

Lucas Herrenbrueck

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A Safer Return to Campus: Open letter to SFU leadership and the BC government

8/4/2021

We are writing to express serious concerns regarding SFU's "Return to Campus" plan, as shown on the university website, considering our evolving understanding of the COVID-19 pandemic and the emergence of the highly infectious Delta variant.

We believe SFU's planned COVID-19 response should not assume a low level of community transmission because a major wave of COVID-19 cases appears highly likely this Fall. Our local trend in cases, modeling and the experience of other jurisdictions all point to this conclusion:

- The prevalence of COVID-19 is increasing strongly in British Columbia, with 1,047 new cases announced in the week ending on July 30, compared to just 300 two weeks earlier. In the Lower Mainland (Vancouver Coastal and Fraser Health), there were 368 cases in the week ending on July 30, compared to 164 two weeks earlier. In the Fall, less clement weather pushing activities indoors and in-person instruction at all levels are likely to further accelerate the spread of COVID-19, as occurred last fall (even without in-person higher education). Further lifting of restrictions will probably exacerbate the situation if B.C. moves to Step 4 of its reopening plan.
- The Delta variant of SARS-CoV-2 is very infectious: it is estimated to have an Ro of 5-8, and the protection against infection in fully vaccinated individuals is estimated to be below 90%. This means that, even if with a very high vaccination rate, B.C. will likely be well short of herd immunity and exponential growth in cases should be expected if additional measures are not taken.^[1]
- Several highly vaccinated jurisdictions around the world are seeing significant outbreaks, including among fully vaccinated people. For example, Iceland is a country where 75% of the population are fully vaccinated and where the population adheres well to public health measures. Despite looking like the best-case scenario for B.C. this Fall in terms of vaccination and compliance with public health measures, Iceland's recent outbreak has resulted in over 1000 cases. Massachusetts, the most vaccinated major U.S. state with an immunization rate similar to B.C.'s, has seen daily cases increase from 60 in the last week of June to over 750 in the week ending on August 2.^[2]

Higher education is likely particularly vulnerable to the spread of COVID-19:

- Unlike in most commercial settings, relatively large groups of people are expected to share the same room for long periods of time – up to 3 hours for many courses.
- Unlike for most large gatherings, there is no practical way to cut capacity halfway through the fall if the situation worsens – short of a return to fully online instruction, which we all want to avoid.
- Unlike in K-12 education, students cannot be placed in cohorts. Undergraduates take courses and socialize across departments and faculties, so an outbreak can rapidly spread across the university.

We therefore call on the B.C. government to support universities in going beyond general COVID-related measures. This would mean, at a minimum, to stop asking universities to limit themselves to basic Provincial Health Officer and WorkSafeBC guidelines. Instead, the province should: (i) encourage universities to address the unique risks that they face and (ii) consider issuing stronger guidance and orders for the higher education sector.

We now turn to specific recommendations for SFU's response. Planning for a semester with significant community transmission of COVID-19 needs to start now: otherwise, a mid-semester change of course would cause unnecessary disruption, confusion and health risk (given the likely time lags to make such decisions) to the SFU community. Having measures in place early would also reduce the risk of SFU helping to jump start a wave of infections in Metro Vancouver.

Importantly, the SFU community is large and diverse, and includes members that cannot be vaccinated for medical reasons, for whom vaccines are less effective (e.g. seniors, people undergoing cancer treatment), or who live with immunocompromised family members. They deserve our protection.

Offering "accommodation" in the form of remote teaching/learning while the rest of us congregate on campus, by contrast, means excluding them from its community to take basic precautions that protect others rather than leave them as "personal choices" – les – to ensure a safe workplace for everyone.

