

DATA SHARING AGREEMENT

(herein “Agreement”)

BETWEEN: [ORGANIZATION] a corporation under the laws of [JURISDICTION] having its principal place of business at [ADDRESS] (herein “**Provider Institution**”)

AND: Prof. [NAME OF SCIENTIST] (herein “**Provider Scientist**”)

(Provider Institution and Provider Scientist are collectively referred to as “**Provider**”)

AND: The Royal Institution for the Advancement of Learning/McGill University having a principal place of business at 845 Sherbrooke Street West, James Administration Building, Montréal, Québec, H3A 0G4 (hereinafter referred to as “**Recipient Institution**”) on behalf of COVID-19 Immunity Task Force (herein “**CITF**”) Secretariat, hosted at McGill University

Dr. David Buckeridge (herein “**Recipient Scientist**”)

AND: (Recipient Institution and Recipient Scientist are collectively referred to as “**Recipient**”)

(Provider and Recipient are hereinafter referred to individually each as a “**Party**” and collectively as the “**Parties**”)

WHEREAS Recipient was provided with funding from the Government of Canada through a Contribution Agreement signed on May 29, 2020, to support the activities of the CITF to measure the scope of coronavirus infection in Canada and rapidly provide information needed to manage the COVID-19 pandemic;

WHEREAS the Provider is the recipient of funds from [the Government of Canada through the Public Health Agency of Canada (PHAC)/the Canadian Institutes for Health Research (CIHR)/Other] to carry out the project [NAME OF PROJECT] as described under Appendix 1 (herein “**Research Project**”);

WHEREAS the Recipient through the CITF Secretariat, is mandated to coordinate multi-site sero-surveys assessing COVID-19 immunity in the Canadian population and to provide regular scientific updates to the Government of Canada on the state of serologic testing and the evolving understanding of immunity related to SARS-CoV-2 (herein “**Study**”);

WHEREAS the Study will include the creation of a database where the Data that is shared by Provider with Recipient will be centralized, harmonized, and stored (herein “**CITF Database**”) as defined in the Framework to support the Study (herein “**CITF Data**”).

WHEREAS the CITF Data will be securely made available to third parties through the access framework for further research;

WHEREAS Recipient has established the organizational structure, technical elements, and operational policies fundamental to the CITF’s mandate as per Appendix 3, the CITF Data Governance Framework (herein “**Framework**”);

WHEREAS the Provider is willing to provide Recipient for use in the Study certain data arising from the Research Project as per the terms and conditions set out in this Agreement.

NOW THEREFORE THIS AGREEMENT WITNESSETH that in consideration of the premises and covenants set out in this Agreement, the Parties agree as follows:

1. DEFINITIONS.

In this Agreement, the following words have the following definitions:

- 1.1. “**Data**” means all personal data (including without limitation medical data and information and other personal health information) and non-personal data and associated metadata that has been collected for the purpose of the Research Project by Provider to Recipient for the purpose of carrying out the Study, as further set out in Appendix 2. The Data will have direct identifiers removed and Provider will code the data where the key for participants identification will only be held by the Provider;
- 1.2. “**Controlled Access**” means Data that will be held securely and access will only be made available through CITF-approved requests that are in compliance with Framework;
- 1.3. “**Open Access**” means Data that will be made freely available, to be used and republished;
- 1.4. “**Effective Date**” means the date upon which the Agreement becomes effective and corresponds to date of the last signature to the Agreement;

2. PROVIDER’S OBLIGATIONS

- 2.1. Provider shall provide the Data to Recipient to be centralized, harmonized and stored in the CITF Database as further set out in the Framework. The Data shall be provided in accordance with the milestones/deliverables set out in Appendix 1.
- 2.2. Provider represents and warrants having the necessary authority to share the Data with Recipient in accordance with this Agreement and, without limiting the generality of the foregoing, the Framework. Provider will prepare and furnish Data in accordance with all applicable laws, regulations, guidelines and policies, including, but not limited to laws regarding the privacy or protection of personal or medical information and the Quebec Act Respecting Access to Documents Held by Public Bodies and the Protection of Personal Information (“**Applicable Law**”). Provider has obtained all appropriate participant consents including as described in the Framework. Data will not be collected and/or transferred until Provider’s research ethics board (“**REB**”) and, if applicable Provider’s third-party REB and Recipient’s REB, have: a) approved the

Research Project protocol, including the transfer of the Data to Recipient for inclusion in the CITF Database; and b) approved the Research Project informed consent forms or waived the requirement to obtain consent.

- 2.3. Upon transfer of the Data from Provider to Recipient in accordance with the Framework, the Provider will have to acknowledge and agree to the terms of a data sharing agreement.

