

No surge in travel during regional lockdowns, study finds

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COVID-19 highway sign in Toronto, March 2020. Credit: EelamStyleZ

Regional lockdowns used to reduce the spread of COVID-19 did not

result in spikes of people venturing to areas with fewer restrictions to shop, eat, or buy services, a new study has found.

Regional lockdowns have been used worldwide to curb the spread of COVID-19 infections. In Ontario, the effectiveness of such lockdowns were questioned early into the pandemic out of concerns people would travel to areas with fewer restrictions to access shopping and services. That does not appear to be the case, says Athabasca University (AU) researcher Dr. Gina Martin.

"Overall, movement does not change from regions targeted by lockdowns to other areas," says Martin, an assistant professor in the Faculty of Health Disciplines and study co-author.

This is important, she says, because the effectiveness of regional health restrictions depend, at least in part, on people following the rules.

"Our findings will help government and public health agencies to inform future intervention strategies."

Cellphone data shows no changes in movement

The study, led by Western University's Dr. Jed Long, used de-identified and aggregated network mobility data from TELUS to determine how regional lockdowns affected inter-regional movement in Ontario. The research team analyzed mobility data from two different periods, July 2020 and November 2020, when restrictions varied between public health regions.

"Based on media reporting and anecdotal evidence, we hypothesized we might see increased inter-regional movement as a result of these regionally targeted lockdowns," explained Long. "The data did not support this hypothesis."

The network mobility data was provided by TELUS through the company's Insights Analytics platform, which is de-identified and aggregated, meaning the no personal information is included in the data.

"How it works is that, as people move, their phones ping different cellphone towers," explained Martin. This helps researchers understand where people travel and also identify broader [movement](#) patterns, she said.

"This technology is used quite a bit in spatial epidemiology to understand how diseases are spreading."

Findings helpful for government, policy makers

The study found that targeted lockdowns had a neutral effect on mobility from region to region despite differences in restrictions. Martin called this a good outcome, one that could help governments and public [health](#) officials design future regionally targeted lockdowns.

"The findings do not show that people are moving en masse to a different [region](#), so it negates that as a concern."

The study was published in September in the peer-reviewed journal *Health & Place*.

More information: Jed A. Long et al, Do regionally targeted lockdowns alter movement to non-lockdown regions? Evidence from Ontario, Canada, *Health & Place* (2021). [DOI: 10.1016/j.healthplace.2021.102668](https://doi.org/10.1016/j.healthplace.2021.102668)

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