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We call on SFU to adopt the following policies for a safe return to in-person instruction:

1. Promote **vaccination** of SFU employees and students to the maximal extent feasible, as follows:
 - (a) Mandate vaccination for students living in residences, as many Canadian universities have already done.[3] Many U.S. universities, including the (public) University of California system, have gone further, requiring all students, faculty and staff (with limited exemptions) to be vaccinated against COVID-19. SFU should urgently explore whether this is feasible under Canadian law (we note that several law professors have publicly said it is).[4]
 - (b) Proactively request and lobby for vaccination clinics on all three campuses rather than wait to be approached by provincial authorities. These clinics should be in convenient, high-traffic locations and be prominently advertised.
2. Require and promote **mask-wearing** in all public indoor settings on campus for at least the Fall 2021 semester,[5] given that: (i) SARS-CoV-2 is spread by aerosols and physical distancing is therefore not an adequate substitute to wearing masks in a classroom setting; (ii) the SFU community will not be close to 100% fully vaccinated;[6] (iii) according to the evidence cited above, transmission and super-spreader events can occur even in a highly vaccinated population. We also suggest the following complementary measures:
 - o Post guidance across campuses on how to put on a mask properly to achieve a tight fit around the nose and mouth, and include such guidance in workplace safety training.
 - o Offer free N95 or FFP2 masks to immunocompromised SFU community members who need the extra protection to safely participate in the campus community.

We are pleased that SFU has been checking and improving the **ventilation** systems on campus, and that it has conducted a rapid testing pilot. We would like to see the **rapid testing** program rolled out to the entire SFU community – vaccinated or not – until community spread of the virus is well under control, and we would like to see a similarly proactive approach to mask use and vaccination, as detailed above.

If any organization should have the resources to stay up to date with the science and quickly translate it into evidence-based policies, it is an institution of higher learning. The B.C. government should free its colleges and universities to make use of this advantage, and SFU should seize the ball and be proactive in its response.

Sincerely,

Lucas Herrenbrueck, Associate Professor, Economics (herrenbrueck@sfu.ca)
Shih En Lu, Associate Professor, Economics (shihenl@sfu.ca)

Co-signed by:

Kathleen Akins, Professor, Philosophy/Cognitive Science (kathleen_akers@sfu.ca)
Yagiz Aksoy, Assistant Professor, Computing Science (yagiz@sfu.ca)
Holly Andersen, Associate Professor, Philosophy (handerse@sfu.ca)
Gail Anderson, Professor, Criminology (ganderso@sfu.ca)
Martin Andresen, Professor, Criminology (andresen@sfu.ca)
Jasmina Arifovic, Professor, Economics (jasmina_arifovic@sfu.ca)
Anne-Kristina Arnold, Senior Lecturer, Biomedical Physiology and Kinesiology (aarnolda@sfu.ca)
Yildiz Atasoy, Professor, Sociology (yatazoy@sfu.ca)

Behraad Bahreyni, Associate Professor, School of Mechatronic Systems Engineering (bba19@sfu.ca)
Greg Baker, University Lecturer, Computing Science (ggbaker@sfu.ca)
Janice Banser, Digital & Web Services Librarian (jbanser@sfu.ca)
Lyn Bartram, Professor, School of Interactive Arts and Technology (lyn@sfu.ca)
Christopher Beh, Professor, Molecular Biology and Biochemistry (ctbeh@sfu.ca)
Martin Bouchard, Professor, Criminology (mbouchard@sfu.ca)
Jeremy Brown, Associate Professor, History (jeremy_brown@sfu.ca)
Neil Boyd, Professor, Criminology (nboyd@sfu.ca)
Tracy Brennand, Professor, Geography (tabrenna@sfu.ca)
Clint Burnham, Professor, Department of English (clint_burnham@sfu.ca)

Kelvin Chan, Budget Assistant, Morris J. Wosk Centre for Dialogue (kelvin_c@sfu.ca)
Mo Chen, Assistant Professor, Computing Science (mochen@cs.sfu.ca)
El Chenier, Professor, History (echenier@sfu.ca)
Parmit Chilana, Assistant Professor, School of Computing Science (pchilana@cs.sfu.ca)
Clossey, Professor, Mathematics (cclossey@sfu.ca)

POWERED BY research Chair, Mathematics (ccolijn@sfu.ca)

Dylan Cooke, Assistant Professor, Biomedical Physiology and Kinesiology (dfcooke@sfu.ca)
 Elizabeth Cooper, Assistant Professor, School for International Studies (elizabeth_cooper@sfu.ca)
 Henry Daniel, Distinguished SFU Professor, School for the Contemporary Arts (hdaniel@sfu.ca)
 Leith Davis, Professor, Department of English (leith@sfu.ca)

