially for patients living in more [remote areas](#) and those that have barriers to accessing in-person health care."

The study, "Association of virtual care expansion with [environmental sustainability](#) and reduced patient costs during the COVID-19 pandemic in Ontario, Canada," was published in *JAMA Network Open*.

More information: Association of Virtual Care Expansion With Environmental Sustainability and Reduced Patient Costs During the COVID-19 Pandemic in Ontario, Canada, *JAMA Network Open* (2022). [DOI: 10.1001/jamanetworkopen.2022.37545](https://doi.org/10.1001/jamanetworkopen.2022.37545)

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