

#### PREPARED BY:

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# **EXECUTIVE SUMMARY**

Containment of a virus, such as the 2019 Novel Coronavirus (causing the COVID-19 disease), is dependent on controlling transmission of the disease between countries. Travelers are a primary factor in the spread of infectious diseases across borders and have been instrumental in spreading COVID-19 around the world.

Controlling infectious disease transmission requires a better understanding of people's knowledge, activities and practices on infectious diseases and travel, with an emphasis on the COVID-19 outbreak and pandemic. In April 2020 students at the University of the Fraser Valley were sent an email invitation to complete an online survey on travel, health and COVID-19. Ethics approval was received from the Human Research Ethics Board at the University of the Fraser Valley (File No. 100448). The survey was also conducted with students at the University of Manitoba to allow us to determine possible differences in student responses between different types of universities in Canada. These results are being reported separately.

This survey was part of a larger overall study looking at travel and health funded by the Canadian Institutes of Health Research (CIHR) under their rapid response funding opportunity. Although this survey involved the entire student population, the specific focus of the overall study was on newcomer populations travelling to visit friends and relatives in their countries of origin (commonly known as VFR travellers). Other components of the study included focus groups with members of the Chinese and South Asian populations in the Fraser Valley and a survey (with follow-up interviews) with family physicians about their experiences in providing pre-travel advice to VFR travellers. We also conducted follow-up focus groups with volunteers from the University of the Fraser Valley student survey to give use of some important context for their survey responses. The results from these study components are also being reported separately.

# **EXECUTIVE SUMMARY**

Highlights of the survey results reported here are:

### • Travel Health:

- Two-thirds of students who travel had visited another country in the previous 12 months (mostly to the United States, Mexico, India and Europe).
- Most students who travel internationally usually get their information from a medical professional.
- While most did not seek advice from a health professional prior to past travel, they would consider seeking medical advice before their next trip.
- Overall vaccination rates for recommended diseases ranged from 60% (e.g. seasonal influenza) to 75% (measles).

### • COVID-19:

- Students were very aware of COVID-19 symptoms and protective strategies, as known/recommended at the time of the survey.
- Most got their COVID-19 information from the Internet, TV and social media.
- Emails from the University of the Fraser Valley were the most used channel for university related COVID-19 information.

In reading this report, we ask that you remember the survey was conducted at the outset of the pandemic. At that time, we were still learning about the emerging coronavirus transmission mechanisms and disease symptoms. Some of the major preventive measures that became commonplace as the pandemic progressed, such as wearing face masks, were not yet widely recommended. Student responses on COVID-19 attributes and protective measures reflect the knowledge and standard practices at the time they completed the survey in April 2020.

### Tell us what you think

If you have any questions about this document, need further information and/or comments that you want to share please do not hesitate to reach out to the study lead - Dr. Cindy Jardine at the University of the Fraser Valley (cindy.jardine@ufv.ca)

# **CONGRATULATIONS**

to Ellen Christian from the Bachelor of Business program, who won the survey draw for an Apple computer! Ellen was particularly pleased to win as this means she no longer has to borrow her Dad's computer for her online courses.



# **DEMOGRAPHIC PROFILE**

### Who participated?

Of the 1,493 students who responded to our survey, 578 volunteered to be part of follow-up focus groups. Thank you all so much for your participation!

# **Demographic characteristics**

- 86% were domestic students
- 70% identify as female
- 80% full-time students
- 77% were born in Canada
- 5% identify as Indigenous
- 7% work in a health-related field
- Average age was 24 years (with the majority 25 years or younger)



# **DEMOGRAPHIC PROFILE**

While most (86%) of student respondents were Canadian citizens, almost half (48%) reported having a parent born outside of Canada. About 86% of students reported that they usually speak English at home, while 17% usually speak Punjabi, and 11% usually speak another language at home.