3. RECIPIENT'S OBLIGATIONS

- 3.1. Recipient shall only use the Data in compliance with this Agreement and the Framework. Without limiting the generality of the foregoing, Recipient shall not use the Data to attempt to identify or make contact with any of Provider's research participants.
- 3.2. Recipient, will safeguard the Data in a secure infrastructure physically located in Canada, or in another secured database in compliance with the Framework and Applicable Law. If CITF were to become inactive, Recipient will be able to transfer the Data to a third party organization for its long-term safekeeping and preservation. This transfer will be subject to a new agreement between Recipient and such third-party organization in compliance with the Framework and Applicable Law.
- 3.3. Recipient will use reasonable efforts to maintain the confidentiality of the Data and to prevent any unauthorized access, reproduction, disclosure and/or use of the Data. Notwithstanding the above, Provider acknowledges and agrees that the Data and CITF Data may be accessed by third parties for defined uses consistent with the mandate of CITF as more fully described in the Framework, for example, through Controlled Access, and/or Open Access. In addition, Recipient may transfer the Data:
 - (i) to regulatory authorities, provided that the Recipient gives prior written notice of such intended disclosure to Provider;
 - (ii) in order to comply with Applicable Law or judicial process, or with a court or regulatory order, provided that Recipient gives prior written notice of such intended disclosure to Provider and takes all lawful actions that are reasonable in the circumstances to minimize the extent of such disclosure and obtain confidential treatment for such disclosure.
- 3.4. In the event of an actual or reasonably suspected breach of confidentiality, or unauthorized disclosure by mistake or otherwise of Data, Recipient shall promptly give written notice of such to the Provider and shall work with Provider to prevent further disclosure and limit potential damages caused by such disclosure.

4. DISCLAIMER AND LIABILITY

- 4.1. Except as expressly set out herein, neither Party makes any representations, warranties, conditions or liabilities expressed or implied herewith in relation to any matter hereunder.
- 4.2. Neither Party shall be liable to the other for indirect or consequential damages.

5. INTELLECTUAL PROPERTY AND RELATED RIGHTS

- 5.1. The Provider hereby agrees that the Data be treated in accordance with the intellectual property and related rights as described in the Framework. The Provider hereby waives any right to claim any

interest in any intellectual property rights that may arise out of use of the Data by third parties pursuant to the Framework.

6. PUBLICATION.

6.1. Any communication with the CITF Secretariat will be as per Section 16, Notices. Provider Institution and Provider Scientist acknowledge that CITF Secretariat may publicize the projects and investigators it supports through the internet, social media, press releases, printed materials released to the public, public reports, speeches, newsletters, and other media, as well as in marketing and promotional materials, in accordance with applicable laws.

6.2. The Provider Scientist agrees to submit, in a timely manner, such information, written material, images, photographs, video, or other content related to the Research Project (the “**Publicity Content**”) as may be reasonably requested by the CITF Secretariat to contribute to these publicity efforts. The Provider Scientist consents to the publication of her/his name, as well as names of all co-applicants and collaborators, the title of the Research Project, and the amount of the award, and event photos in association with this award (e.g. on the CITF website).

6.3. The Provider Scientist acknowledges and agrees that (i) all information in submitted Publicity Content shall be accurate, (ii) the Provider Scientist shall notify the CITF Secretariat of any subsequent change that renders such information materially inaccurate, (iii) the Provider Scientist shall notify the CITF Secretariat in writing of any credits that are required to be associated with the Publicity Content, and (iv) any persons that are individually identifiable in the submitted Publicity Content (or, for persons under the legal age of consent in the applicable jurisdiction, their parents or guardians) shall have consented to the uses contemplated herein. Recipient acknowledges that Provider Scientist and/or Provider Institution may also publicize the Research Project on its website, intranet and/or internal newsletters, in accordance with Provider Institution’s internal policies and procedures and applicable laws.

6.4. The Provider Scientist shall have the right to publish the results of, or accounts of, the Project. While there is no mandatory requirement for notification of publication or review of publication from funded studies by the CITF to the CITF Secretariat, bi-directional communication is strongly encouraged to support common interpretation of the Data and coordinated public health messaging. More specifically:

6.4.1. The CITF Secretariat will establish a process for providing feedback on manuscripts. Provider Scientist can notify the CITF Secretariat of intent to publish and the CITF Secretariat will endeavor to review the manuscript and highlight any issues that may benefit from discussion.

6.4.2. The CITF Secretariat will also endeavor to engage with Provider Scientist around analyses to synthesize core data elements drawn from multiple studies that have data.

6.4.3. Researchers accessing centralized core data elements from the CITF Data Access Committee (DAC) will not be required to notify the CITF regarding publications.

6.5. The following acknowledgment shall be included in any publications that result from or in relation to the Project that received funding from the CITF “*This project was supported by funding from the Government of Canada, through the COVID-19 Immunity Task Force./ Ce projet a été soutenu par un financement du Gouvernement du Canada, par le biais du Secrétariat du groupe de travail sur l'immunité COVID-19*” unless the McGill CITF Secretariat has advised otherwise. The Parties agree that any scientific publication made pursuant to this Agreement shall be made in accordance with the custom of scientific research and shall acknowledge the contribution of the Parties’ scientists, as appropriate. Specifically for third-party users that are not funded studies by the CITF and have requested and received approval to access centralized core data elements from the DAC, these third-party users will attribute the CITF in

publications where the attribution could be a link to a dynamic list of studies contributing data to the CITF, or by citing a central marker paper describing the work and authored by CITF Secretariat individuals that includes Principal Investigators from contributing studies.

7. TERM.

7.1. The term of this Agreement shall be as per Appendix 1 and provisions for survival will be as per Section 12.

7.2. Provider may request withdrawal of the Data in the following manner:

- 7.2.1. there is a research participant or sample donor withdrawal request for their own personal data;
- 7.2.2. there is a change in the data custodian and the data governance conditions established in Framework;
- 7.2.3. CITF ceases to exist;

Notwithstanding the above, Data that has already been shared with third parties external to the CITF will not be withdrawn from such third parties; and Data that is being used by a research study, the destruction of which would compromise the integrity of that research study, will not be destroyed from the CITF Database until after the research study is completed, to preserve the scientific integrity of the concerned research.