James Delgrande, Professor, Computing Science (jim@cs.sfu.ca)
 Laurent Dobuzinskis, Associate Professor, Political Science (dobuzins@sfu.ca)
 Susan Erikson, Professor, Health Sciences (slerikson@sfu.ca)
 Martin Ester, Professor, Computing Science (ester@cs.sfu.ca)
 Sheri Fabian, University Lecturer, Criminology (sfabian@sfu.ca)
 Mark Fettes, Associate Professor, Education (mtfettes@sfu.ca)
 Michael Filimowicz, School of Interactive Arts and Technology (michael_f@sfu.ca)
 Nancy Forde, Professor, Physics (nforde@sfu.ca)
 Richard Frank, Associate Professor, Criminology (rfrank@sfu.ca)
 Brian Fraser, Senior Lecturer, Computing Science (bfraser@sfu.ca)

David Freeman, Associate Professor, Economics (david_freeman@sfu.ca)
 Jane Friesen, Professor, Economics (friesen@sfu.ca)
 Samir Gandesha, Associate Professor and Director, Institute for the Humanities (samir_gandesha@sfu.ca)
 Sarah Anne Ganter, Assistant Professor, School of Communication (sganter@sfu.ca)
 Kyla Gardiner, Assistant Professor, School for the Contemporary Arts (kylag@sfu.ca)
 Carla Graebner, Librarian, W.A.C. Bennet Library (cgraebne@sfu.ca)
 Meghan Grant, Undergraduate Academic Advisor, Faculty of Arts and Social Sciences (meg6@sfu.ca)
 Martin Hahn, Associate Professor, Philosophy (mhahn@sfu.ca)
 Elda Hajdarovac, Student Advisor and Outreach, World Languages and Literatures (wlladv@sfu.ca)
 Olena Hankivsky, Professor, School of Public Policy (olena@sfu.ca)

Nancy Hedberg, Professor, Linguistics and Cognitive Science (nancy_hedberg@sfu.ca)
 Claudia Hein, Senior Lecturer, World Languages and Literatures (claudia_hein@sfu.ca)
 Maaïke Helmus, Assistant Professor, Criminology (maaike_helmus@sfu.ca)
 Holly Hendrigan, Librarian, Faculty of Applied Sciences (hah1@sfu.ca)
 Elisa Herrell, Undergraduate Advisor and Recruiter, Faculty of Arts and Social Sciences (elisa@sfu.ca)
 Suzanne K. Hilgendorf, Professor, Linguistics (skh7@sfu.ca)
 Nicole Jackson, Associate Professor, School for International Studies (nicole_jackson@sfu.ca)
 Amir Jahanlou, PhD student, School of Interactive Art and Technology (amir_jahanlou@sfu.ca)
 Leanna Jantzi, Head, Fraser Library (leanna_jantzi@sfu.ca)
 Mohsen Javdani, Associate Professor, School of Public Policy and Urban Studies (mjavdani@sfu.ca)

Sharalyn Jordan, Associate Professor, Faculty of Education (sjordan@sfu.ca)
 Alexander Karaivanov, Professor, Economics (alexander_karaivanov@sfu.ca)
 Malcolm Kennett, Associate Professor, Physics (malcolm_kennett@sfu.ca)
 Anne Lavergne, Senior Lecturer, Computing Science (anne_lavergne@sfu.ca)
 Scott Lear, Professor, Health Sciences (slear@sfu.ca)
 Mark Leier, Professor, History (leier@sfu.ca)
 Carolyn Lesjak, Associate Professor, English (clesjak@sfu.ca)
 Helen Leung, Professor, Dept. of Gender, Sexuality & Women's Studies (hhl@sfu.ca)
 Jing Li, Professor, Beedie School of Business (jingli@sfu.ca)
 Jie Liang, Professor, School of Engineering Science (jiel@sfu.ca)