86%

were Canadian citizen

48%

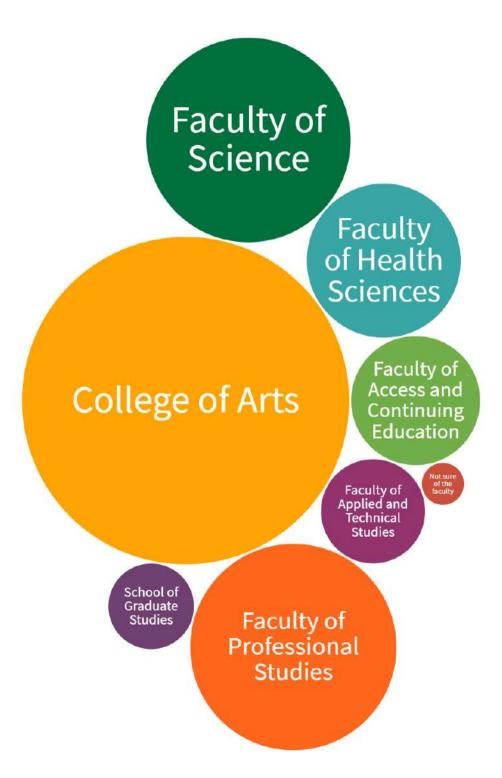
had a parent born outside of Canada

17%

usually speak Punjabi at home



# FACULTIES OF STUDENT RESPONDENTS



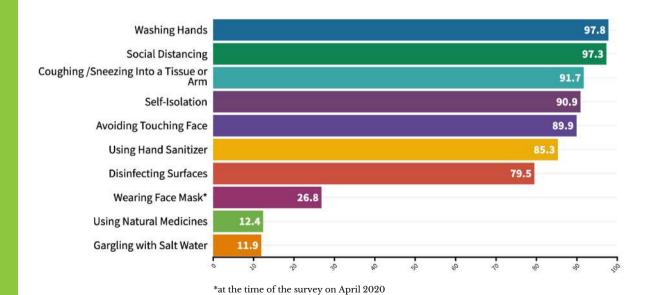
Circles sizes are proportional to the number of respondents





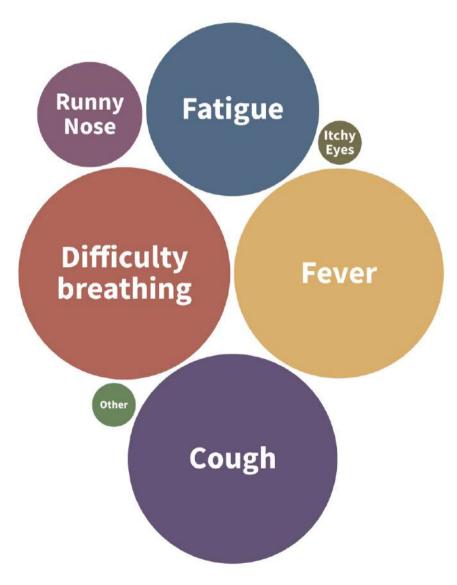
# COVID-19 AWARENESS

Students participants identified the strategies they used to protect themselves against COVID-19, reflecting what was recommended by public health at the time of the survey in April 2020.



# **COVID-19 SYMPTOMS KNOWLEDGE**

About 95% of students identified the top three symptoms of COVID-19 (fever, difficulty breathing, and cough) and about 86% of students reported that they are aware symptoms appear up to 14 days following exposure to the virus. When taking measures to protect themselves from COVID-19, more international students (57%) reported wearing a lightweight disposable face mask to protect themselves compared to domestic students\* (22%).



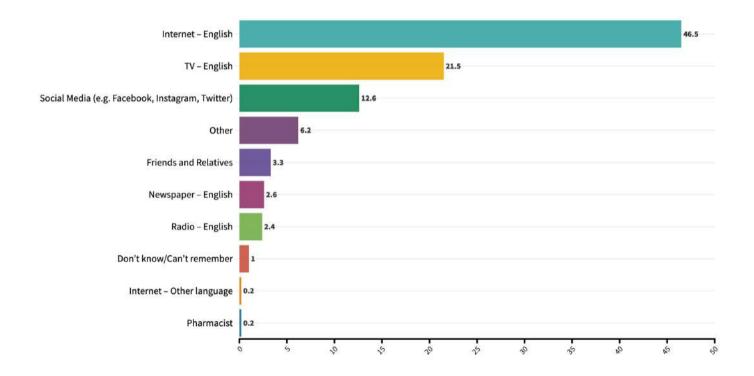
\*at the time of the survey on April 2020  $\,$ 