8. NOTICES. All notices: (a) shall be in writing and shall be deemed to have been given on the date they are: (i) delivered by hand; (ii) received from any reputable delivery service that provides tracking and written verification of delivery; or (iii) transmitted by e-mail, all if given on a business day prior to 5:00 pm failing which they shall be deemed to be given, delivered or made the next business day; (b) shall be given at the following addresses or at such other address as may be indicated by one party to the other by notice as aforesaid:

If to CITF Secretariat:

Olivia Oxlade
Associate Scientific Director (Management)
Email: olivia.oxlade@mcgill.ca

With a copy to McGill:

McGill University
Office of Sponsored Research
James Administration Building
845 Sherbrooke W., 2nd floor
Montreal Quebec, H3A 0G4
Attn: Carole Goutorbe
Associate Director Awards Management
Email: carole.goutorbe@mcgill.ca

If to Provider Institution: To be completed

with a copy to Provider Scientist: To be completed

- 9. USE OF NAME.** Provider shall not use Recipient’s name or trademark or any adaptation thereof without the prior written consent of its duly authorized representative.
- 10. WAIVER OF RIGHTS.** No waiver or failure by the Parties to enforce their right or insist on strict performance of this Agreement shall be deemed to prevent the Parties from subsequently enforcing their rights or insist on strict performance under the Agreement. No waiver or failure to strictly enforce rights shall affect the validity of this Agreement.
- 11. SEVERABILITY.** The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of the Agreement itself or any of its provisions.
- 12. SURVIVAL.** The provisions of sections 3, 4, 5, 6, 7.2 and 9, shall survive the termination of this Agreement with section 3 surviving termination of this Agreement until CITF ceases to exist.
- 13. ASSIGNMENT.** Neither Party shall have the right to assign this Agreement without the written consent of the other Party. Such consent shall not be unreasonably withheld.
- 14. HEADINGS.** The headings contained in this Agreement are for convenience and reference only and shall not define or limit the scope, or affect the interpretation of, its provisions.
- 15. AMENDMENTS.** Any modification to this Agreement shall be agreed to in writing and approved by an authorized representative of the Parties.
- 16. COUNTERPARTS.** This Agreement may be executed in one or more counterparts, each of which together shall constitute one and the same Agreement. For purposes of executing this Agreement, a facsimile (including a PDF image delivered via email) copy of this Agreement, including the signature pages, will be deemed an original.
- 17. LANGUAGE.** *Les Parties ont requis que cette entente soit rédigée en anglais.* The Parties have requested that this Agreement be drafted in English.
- 18. GOVERNING LAW.** This Agreement shall be governed by the laws of Québec, and Canadian laws applicable therein without regard to their provisions on conflict of Law.

[The remainder of the page is blank. Signature page follows.]

Appendix 1

Description of Research Project

[Please provide a detailed description of the research project: (use additional pages as needed)]

This Appendix must have the following minimal information which is referred to in this Agreement:

- Scope of Work, (the technical and scientific description of the Project);
- Deliverables
- Responsibilities and duties of Scientific Coordinators;
- Time schedule, including any milestones;