Helene Love, Lecturer, School of Criminology (helene_love@sfu.ca)
 Alexandra Lysova, Assistant Professor, Criminology (alysova@sfu.ca)
 Jan MacLean, Senior Lecturer, Faculty of Education (jlmaclea@sfu.ca)
 Atiya Mahmood, Associate Professor, Gerontology, FASS (amahmood@sfu.ca)
 Ebony Magnus, Head, Belzberg Library (ebony_magnus@sfu.ca)
 Janice Matsumura, Associate Professor, History (janice_matsumura@sfu.ca)
 Isabel Mayo-Harp, Lecturer, World Languages and Literatures (mayoharp@sfu.ca)
 Eugene McCann, Professor, Geography (emccann@sfu.ca)
 Elise K. McClay, Research Technician, Linguistics (emclay@sfu.ca)
 Janis McKenzie, Librarian, SFU Library (ianis_mckenzie@sfu.ca)

POWERED BY

Tamir Moustafa, Professor, School for International Studies (tmoustafa@sfu.ca)
 Tiffany Muller Myrdahl, Senior Lecturer, Gender, Sexuality, and Women's Studies and Urban Studies (tiffany_muller_myrdahl@sfu.ca)
 Danielle J. Murdoch, Lecturer, School of Criminology (dmurdoch@sfu.ca)
 Vivian Neal, Lecturer, Sustainable Energy Engineering (vneal@sfu.ca)
 Billie Ng, University Lecturer, World Languages & Literature (billie_ng@sfu.ca)
 Nilima Nigam, Professor, Mathematics (nigam@math.sfu.ca)
 Tamara O'Doherty, Lecturer, Criminology (tamara_odoherly@sfu.ca)
 Nancy Olewiler, Professor and Director, School of Public Policy (olewiler@sfu.ca)
 Melek Ortabasi, Associate Professor, World Languages and Literatures (melek_ortabasi@sfu.ca)
 Gerardo Otero, Professor, School for International Studies (otero@sfu.ca)

Irene Pang, Assistant Professor, International Studies (irene_pang@sfu.ca)
 Cindy Patton, Professor, Sociology and Anthropology (cindy_patton@sfu.ca)
 Mauricio Pauly, Assistant Professor, School for the Contemporary Arts (mpauly@sfu.ca)
 Christopher Pavsek, Associate Professor, School for the Contemporary Arts (cpavsek@sfu.ca)
 Luba Petersen, Associate Professor, Economics (lubap@sfu.ca)
 Gaëlle Planchenault, Associate Professor, French (gplanche@sfu.ca)
 Hazel Plante, Librarian, Bennett Library (hazel_plante@sfu.ca)
 Erika Plettner, Professor, Chemistry (plettner@sfu.ca)
 Damon Poburko, Associate Professor, Biomedical Physiology and Kinesiology (dpoburko@sfu.ca)
 Levon Pogolian, Professor, Physics (levon@sfu.ca)

Judy Radul, Professor, School for the Contemporary Arts (jaradul@sfu.ca)
 Margaret Ramirez, Assistant Professor, Geography (mm_ramirez@sfu.ca)
 Simone Rapisarda, Assistant Professor, School for the Contemporary Arts (srapisar@sfu.ca)
 Marie Rekkas, Associate Professor, Economics (mrekkas@sfu.ca)
 John Richards, Professor, Public Policy (john_richards@sfu.ca)
 Bernhard Riecke, Professor, School of Interactive Arts and Technology (ber1@sfu.ca)
 Chloe Riley, Librarian, SFU Library (chloe_riley@sfu.ca)
 Noe Rodriguez, Lecturer, School for the Contemporary (noe_rodriguez@sfu.ca)
 Michael Rosenblat, Lecturer, Biomedical Physiology and Kinesiology (michael_rosenblat@sfu.ca)
 Chelsea Rosenthal, Assistant Professor, Philosophy (crosenth@sfu.ca)

Zachary Rowan, Assistant Professor, Criminology (zrowan@sfu.ca)
 Peter Ruben, Professor, Biomedical Physiology and Kinesiology (pruben@sfu.ca)
 Barbara Sanders, Associate Professor, Statistics & Actuarial Science (bsanders@sfu.ca)
 Nicolas Schmitt, Professor, Economics (schmitt@sfu.ca)
 Sabrina Schroeder, Assistant Professor, School for the Contemporary Arts (sabrina_schroeder@sfu.ca)
 Jamie Scott, Professor Emerita, Molecular Biology & Biochemistry (jkscott@sfu.ca)
 Özlem Sensoy, Professor, Faculty of Education (ozlem@sfu.ca)
 Nikolay Shchitov, Sessional Instructor, Criminology (nshchito@sfu.ca)
 Thomas Shermer, Professor, Computing Science (shermer@sfu.ca)
 Tracey Sherwood, Office of the Dean, Faculty of Arts and Social Sciences (tracey_sherwood@sfu.ca)