Circles sizes are proportional to the number of respondents





# COVID-19 <a href="INFORMATION SOURCES">INFORMATION SOURCES</a>



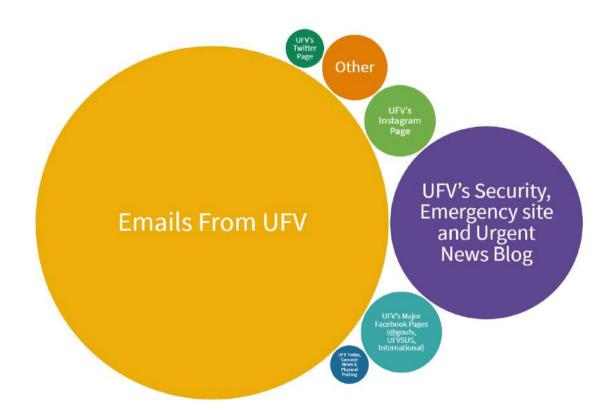
This information was only collected from students who indicated they had travelled internationally in their lifetime and indicates general health information sources. In contrast to this information (showing 42% students got their health information from the physicians or health centres), 47% of students who travelled internationally reported getting their COVID-19 information from the internet.

4796
students who travelled internationally reported getting their information from the internet



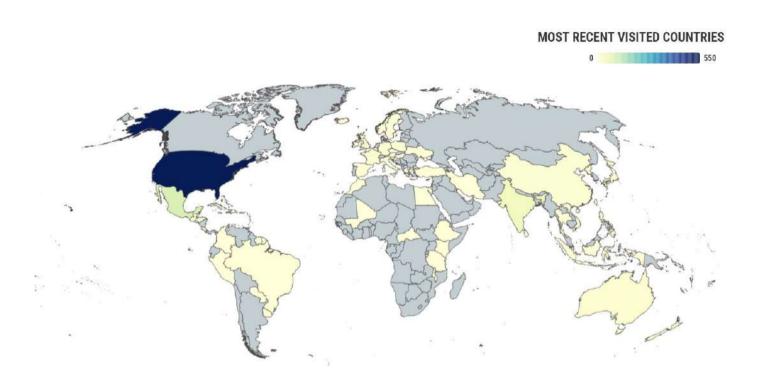
### **UFV Channels for COVID-19 information**

When receiving information on COVID-19 from UFV, students reported emails from UFV (including UFV faculty and/or department emails) were the most used information channel (76%). For information gathered from UFV channels, over 80% of students agreed or strongly agreed that the information was timely, they could understand it, and that the information was useful in helping them understand what they needed to do to protect themselves from getting COVID-19. Furthermore, 76% agreed or strongly agreed that it was easy for them to take action on what they needed to do about changes to their courses in the Winter 2020 term.



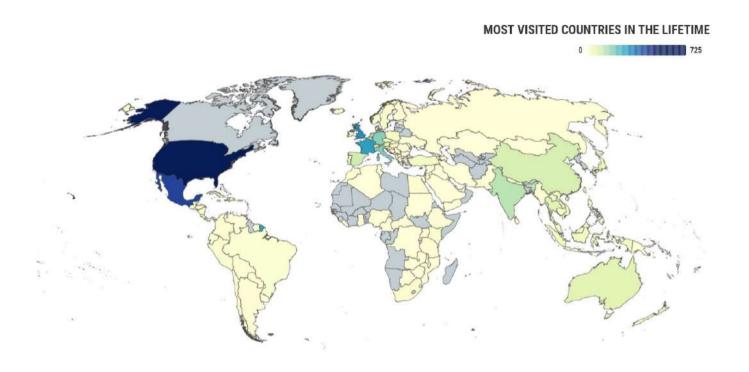
Circles sizes are proportional to the number of respondents

# TRAVEL PATTERNS (Jan 2019-April 2020)



Of students who had travelled over their lifetime, 66% indicated they had travelled internationally within the last 12 months. The United States of America, Mexico and India were the countries visited most recently.

