

News Release

McMaster HealthLabs Releases Interim Report on COVID-19 Study of Arriving International Travellers

Preliminary findings provide important data for policy makers

Toronto – November 17, 2020 – McMaster Health Labs (MHL) has released its *Canadian International COVID-19 Surveillance Border Study* interim report, which was conducted with support from the Government of Canada and in partnership with Air Canada and the Greater Toronto Airports Authority (GTAA). Independent analysis of the Border Study’s interim results has been conducted by the study team; additional analysis and full results are expected to be shared in January 2021.

The MHL study was established to gather data on COVID-19 infection rates of incoming international travellers, to help determine if an airport-based surveillance program is feasible, to determine whether self-collection of COVID-19 testing is effective, and to explore options regarding the 14-day quarantine for international travellers.

The study is the largest of its kind in the world. Most other border testing studies have used a “test and release” approach. The MHL study is unique in collecting COVID-19 test data from individuals at three different time points: upon arrival and at days seven and fourteen, which provides a comprehensive data set for policy makers.

The study was conducted between September 3 and November 14, 2020. It is anticipated that the final report will be based on more than 16,000 participants completing more than 40,000 tests.

Interim results are based on more than 20,000 tests conducted on more than 8,600 study participants recruited from September 3 to October 2, 2020.

The interim results indicate:

- 99% of study participants tested negative for COVID-19 with 1% testing positive
- Of the 1% testing positive for COVID 19:
 - 0.7% detected on arrival
 - 0.3% detected on day 7
 - <0.1% detected on day 14
- The pilot phase has demonstrated the feasibility of airport-based testing with self-collected nasal/oral swabs as well as home-based collection during quarantine

“Interim results from the border study support a test and reduced quarantine approach such as that being piloted in Calgary,” said Dr. Vivek Goel, co-principal investigator of the study, professor at the University of Toronto and a former CEO of Public Health Ontario. “Testing upon arrival with a follow-up test to catch later positive results could provide a reasonable path forward to help keep borders and the economy open while maintaining public safety.”

Experts agree that COVID-19 will be with us for some time and that testing will be a critical part of the strategy needed to keep borders open and to stop restrictive lockdowns to contain the virus – even if a vaccine emerges.

“The border study provides public health officials with critical information to support decision making through the pandemic,” said Dr. Marek Smieja, MHL scientific director, co-principal investigator of the study and a professor of pathology and molecular medicine at McMaster University. “In addition to demonstrating the feasibility of conducting COVID-19 testing at the airport, the study has also shown the effectiveness of a self-collected COVID-19 sample using a cheek and nasal swab that is completed in minutes.”

“These interim results are very encouraging and provide robust data for governments to make science-based policy decisions with respect to safely reopening our country. The updated results strongly suggest that some form of a testing regime can provide a viable alternative to a blanket, 14-day quarantine requirement and also provide a mechanism to reduce travel restrictions more generally,” said Dr. Jim Chung, Air Canada’s Chief Medical Officer.

“The Greater Toronto Airports Authority remains committed to protecting the health and wellbeing of passengers and airport workers, using a science-based approach,” said Deborah Flint, President and CEO. “Today’s announcement by McMaster HealthLabs shows that the current response to COVID-19 can be refined based on scientific findings, including these from the largest COVID-19 study of its kind in the world. We welcome the opportunity to continue collaborating with the Government of Canada, determining the next steps toward a safe, responsible resumption of international travel.”

The Border Study has been conducted in accordance with research ethics board-approved scientific protocols. Consenting participants provided a sample to MHL researchers before leaving the airport and then supplied two additional samples self-collected at seven and fourteen days after arrival, coinciding with Canada’s current quarantine period. Study samples have been analyzed at the Research Institute of St. Joe’s Hamilton using the gold standard PCR testing for COVID-19 detection.

A final report of the Border Study will be available in January 2021 and will include information on infection rates within age groups and across genders, as well as data on the psychological impact of quarantine.

About McMaster HealthLabs

McMaster HealthLabs (MHL) is a non-profit organization that develops COVID-19 research initiatives and testing solutions to keep Canadians safe and to get them back to work. MHL works with a team of scientists and doctors from McMaster University, the Research Institute of St. Joe's Hamilton in Ontario, and other Canadian universities and research organizations. MHL partners with Verto Health, leveraging its innovative digital twin technology solutions in MHL research initiatives. MHL collaborates with Deloitte Canada for strategic and operational advisory support on this study. MHL is focused on curbing the human, economic and social costs of COVID-19 by creating scientific research initiatives that help Canadian leaders make evidence-based decisions. For more information, please visit mcmasterhealthlabs.ca.

Note to editors: French news release is available on mcmasterhealthlabs.ca

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