Gillian Smith, Lecturer, Education (gds1@sfu.ca)
 Jon Smith, Professor, English (jon_smith@sfu.ca)
 Ashley Tanasiychuk, Communications Officer, Faculty of Arts and Social Sciences (awtan@sfu.ca)
 Jenifer Thewalt, Professor, Molecular Biology & Biochemistry and Physics (jthewalt@sfu.ca)
 Mike Thewalt FRSC, Professor Emeritus, Physics (thewalt@sfu.ca)
 Paul Tupper, Professor, Mathematics (pft3@sfu.ca)
 Ilya Vinkovetsky, Associate Professor, History (ivink@sfu.ca)
 Jenna Walsh, Librarian, SFU Library (jmwash@sfu.ca)
 Sarah Walshaw, Senior Lecturer, History (sarah_walshaw@sfu.ca)
 Nadine L. Wicks, Senior Lecturer, Biomedical Physiology and Kinesiology (nwicks@sfu.ca)
 Stephanie Wiley, Assistant Professor, School of Criminology (swiley@sfu.ca)

Kyle Willmott, Assistant Professor, Sociology (kyle.willmott@sfu.ca)
 Jennifer Wong, Associate Professor, Criminology (jenwong@sfu.ca)
 Azadeh Yamini-Hamedani, Associate Professor, World Languages and Literatures (azadeh_yamini-hamedani@sfu.ca)

Ellen Siew Meng Yap, Manager, School for International Studies (ellenyap@sfu.ca)
 Baharak Yousefi, Librarian, Belzberg Library (byousefi@sfu.ca)
 Jennifer Zerkee, Copyright Specialist, SFU Library (jstevens@sfu.ca)
 Natalie Bin Zhao, Associate Professor, Beedie School of Business (natalie_zhao@sfu.ca)
 Yushu Zhu, Assistant Professor, Urban Studies Program and School of Public Policy (yushu_zhu@sfu.ca)
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Please email Lucas Herrenbrueck or Shih En Lu if you would like to add your signature to this list. If you want to be extra helpful, please pre-format it as: name, position, department/faculty/school (SFU email address). Big thanks to everyone!

:: FOOTNOTES ::

[1] **Ro of Delta is 5-8**; vaccine efficacy against symptomatic infection is **85-90% for two doses of the Pfizer/BioNTech vaccine**, but less for many other vaccines. Vaccinated or not, people who do get infected with Delta may be **similarly likely to pass the disease on to others**. See also the BC COVID-19 Modelling Group's **latest report**.

[2] In Iceland, about 3/4 of recent infections are in fully vaccinated individuals; for more details, **see the Appendix to this letter**. In Massachusetts, **over 40% of cases from July 10-16** were found among the fully vaccinated, and there was a major outbreak where 74% of cases were in fully vaccinated individuals. In Singapore, **again over 40% of recent cases** were in the fully vaccinated. Outbreaks occurred in **two San Francisco hospitals** where over 80% of staff were vaccinated.

[3] **Source**. The B.C. Provincial Health Officer is already on record saying that “to make it as safe as possible... may mean if you’re living in residence that you need to have proof of immunization” (<https://www.youtube.com/watch?v=It1afVleAqA>, 42:12-43:12)

[4] www.macleans.ca/opinion/canadas-universities-and-colleges-are-failing-science/. We also note the subhead: “by not requiring COVID-19 vaccination like the world’s top institutions, Canada’s universities are making themselves the dunces of COVID-19”.

[5] There is now a sizeable scientific literature showing the efficacy of both masks and mask *mandates* against COVID-19.

[6] Considering the dose interval and time to build up immunity, individuals receiving their first dose now in response to a vaccination requirement would not develop maximal protection for 6-10 weeks. Furthermore, incoming international students may only be able to access vaccination after arriving in Canada, and others may have received a vaccine not approved in Canada that provides less protection against the Delta variant. For an illustrative calculation, **see this from our UBC colleagues**.

