

# **Mask mandates shown to significantly reduce spread of COVID-19**

October 7 2020

---



Credit: Pixabay/CC0 Public Domain

A new study by Simon Fraser University (SFU) researchers has found clear evidence that wearing a mask can have a significant impact on the spread of COVID-19. The researchers, from SFU's Department of Economics, have determined that mask mandates are associated with a 25 per cent or larger weekly reduction in COVID-19 cases.

The finding of their study, still in preprint and not yet peer-reviewed, conclude that mandating indoor [masks](#) nationwide in early July could have reduced the weekly number of new cases in Canada by 25 to 40 per cent in mid-August, which translates into 700 to 1,100 fewer cases per week.

The study analyzed the impact of mask mandates that were implemented across Ontario's 34 Public Health Units (PHUs) over the course of two months.

Researchers compared the results of PHUs that adopted mask mandates earlier to those that adopted mandates later. They determined that, in the first few weeks after their introduction, mask mandates were associated with an average weekly reduction of 25 to 31 per cent in newly diagnosed COVID-19 cases, relative to the trend in mask mandate absence, in July and August.

A further Canada-wide analysis with province-level data found a significantly negative association between mask mandates and subsequent COVID-19 case growth—up to a 46 percent average reduction in weekly cases in the first several weeks after adoption.

These results were supported by additional survey data that showed mask mandates increase self-reported mask usage in Canada by 30 percentage points, suggesting that the policy has a significant impact on behavior.

Jointly, these results suggest that mandating indoor mask wear in public places is a powerful policy measure to slow the spread of COVID-19, with little associated economic disruption in the short term.

The study also found that relaxed restrictions on businesses and gatherings (including retail, restaurants and bars) were positively associated with subsequent COVID-19 case growth—a factor that could offset and obscure the health benefits of mask mandates.

The most stringent restrictions on businesses and gatherings observed in the data were associated with a weekly decrease of 48 to 57 per cent in new cases, relative to the trend in the absence of restrictions.

The study authors note that while the results are significant, their sample period does not allow them to definitively say whether the effect of mask mandates persists or weakens beyond the first few weeks after implementation. However, they conclude that, combined with other policy measures, mask mandates can be a potent policy tool for slowing the spread of COVID-19.

## **Key Finding:**

- Mask mandates are associated with a 25 to 46 per cent average reduction in weekly COVID-19 cases across Canada.
- Requiring indoor masks nationwide in early July could have reduced new COVID-19 cases in Canada by 25 to 40 per cent in mid-August, which translates into 700 to 1,100 fewer cases per week.
- Mask mandates were shown to increase self-reported mask usage

in Canada by 30 percentage points.

- The most stringent restrictions on businesses and gatherings (including retail, restaurants and bars) were associated with a weekly decrease of 48 to 57 per cent in new cases, relative to the trend in the absence of restrictions.

**More information:** Alexander Karaivanov et al, Face Masks, Public Policies and Slowing the Spread of COVID-19: Evidence from Canada, (2020). [DOI: 10.1101/2020.09.24.20201178](https://doi.org/10.1101/2020.09.24.20201178)

Provided by Simon Fraser University

Citation: Mask mandates shown to significantly reduce spread of COVID-19 (2020, October 7) retrieved 23 April 2024 from <https://medicalxpress.com/news/2020-10-mask-mandates-shown-significantly-covid-.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.