Appendix 2

Description of Core Data Elements and Associated Metadata



Appendix 2: CITF Core Data Elements, cross-sectional studies, Version 2

| CITF Domain | Number | Label | Type | Cardinality | Value constraints | Question |
|-------------|--------|--------------------------------------|-------------|-------------|---|---|
| - | 00 | Unique participant's identifier | string | single | Guidelines will be provided | - |
| DEMOGRAPHIC | 01 | Date of interview | date | single | "YYYY-MM-DD" | Date of interview |
| DEMOGRAPHIC | 02.a | Age of participant (years) | numerical | single | [0, 120] | What is your age |
| DEMOGRAPHIC | 02.b | Age of participant (months) | numerical | single | [0, 11] | What is your age |
| DEMOGRAPHIC | 02.c | Age of participant PNA | | | | What is your age |
| DEMOGRAPHIC | 03 | Sex at birth of participant | categorical | single | {01-MALE, 02-FEMALE, 03-PREFER TO SELF-DESCRIBE, 99-PREFER NOT TO ANSWER} | What was your assigned sex at birth |
| DEMOGRAPHIC | 03.a | Sex at birth self-description | string | single | | (specify) |
| DEMOGRAPHIC | 04 | Current sex of participant | categorical | single | {01-MALE, 02-FEMALE, 03-PREFER TO SELF-DESCRIBE, 99-PREFER NOT TO ANSWER} | What is your sex now |
| DEMOGRAPHIC | 04.a | Current sex self-description | string | single | | (specify) |
| DEMOGRAPHIC | 05 | Gender of participant | categorical | single | {01-MAN, 02-WOMAN, "03-NON-BINARY, GENDERQUEER, AGENDER OR A SIMILAR IDENTITY", 04-TWO-SPIRIT, 05-PREFER TO SELF-DESCRIBE, 99-PREFER NOT TO ANSWER} | What is your gender (How do you currently self-identify) |
| DEMOGRAPHIC | 05.a | Gender self-description | string | single | | (specify) |
| DEMOGRAPHIC | 06 | Indigenous identity of participant | categorical | single | {00-NO, 01-YES, 99-PREFER NOT TO ANSWER} | Are you an Indigenous person originating from North America |
| DEMOGRAPHIC | 07 | Indigenous group | categorical | multiple | {01-FIRST NATIONS, 02-INUIT, 03-MÉTIS, 04-NON-STATUS FIRST NATIONS, 05-OTHER INDIGENOUS, 99-PREFER NOT TO ANSWER} | Which of the following groups do you belong to [SELECT ALL THAT APPLY] |
| DEMOGRAPHIC | 07.a | Other indigenous group specification | string | single | | (specify) |
| DEMOGRAPHIC | 08 | Reserve occupation | categorical | single | {01-YES, 02-NO, 99-PREFER NOT TO ANSWER} | Do you live on reserve |
| DEMOGRAPHIC | 09 | Ethnicity of participant | categorical | multiple | {01-WHITE, 02-SOUTH ASIAN, 03-CHINESE, 04-BLACK, 05-FILIPINO, 06-LATIN AMERICAN, 07-ARAB, 08-SOUTHEAST ASIAN, 09-WEST ASIAN, 10-KOREAN, 11-JAPANESE, 12-PREFER TO SELF-DESCRIBE, 99-PREFER NOT TO ANSWER} | How would you describe your ethnicity or race [SELECT ALL THAT APPLY] If you are an Indigenous person and answered YES to question 6, select any other that apply. |
| DEMOGRAPHIC | 09.a | Other ethnicity specification | string | single | | (specify) |
| DEMOGRAPHIC | 10 | Postal code of participant's address | string | single | "\w\d\w" (three-character pattern: letter-digit-letter) | What are the first three digits of your postal code |
| DEMOGRAPHIC | 10.a | Postal code PNA | categorical | single | 99-PREFER NOT TO ANSWER | What are the first three digits of your postal code |
| DEMOGRAPHIC | 11 | Level of education of participant | categorical | single | {01-LESS THAN HIGH SCHOOL GRADUATION, 02-HIGH SCHOOL GRADUATION, "03-TRADE CERTIFICATE, VOCATIONAL SCHOOL, OR | What is the highest level of education you have completed |



| CITF Domain | Number | Label | Type | Cardinality | Value constraints | Question |
|-------------|--------|--|-------------|-------------|---|---|
| | | | | | APPRENTICESHIP TRAINING", "04-NON-UNIVERSITY CERTIFICATE OR DIPLOMA FROM A COMMUNITY COLLEGE, CEGEP", 05-UNIVERSITY BACHELOR'S DEGREE, 06-UNIVERSITY GRADUATE DEGREE (SUCH AS A MASTERS OR DOCTORATE), 99-PREFER NOT TO ANSWER} | |
| DEMOGRAPHIC | 12 | Number of residents in household | numerical | single | [1, 20] | How many people live in your household, including yourself |
| DEMOGRAPHIC | 12.a | Number of residents in household PNA | categorical | single | 99-PREFER NOT TO ANSWER | How many people live in your household, including yourself |
| DEMOGRAPHIC | 13 | Number of bedrooms in household | numerical | single | [0, 20] | How many bedrooms in your household |
| DEMOGRAPHIC | 13.a | Number of bedrooms in household PNA | categorical | single | 99-PREFER NOT TO ANSWER | How many bedrooms in your household |
| DEMOGRAPHIC | 14 | Number of bathrooms in household | numerical | single | [0, 20] | How many bathrooms in your household |
| DEMOGRAPHIC | 14.a | Number of bathrooms in household PNA | categorical | single | 99-PREFER NOT TO ANSWER | How many bathrooms in your household |
| COVID-19 | 15 | Participant's COVID-19 self-assessment | categorical | single | {00-NO, 01-YES, 99-PREFER NOT TO ANSWER} | Do you think you have had COVID-19 |
| COVID-19 | 16 | Participant's COVID-19 self-assessment: reason for suspect COVID | categorical | multiple | {01-SYMPTOM REVIEW ONLINE, 02-SYMPTOM PROFILE, "03-NASAL/THROAT TEST RESULT", 04-HEALTH CARE PROVIDER, 05-CONTACT WITH CASE, 06-OTHER (SPECIFY), 99-PREFER NOT TO ANSWER} | Why do you think you have had COVID-19 [SELECT ALL THAT APPLY] |
| COVID-19 | 16.a | Other reason for COVID self-assessment specification | string | single | | (specify) |
| COVID-19 | 17 | Participant's hospitalization due to COVID-19 | categorical | single | {00-NO, 01-YES, 99-PREFER NOT TO ANSWER} | Were you hospitalized due to COVID-19 |
| COVID-19 | 18 | Participant's previous COVID-19 testing | categorical | single | {00-NO, 01-YES, 99-PREFER NOT TO ANSWER} | Have you ever been tested for an active COVID-19 infection (using nasopharyngeal, throat swab, saliva or gargle test) |
| COVID-19 | 19 | Participant's number of previous COVID-19 tests | numerical | single | [1, 1000] | If Yes, how many times have you been tested |
| COVID-19 | 19.a | Participant's number of previous COVID-19 tests PNA | categorical | single | 99-PREFER NOT TO ANSWER | If Yes, how many times have you been tested |
| COVID-19 | 20.1 | | | | | Answer the following questions about the first test (if applicable): |
| COVID-19 | 20.1.a | Date of 1st COVID-19 test | date | single | "YYYY-MM" | What was the date of the first test |