:: APPENDIX ::

Case study of Iceland in July 2021

Exhibit 1 (below left, **source**): Iceland achieved full vaccination of 70% of all residents on July 9, 2021. For comparison, as of today only 71.32% of Canadians have received a *single* shot of vaccine, and **B.C.’s restart plan proposes** that we relax all restrictions on masks and social contact once 70% of all *adults* – that is to say, only about 60% of all residents – have been fully vaccinated.

Exhibit 2 (below right, **source**): Between July 16 and July 30, Iceland’s 7-day average of daily new COVID-19 cases increased by a *factor of 68*, from 1.57 to 106.71 in raw numbers. Adjusted for population, this is a higher daily incidence of infections than Canada (or B.C.) has experienced at any point in the pandemic.

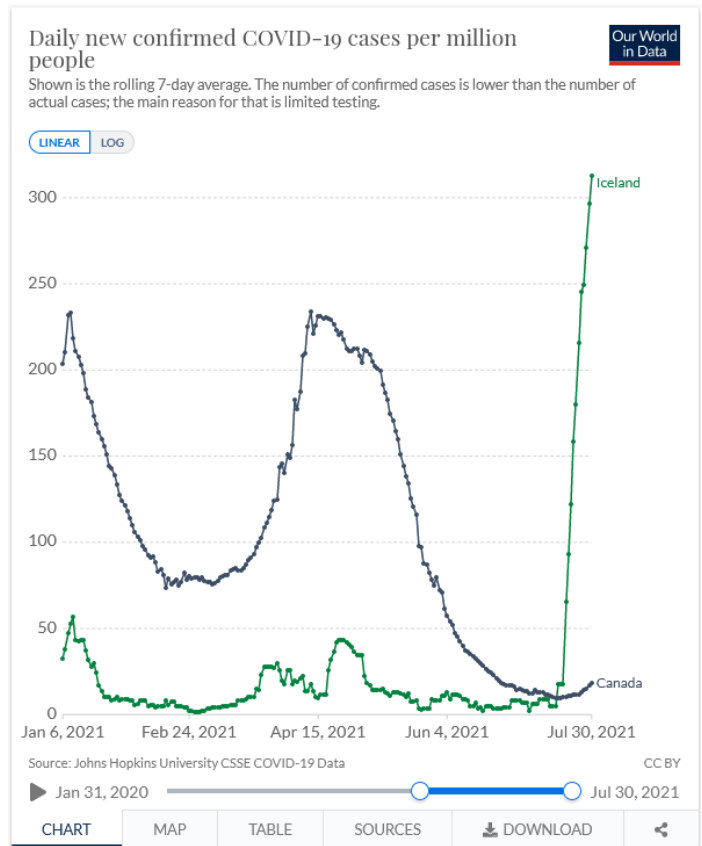
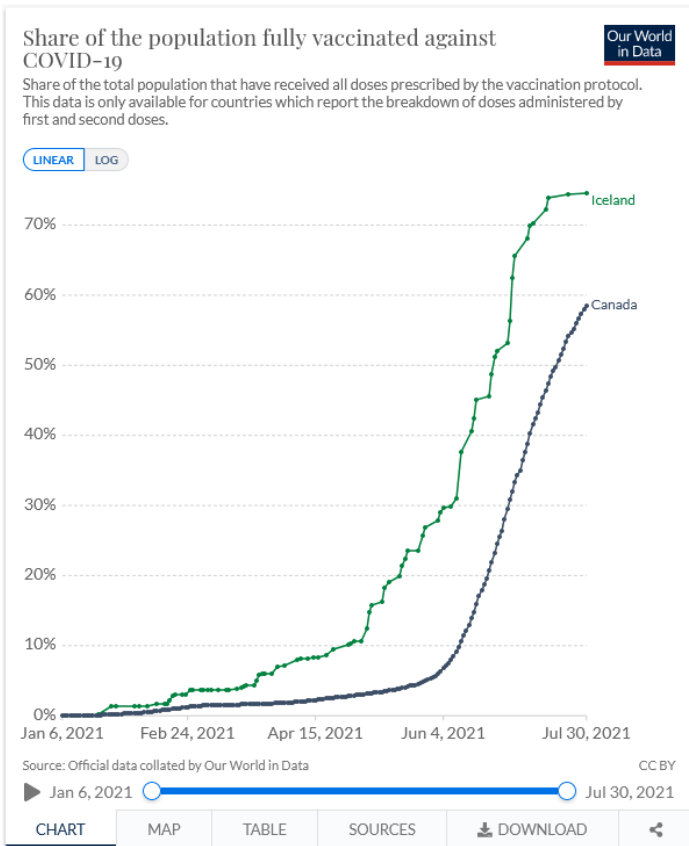
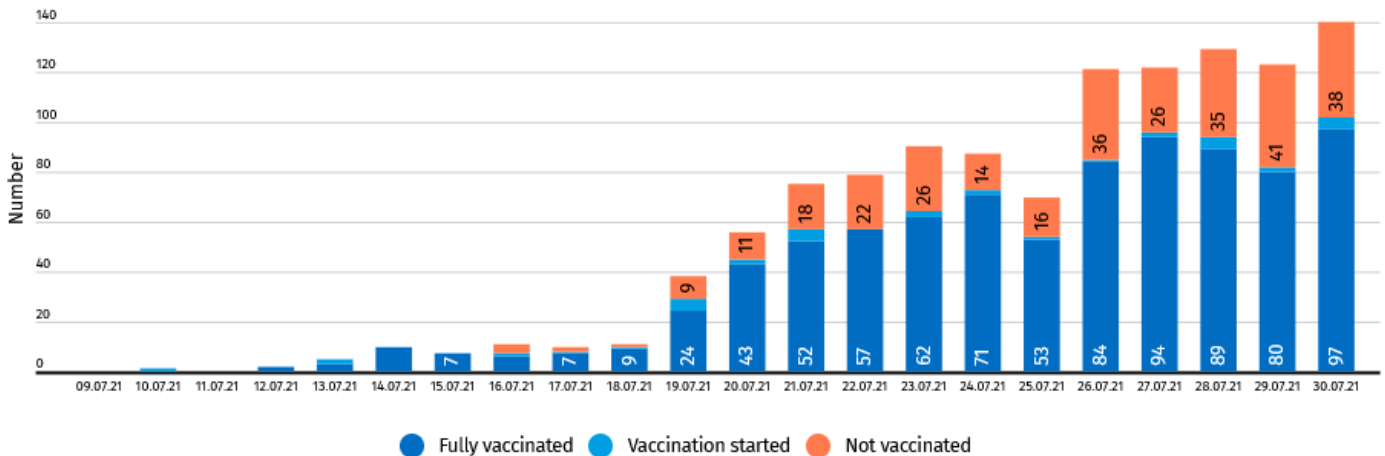