# TRAVEL PATTERNS (lifetime)



The United States of America,
Mexico, European countries
(England, France, Italy, Germany,
Spain and the Netherlands), and
India were the most visited countries
over the students' lifetimes.

# **HEALTH PRACTICES**

### TRAVEL AND HEALTH

For students reporting travelling in the past 12 months:

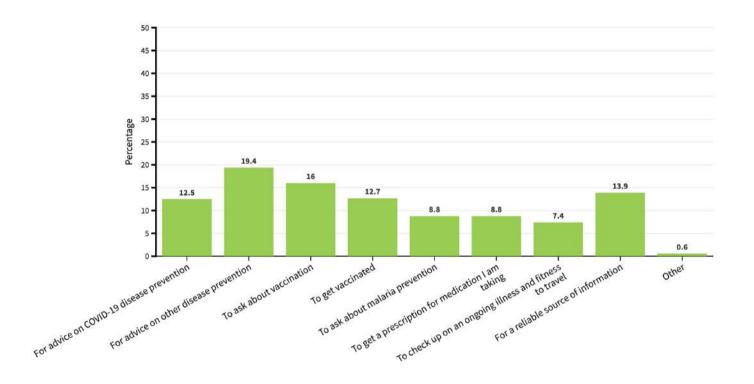
- 86% did not see a doctor or other health professional to obtain travel health advice prior to travelling, with 25% of these stating this was because they were not travelling to areas with health risk and 18% because they were up to date on vaccinations
- 33% cancelled travel plans because of COVID-19 restrictions
- 56% travelled as a tourist and 22% to visit friends and family

8296
of student participants
would consider seeing a
healthcare professional
before their next
international trip



# **HEALTH PRACTICES**

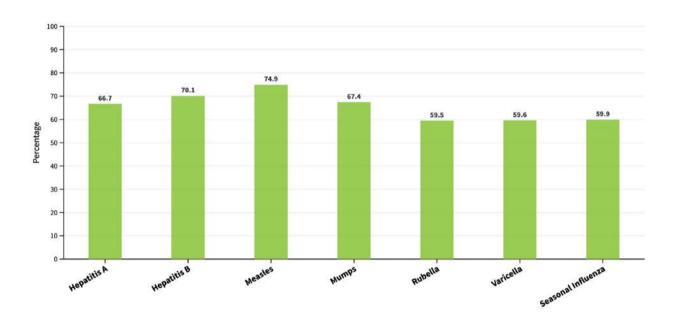
# REASONS FOR SEEKING HEALTH ADVICE





# **HEALTH PRACTICES**

### **VACCINATION STATUS\***



NOTE: Measles, Mumps, Rubella (MMR) and Varicella vaccines have deliberately listed separately in the survey. While it has been public health practice in Canada since the early 1980s to administer the MMR vaccine in a single injection, this is not always the case for students who received childhood immunizations outside of Canada. The Varicella vaccine was not added to the combined MMR vaccine as part of routine childhood immunizations in Canada until the 2010s.

\*students who responded definitely yet, yes and probably when asked if they had received these vaccinations



# **ACKNOWLEGMENTS**

Funding for this study was provided by the Canadian Institutes of Health Research (CIHR) as part of the Canadian 2019 Novel Coronavirus (COVID-19) Rapid Research Funding Opportunity (FRN 440309).



The study was conducted in conjunction with the Community Health and Social Innovation (CHASI) Research Hub and the South Asian Studies Institute (SASI) at the University of the Fraser Valley.



Special thanks go to Dr. Anita Heywood from the University of New South Wales in Australia, who is also a principal investigator on this study. This survey was based on a similar survey of Australian international students conducted by Dr. Heywood and her associates. Their results may be found in:

Ma, T., Heywood, A. & MacIntyre, C.R. (2020). Travel health risk perceptions of Chinese international students in Australia – Implications for COVID-19. Infection, Disease and Health 25(3): 197-204. https://doi.org/10.1016/j.idh.2020.03.002