| CITF Domain | Number | Label | Type | Cardinality | Value constraints | Question |
|-------------|--------|--|-------------|-------------|--|---|
| COVID-19 | 20.1.b | Result of 1st COVID test | categorical | single | {01-POSITIVE, 00-NEGATIVE, 98-UNKNOWN} | What was the result of the first test |
| COVID-19 | 20.1.c | Participant's COVID-19 symptom status (1st test) | categorical | single | {00-NO, 01-YES, 98-DON'T KNOW} | Did you have any symptoms of COVID when you had this test |
| COVID-19 | 20.1.d | Participant's COVID-19 symptoms (1st test) | categorical | multiple | {01-COUGH, 02-FEVER, 03-SHORTNESS OF BREATH, 04-SORE MUSCLES, 05-HEADACHE, 06-SORE THROAT, 07-DIARRHEA, 08-DECREASED SENSE OF SMELL OR TASTE, 09-OTHER (SPECIFY), 99-PREFER NOT TO ANSWER} | (specify) |
| COVID-19 | 20.1.e | Participant's COVID-19 other symptoms (1st test) | string | single | | If yes, what symptoms did you have: OTHER [SPECIFY] |
| COVID-19 | 20.2 | | | | | Answer the following questions about the second test (if applicable): |
| COVID-19 | 20.2.a | Date of 2nd COVID-19 test | date | single | "YYYY-MM" | What was the date of the second test? [IF APPLICABLE] |
| COVID-19 | 20.2.b | Result of 2nd COVID test | categorical | single | {01-POSITIVE, 00-NEGATIVE, 98-UNKNOWN} | What was the result of the second test? [IF APPLICABLE] |
| COVID-19 | 20.2.c | Participant's COVID-19 symptom status (1st test) | categorical | single | {00-NO, 01-YES, 98-DON'T KNOW} | Did you have any symptoms of COVID when you had this test |
| COVID-19 | 20.2.d | Participant's COVID-19 symptoms (1st test) | categorical | multiple | {01-COUGH, 02-FEVER, 03-SHORTNESS OF BREATH, 04-SORE MUSCLES, 05-HEADACHE, 06-SORE THROAT, 07-DIARRHEA, 08-DECREASED SENSE OF SMELL OR TASTE, 09-OTHER (SPECIFY), 99-PREFER NOT TO ANSWER} | If yes, what symptoms did you have [SELECT ALL THAT APPLY] |
| COVID-19 | 20.2.e | Participant's COVID-19 other symptoms (1st test) | string | single | | (specify) |
| COVID-19 | 20.3 | | | | | Answer the following questions about the third test (if applicable): |
| COVID-19 | 20.3.a | Date of 3rd COVID-19 test | date | single | "YYYY-MM" | What was the date of the third test? [IF APPLICABLE] |
| COVID-19 | 20.3.b | Result of 3rd COVID test | categorical | single | {01-POSITIVE, 00-NEGATIVE, 98-UNKNOWN} | What was the result of the third test? [IF APPLICABLE] |
| COVID-19 | 20.3.c | Participant's COVID-19 symptom status (1st test) | categorical | single | {00-NO, 01-YES, 98-DON'T KNOW} | Did you have any symptoms of COVID when you had this test |
| COVID-19 | 20.3.d | Participant's COVID-19 symptoms (1st test) | categorical | multiple | {01-COUGH, 02-FEVER, 03-SHORTNESS OF BREATH, 04-SORE MUSCLES, 05-HEADACHE, 06-SORE THROAT, 07-DIARRHEA, 08-DECREASED SENSE OF SMELL OR TASTE, 09-OTHER (SPECIFY), 99-PREFER NOT TO ANSWER} | If yes, what symptoms did you have [SELECT ALL THAT APPLY] |



