

Supplementary files

Quantifying contact patterns: development and characteristics of the British Columbia COVID-19 population mixing patterns survey (BC-Mix)

Prince A. Adu^{1,2}, Mawuena Binka¹, Bushra Mahmood,³ Dahn Jeong^{1,2}, Terri Buller-Taylor¹, Makuza Jean Damascene^{1,2}, Sarafa Iyaniwura^{1,4}, Notice Ringa^{1,2}, Héctor A. Velásquez García^{1,2}, Stanley Wong¹, Amanda Yu¹, Sofia Bartlett^{1,6}, James Wilton¹, Mike A. Irvine^{1,7}, Michael Otterstatter^{1,2}, Naveed Z. Janjua^{1,2,8}

¹British Columbia Centre for Disease Control, Vancouver, British Columbia, Canada

²School of Population and Public Health, University of British Columbia, Vancouver, British Columbia, Canada

³Department of Medicine, University of British Columbia, Vancouver, British Columbia, Canada

⁴Department of Mathematics and Institute of Applied Mathematics, University of British Columbia, Vancouver, British Columbia, Canada

⁵Faculty of Health Sciences, Simon Fraser University, Burnaby, British Columbia, Canada

⁶Department of Pathology and Laboratory Medicine, Vancouver, British Columbia, Canada

⁷Faculty of Health Sciences, Simon Fraser University, Burnaby, British Columbia, Canada

⁸Centre for Health Evaluation & Outcome Sciences, St. Paul's Hospital, Vancouver, British Columbia, Canada

S1 Table: BC-Mix variable names and definitions

Domain	Variable	Definition	Included in follow up? (Yes/No)
Demographic information			Yes (First name, last name, E-mail only)
	Age, sex, gender, ethnicity, first name, last name, personal health number, postal code, employment status, education, occupation	Age, sex, gender, ethnicity, first name, last name, E-mail, personal health number, postal code, employment status, education, occupation of respondent	
	Number of adults living in respondent's household	How many adults live in your household?	
	Number of children living in respondent's household	How many children (under 18 years) live in your household?	
Perceptions and attitudes around COVID-19			No
	Satisfaction with provincial COVID-19 response	How satisfied are you with how COVID-19 has been managed in the province?	
	Knowledge of COVID-19	How much do you know about COVID-19?	
	Attitude to COVID-19 #1	To what extent do you agree or disagree with the following statements? - 1) COVID-19 would be a serious illness for me if I caught it 2) I think I am likely to catch COVID-19 3) If I don't follow government advice, I might spread COVID-19 to someone who is vulnerable. 4) My boss expects me to work when I am feeling unwell or sick 5) If I could not work because of COVID-19, I would still get paid 6) If I had to isolate myself for 14 days because of COVID-19, I would have enough food and supplies for 14 days 7) If I had to isolate myself for 14 days because of COVID-19... - Someone else would be able to look after my children	
	Attitude to COVID-19 #2	How effective do you think the following are at slowing the spread of COVID-19? -1) Meeting up with fewer people than normal 2) Avoiding crowded spaces 3) Staying at home for 14 days if you have ... - Severe symptoms (e.g., severe cough or high temperature).	
	Attitude to COVID-19 #3	How much, if at all, have you changed the number of face-to-face interactions with other people as a result of the COVID19 pandemic?	
	Attitude to COVID-19 #4	How well do you think you are doing at keeping physically distanced from people outside your home?	
	Attitude to COVID-19 #5	How concerned are you personally about the spread of COVID19?	
Attitude toward COVID-19 vaccine			Yes
	Vaccination status (1st or 2nd shot)	Have you received the COVID-19 vaccine (either 1st or 2nd shot)?	
	Date of 1st shot	When did you receive your 1st COVID-19 vaccine shot?	
	Vaccination status (2nd shot)	Have you received your 2nd COVID-19 vaccine shot?	