Exhibit 3 (source): About three-quarters of all infections in Iceland’s outbreak are among vaccinated people, demonstrating that the Delta variant can still spread in a highly vaccinated population.

Number of vaccinated individuals among domestic infections



With an adult vaccination rate exceeding 80% and an educated population, Iceland is as good a model as any for what SFU campuses will look like this fall. Therefore, what happened there can (and, given enough time and insufficiently protective measures, will) happen here. Now, imagine that a similar outbreak happens at SFU this fall: a highly infectious individual enters a tightly packed lecture hall for a midterm. Soon after we discover 10 cases, then 100, then 1000. Let’s say (like in Iceland’s example) that 750 are vaccinated and immune; statistically, nearly all of them will be safe from serious outcomes. But the same cannot be said for the 250 unvaccinated or immunocompromised members of our community that would be affected: statistically, one of them will die and several dozen will experience long-term effects including loss of cognitive function. And even the 750 ‘safe’ cases will be forced to isolate for two weeks, along with an even greater number of close contacts.

On the one hand we have: the likelihood of putting dozens of community members at risk of severe health outcomes – including those with immune deficiency, disabilities, and undergoing cancer treatment – along with forcing hundreds of others out of their classrooms, labs, and offices for two weeks

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On the other hand we have: the inconvenience of wearing masks whenever we meet in groups indoors, for part or all of the fall term, and asking those who can get vaccinated to do so.

If we choose the status quo, who are we “being kind” to?

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