| CITF Domain | Number | Label | Type | Cardinality | Value constraints | Question |
|-------------|--------|---|-------------|-------------|---|--|
| COVID-19 | 20.3.e | Participant's COVID-19 other symptoms (1st test) | string | single | | (specify) |
| COVID-19 | 20.4.a | Participant's other test positive status | categorical | single | {NO, YES} | Have you tested positive for COVID-19 (using nasopharyngeal, throat swab, saliva or gargle test) on a test that wasn't included in the questions above (that is, on the 4th or later test) |
| COVID-19 | 20.4.b | Other positive test date | date | single | "YYYY-MM" | If yes, what was the date the first time you tested positive? |
| EXPOSURE | 22 | Participant's travel history outside province before January 2020 | categorical | single | {01-YES, 02-NO, 99-PREFER NOT TO ANSWER} | Have you travelled outside of your home province since January 2020 |
| EXPOSURE | 22.a | Participant's travel history outside province before symptoms | categorical | single | {01-YES, 02-NO, 99-PREFER NOT TO ANSWER} | If you think you have had COVID, did you travel in the 6 months before your symptoms began? |
| EXPOSURE | 23 | Participant's travel history by geographic location | categorical | multiple | Provinces: {02-BRITISH COLUMBIA, 01-ALBERTA, 12-SASKATCHEWAN, 03-MANITOBA, 09-ONTARIO, 11-QUEBEC, 04-NEW BRUNSWICK, 07-NOVA SCOTIA, 10-PRINCE EDWARD ISLAND, 05-NEWFOUNDLAND AND LABRADOR, 08-NUNAVUT, 06-NORTHWEST TERRITORIES, 13-YUKON} | What province or country did you travel to [SELECT ALL THAT APPLY] |
| EXPOSURE | 23.a | Participant's travel history by geographic location | categorical | multiple | Countries: ISO 3166-1 (https://www.iso.org/obp/ui/#search/code/) | What province or country did you travel to [LIST COUNTRIES YOU TRAVELLED TO (separated by a comma)] |
| EXPOSURE | 24.a | Participant's work history | categorical | single | {00-NO, 01-YES, 99-PREFER NOT TO ANSWER} | Do you do either paid or unpaid work in an environment where you work in close proximity to other people |
| EXPOSURE | 24.b | Participant's occupation | categorical | multiple | {01-HOSPITAL OR HEALTH CARE FACILITY WORKER, "02-FIRST RESPONDER (PARAMEDIC, FIREFIGHTER, POLICE OFFICER)", 03-CHILDCARE WORKER, 04-CORRECTIONAL OFFICER, 05-TEACHER OR OTHER SCHOOL STAFF, 06-TRANSIT DRIVER, 07-FOOD SERVICE INDUSTRY, 08-GROCERY STORE, 09-PHARMACY, 10-HAIRDRESSER OR BARBER, 11-AESTHETICIAN, 12-FLIGHT ATTENDANT, 13-FACTORY WORKER, 14-OTHER [SPECIFY], 99-PREFER NOT TO ANSWER} | Have you been working in any of the following occupations or worksites in the past year [SELECT ALL THAT APPLY] |
| EXPOSURE | 24.c | Other occupation specification | string | single | | (specify) |
| EXPOSURE | 25.a | Participant's COVID-19 exposures before March 2020 | numerical | single | [0, 1000] | How many times have you been in gatherings of more than 10 people since March 2020 |



| CITF Domain | Number | Label | Type | Cardinality | Value constraints | Question |
|---------------------------|--------|---|-------------|-------------|---|--|
| EXPOSURE | 25.b | Participant's COVID-19 exposures before March 2020 PNA | categorical | single | 99-PREFER NOT TO ANSWER | How many times have you been in gatherings of more than 10 people since March 2020 |
| EXPOSURE | 25.c | Participant's COVID-19 exposures before symptoms | numerical | single | [0, 1000] | If you think you have had COVID, how many times were you in gatherings of more than 10 people in the 6 months before your symptoms began |
| EXPOSURE | | Participant's COVID-19 exposures before symptoms PNA | categorical | single | 99-PREFER NOT TO ANSWER | If you think you have had COVID, how many times were you in gatherings of more than 10 people in the 6 months before your symptoms began |
| HEALTH, HEALTH BEHAVIOURS | 26 | Participant's smoking status | categorical | single | {00-NO, 01-YES, 99-PREFER NOT TO ANSWER} | Do you currently smoke tobacco |
| HEALTH, HEALTH BEHAVIOURS | 27 | Frequency of smoking by participant | categorical | single | {01-LESS THAN DAILY, 02-DAILY, 00-NOT APPLICABLE} | How often do you smoke tobacco |
| HEALTH, HEALTH BEHAVIOURS | 28 | Participants current vaping status | categorical | single | {00-NO, 01-YES, 99-PREFER NOT TO ANSWER} | Do you currently use e-cigarettes (vape) |
| HEALTH, HEALTH BEHAVIOURS | 29 | Frequency of vaping by participant | categorical | single | {01-LESS THAN DAILY, 02-DAILY, 00-NOT APPLICABLE} | How often do you use e-cigarettes (vape) |
| HEALTH, HEALTH BEHAVIOURS | 30 | Participant's Comorbidities | | | | Have you been diagnosed by a physician with any of the following chronic medical conditions [SELECT ALL THAT APPLY] |
| HEALTH, HEALTH BEHAVIOURS | 30.a | Participant's Comorbidities: HYPERTENSION | categorical | single | {00-NO, 01-YES, 98-DON'T KNOW, 99-PREFER NOT TO ANSWER} | Hypertension |
| HEALTH, HEALTH BEHAVIOURS | 30.b | Participant's Comorbidities: DIABETES | categorical | single | {00-NO, 01-YES, 98-DON'T KNOW, 99-PREFER NOT TO ANSWER} | Diabetes |
| HEALTH, HEALTH BEHAVIOURS | 30.c | Participant's Comorbidities: ASTHMA | categorical | single | {00-NO, 01-YES, 98-DON'T KNOW, 99-PREFER NOT TO ANSWER} | Asthma |
| HEALTH, HEALTH BEHAVIOURS | 30.d | Participant's Comorbidities: CHRONIC LUNG DISEASE | categorical | single | {00-NO, 01-YES, 98-DON'T KNOW, 99-PREFER NOT TO ANSWER} | Chronic lung disease |
| HEALTH, HEALTH BEHAVIOURS | 30.e | Participant's Comorbidities: CHRONIC HEART DISEASE HYPERTENSION | categorical | single | {00-NO, 01-YES, 98-DON'T KNOW, 99-PREFER NOT TO ANSWER} | Chronic heart disease |
| HEALTH, HEALTH BEHAVIOURS | 30.f | Participant's Comorbidities: CHRONIC KIDNEY DISEASE | categorical | single | {00-NO, 01-YES, 98-DON'T KNOW, 99-PREFER NOT TO ANSWER} | Chronic kidney disease |



| CITF Domain | Number | Label | Type | Cardinality | Value constraints | Question |
|---------------------------|--------|--|-------------|-------------|---|---|
| HEALTH, HEALTH BEHAVIOURS | 30.g | Participant's Comorbidities: LIVER DISEASE | categorical | single | {00-NO, 01-YES, 98-DON'T KNOW, 99-PREFER NOT TO ANSWER} | Liver disease |
| HEALTH, HEALTH BEHAVIOURS | 30.h | Participant's Comorbidities: CANCER | categorical | single | {00-NO, 01-YES, 98-DON'T KNOW, 99-PREFER NOT TO ANSWER} | Cancer |
| HEALTH, HEALTH BEHAVIOURS | 30.i | Participant's Comorbidities: CHRONIC BLOOD DISORDER | categorical | single | {00-NO, 01-YES, 98-DON'T KNOW, 99-PREFER NOT TO ANSWER} | Chronic blood disorder |
| HEALTH, HEALTH BEHAVIOURS | 30.j | Participant's Comorbidities: IMMUNE SUPPRESSED | categorical | single | {00-NO, 01-YES, 98-DON'T KNOW, 99-PREFER NOT TO ANSWER} | Chronic kidney disease |
| HEALTH, HEALTH BEHAVIOURS | 30.k | Participant's Comorbidities: CHRONIC NEUROLOGICAL DISORDER | categorical | single | {00-NO, 01-YES, 98-DON'T KNOW, 99-PREFER NOT TO ANSWER} | Chronic neurological disorder |
| HEALTH, HEALTH BEHAVIOURS | 31.a | Participant's weight | numerical | single | [1, 300] | What is your current weight |
| HEALTH, HEALTH BEHAVIOURS | 31.b | Participant's weight units | categorical | single | {01-KG, 02-LBS} | (circle units) |
| HEALTH, HEALTH BEHAVIOURS | 31.c | Participant's weight PNA | categorical | single | 99-PREFER NOT TO ANSWER | What is your current weight |
| HEALTH, HEALTH BEHAVIOURS | 32.a | Participant's height (m) | numerical | single | [0.5, 2.5] | What is your current height [in metres] |
| HEALTH, HEALTH BEHAVIOURS | 32.b | Participant's height (feet) | numerical | single | [2, 8] | What is your current height [in feet and inches] |
| HEALTH, HEALTH BEHAVIOURS | 32.c | Participant's height (inches) | numerical | single | [0, 11] | What is your current height [in feet and inches] |
| HEALTH, HEALTH BEHAVIOURS | 32.d | Participant's height PNA | categorical | single | 99-PREFER NOT TO ANSWER | What is your current height |
| HEALTH, HEALTH BEHAVIOURS | 39 | Participant's access to primary care provider or physician | categorical | single | {00-NO, 01-YES, 98-DON'T KNOW, 99-PREFER NOT TO ANSWER} | Do you have a family physician, primary care provider |
| HEALTH, HEALTH BEHAVIOURS | 34.a | Participant's flu shot | categorical | single | {00-NO, 01-YES, 99-PREFER NOT TO ANSWER} | Do you usually get a flu shot |
| HEALTH, HEALTH BEHAVIOURS | 35 | Participant's COVID-19 Protective Behaviours | | | | How often have done the following since March 2020 |
| HEALTH, HEALTH BEHAVIOURS | 35.a | Participant's COVID-19 Protective Behaviours: use of mask | categorical | single | {00-NEVER, 02-RARELY, 03-OCCASSIONALLY, 04-OFTEN, 05-ALWAYS, 99-PREFER NOT TO ANSWER} | Worn a mask in public places |



| CITF Domain | Number | Label | Type | Cardinality | Value constraints | Question |
|---------------------------|--------|--|-------------|-------------|--|--|
| HEALTH, HEALTH BEHAVIOURS | 35.b | Participant's COVID-19 Protective Behaviours: physical distancing | categorical | single | {00-NEVER, 02-RARELY, 03-OCCASSIONALLY, 04-OFTEN, 05-ALWAYS, 99-PREFER NOT TO ANSWER} | Practiced physical distancing in public places |
| HEALTH, HEALTH BEHAVIOURS | 35.c | Participant's COVID-19 Protective Behaviours: crowd avoidance | categorical | single | {00-NEVER, 02-RARELY, 03-OCCASSIONALLY, 04-OFTEN, 05-ALWAYS, 99-PREFER NOT TO ANSWER} | Avoided crowded places, gatherings |
| HEALTH, HEALTH BEHAVIOURS | 35.d | Participant's COVID-19 Protective Behaviours: greeting avoidance | categorical | single | {00-NEVER, 02-RARELY, 03-OCCASSIONALLY, 04-OFTEN, 05-ALWAYS, 99-PREFER NOT TO ANSWER} | Avoided common greetings (such as handshake or hug) |
| HEALTH, HEALTH BEHAVIOURS | 35.e | Participant's COVID-19 Protective Behaviours: contact limit with vulnerable population | categorical | single | {00-NEVER, 02-RARELY, 03-OCCASSIONALLY, 04-OFTEN, 05-ALWAYS, 97-NOT APPLICABLE, 99-PREFER NOT TO ANSWER} | Limited contact with people at higher risk (e.g., an elderly relative) |
| HEALTH, HEALTH BEHAVIOURS | 35.f | Participant's COVID-19 Protective Behaviours: self isolation due to symptoms | categorical | single | {01-YES, 00-NO, 97-NOT APPLICABLE} | Self-isolated because you thought you were infected with COVID-19 |
| HEALTH, HEALTH BEHAVIOURS | 35.g | Participant's COVID-19 Protective Behaviours: preventative self quarantine | categorical | single | {01-YES, 00-NO, 97-NOT APPLICABLE} | Self-quarantined because you may have been exposed to COVID-19, but did not show symptoms |
| HEALTH, HEALTH BEHAVIOURS | 36 | Participant's COVID-19 Protective Behaviours before having COVID | | | | If you think you have had COVID, how often have you done the following in the 6 months before your symptoms began? |
| HEALTH, HEALTH BEHAVIOURS | 36.a | Participant's COVID-19 Protective Behaviours before having COVID: use of mask | categorical | single | {00-NEVER, 02-RARELY, 03-OCCASSIONALLY, 04-OFTEN, 05-ALWAYS, 97-NOT APPLICABLE, 99-PREFER NOT TO ANSWER} | Worn a mask in public places |
| HEALTH, HEALTH BEHAVIOURS | 36.b | Participant's COVID-19 Protective Behaviours before having COVID: physical distancing | categorical | single | {00-NEVER, 02-RARELY, 03-OCCASSIONALLY, 04-OFTEN, 05-ALWAYS, 97-NOT APPLICABLE, 99-PREFER NOT TO ANSWER} | Practiced physical distancing in public places |



| CITF Domain | Number | Label | Type | Cardinality | Value constraints | Question |
|---------------------------|--------|--|-------------|-------------|---|---|
| HEALTH, HEALTH BEHAVIOURS | 36.c | Participant's COVID-19 Protective Behaviours before having COVID: crowd avoidance | categorical | single | {00-NEVER, 02-RARELY, 03-OCCASSIONALLY, 04-OFTEN, 05-ALWAYS, 97-NOT APPLICABLE, 99-PREFER NOT TO ANSWER} | Avoided crowded places, gatherings |
| HEALTH, HEALTH BEHAVIOURS | 36.d | Participant's COVID-19 Protective Behaviours before having COVID: greeting avoidance | categorical | single | {00-NEVER, 02-RARELY, 03-OCCASSIONALLY, 04-OFTEN, 05-ALWAYS, 97-NOT APPLICABLE, 99-PREFER NOT TO ANSWER} | Avoided common greetings |
| HEALTH, HEALTH BEHAVIOURS | 36.e | Participant's COVID-19 Protective Behaviours before having COVID: contact limit with vulnerable population | categorical | single | {00-NEVER, 02-RARELY, 03-OCCASSIONALLY, 04-OFTEN, 05-ALWAYS, 97-NOT APPLICABLE, 99-PREFER NOT TO ANSWER} | Limited contact with people at higher risk (e.g., an elderly relative) |
| HEALTH, HEALTH BEHAVIOURS | 36.f | Participant's COVID-19 Protective Behaviours before having COVID: self isolation due to symptoms | categorical | single | {01-YES, 00-NO, 97-NOT APPLICABLE} | Self-isolated because you thought you were infected with COVID-19 |
| HEALTH, HEALTH BEHAVIOURS | 36.g | Participant's COVID-19 Protective Behaviours before having COVID: preventative self quarantine | categorical | single | {01-YES, 00-NO, 97-NOT APPLICABLE} | Self-quarantined because you may have been exposed to COVID-19, but did not show symptoms |
| VACCINE | 40 | Participant's COVID-19 Vaccine Exposure | categorical | single | {00-NO, 01-YES, 99-PREFER NOT TO ANSWER} | Have you been vaccinated against COVID-19? |
| VACCINE | 41 | Participant's COVID-19 Vaccine Exposure: dosage | categorical | single | {00-NOT APPLICABLE, 01-1, 02-2, 03-MORE THAN TWO} | How many doses of the COVID-19 vaccine have you received so far? |
| VACCINE | 42 | Participant's COVID-19 Vaccine Exposure: date of first dose | date | single | "YYYY-MM-DD" | When did you receive the first dose of the COVID-19 vaccine? |
| VACCINE | 43 | Participant's COVID-19 Vaccine Exposure: date of second dose | date | single | "YYYY-MM-DD" | When did you receive the second dose of the COVID-19 vaccine? |
| VACCINE | 44 | Participant's COVID-19 Vaccine Exposure: vaccine type | categorical | single | {01-Pfizer and BioNTech mRNA vaccine, 02-Moderna mRNA vaccine, 03-AstraZeneca Oxford Vaccine, 04-Other [Specify the vaccine], 98-Don't Know, 99-PREFER NOT TO ANSWER} | Which vaccine did you receive? |
| VACCINE | 44.a | Other vaccine specification | string | single | | (specify vaccine) |

Appendix 3

CITF Data Governance Framework

[TO BE INCLUDED BY CITF ONCE AVAILABLE]