	Date of 2nd shot	When did you receive your 2nd COVID-19 vaccine shot?	
	Perceived risk	I believe I am at risk of becoming infected with COVID-19.	
	Perceived susceptibility	With the way my life is, I believe I am at a high risk of getting COVID-19 (e.g., risks at my work, recreational activities, people I live with, etc.)	
	Perceived protection 1	I believe a COVID-19 Vaccine will protect me from getting the virus.	
	Perceived protection 2	I believe a COVID-19 vaccine will decrease my chance of getting seriously ill from COVID-19.	
	Trust	I do not trust the COVID-19 vaccine.	
	Effectiveness	I am concerned about the effectiveness of the COVID-19 vaccination.	
	Safety	I am concerned about the safety of the COVID-19 vaccination.	
	Subjective norm 1	Most of the people I know are getting or have received the COVID-19 vaccine.	
	Subjective norm 2	Most of the people who are important to me (my family, relatives and/or friends) think I should get the COVID-19 vaccine.	
	Access	If I choose to get the COVID-19 vaccine, I believe it will be easy to get it.	
	Intention	I plan to get the COVID-19 vaccine.	
COVID-19 testing and results, symptoms, and health behaviours			Yes
	COVID symptoms	Since, January 2020, have you had any of the following symptoms? Check all that apply: headache, fever, stuffy nose/congestion, loss of smell or taste, new or worsening cough, difficulty breathing/shortness of breath, confusion, vomiting, chills, weakness, muscle pain, fatigue, nausea, diarrhea	
	Date of first symptoms	When did your first symptom start? (date)	
	Action following symptoms	Have you done any of the following for these symptoms? (Please check all that apply). Called family doctor/ GP, visited family doctor's /GP office, visited community/public health clinic, been admitted to hospital etc.	
	Actions before symptoms	Before these symptoms, had you been in close contact with anyone who either: (A) had any of those symptoms [fever, new or worsening cough, headache, chills, weakness, muscle pain, stuffy nose/congestion, sore throat, difficulty breathing/shortness of breath, nausea, diarrhea, fatigue, loss of smell or taste, confusion, vomiting]; OR (B) was diagnosed positive for COVID-19 within 14 days before you felt sick?	
	Isolation before symptoms	Did you isolate, or stay away from your workplace or educational facility?	
	COVID-19 test	Have you been tested for COVID-19?	
	Test results	Did you test positive for COVID-19?	

	Household symptoms	Has anyone in your household either: (A) had any of the following symptoms: fever, new or worsening cough, headache, chills, weakness, muscle pain, stuffy nose/congestion, sore throat, difficulty breathing/shortness of breath, nausea, diarrhea, fatigue, loss of smell or taste, confusion, vomiting; OR (B) tested positive for COVID-19 since January 2020?	
	First symptoms date	When did their first symptom start? If you don't remember, please make your best guess.	
	Household isolation	Has anyone in your household been told to quarantine, isolate, or limit time at their school or workplace since January 2020 because: they were sick or exposed to someone with COVID-19?	
	Adherence	Did they follow the advice and isolate, quarantine, or stay away from their workplace or educational facility?	
Activities and behaviour in and outside of the home			Yes
	Movement out of home	How many times did you leave your home (or property, apartment) yesterday?	
	Place of movement	Where did you go when you left your home? (Check all that apply) - Another person's home, a workplace, a hospital, doctor's office etc.	
	Distance	What is the farthest distance that you went from your home yesterday?	
	Means of transport	How did you travel when you left your home? (Check all that apply) - Selected Choice - I only walked (I did not use other transportation)	
	Face mask use	Did you use a face mask yesterday?	
	Face mask use location	Where did you use your face mask yesterday? (Check all that apply) - Selected Choice - Everywhere outside my house	
	Mask use duration	Take your best guess for the total amount of time you wore a mask yesterday (hours and minutes)?	
	Presence at home	In the last 3 hours, have you been in your home?	
	Handwashing	In the last 3 hours, have many times did you wash your hands with soap?	
	Hand sanitizer	In the last 3 hours, how many times did you use hand sanitizer?	
	Transport type	Yesterday, which type of public transportation did you use? (Please check all that apply) - Selected Choice - Airplane, bus, taxi etc	
	Transport duration	Yesterday, for about how long were you on public transportation?	
	PPE use during transportation	Yesterday, did you wear any of the following while on public transportation? (Please check all that apply) - Selected Choice - A face mask or other covering over your nose and mouth (e.g., face shield, bandana), gloves, etc.	
	Travel outside Canada	Have you travelled outside Canada at all since Jan 2020? And if so, to where? - Selected Choice	

	Number of contacts	Now we would like to ask you some questions about people you had in-person, face-to-face contact with yesterday. By in-person, face-to-face contact, we mean EITHER: A. An in-person two-way conversation with three or more words OR B. Physical skin-to-skin contact (for example, a handshake, hug, kiss, or contact sports). This includes family members, friends, co-workers, people you spoke to in shops, bus drivers, strangers, etc... and people of ALL ages. Please do not count people you contacted only with things like telephone, text, or online. How many people did you have in-person contact with between 5 am yesterday and 5 am today?	
	Contact identifier #1 to #10	Please add a non-identifying "nickname" for each of the people you had face-to-face or physical contact with (e.g., DG, checkout person, bus driver, child #2). This "nickname" will help you to answer questions about this contact. - 1st person label	
	Characteristics of contact #1 (gender, age, relationship to respondent)	For the people you "nicknamed" and had in-person contact with between 5am yesterday and 5am today... - I believe this person identifies as... [indicate gender, age, relationship to you, location of contact,	
	Characteristics of contact #2	Distance during contact, duration of contact, contact prior to COVID-19, PPE use during contact, distance during contact)	
	Location of contact of 10+ contacts	You said you had more than 10 in-person contacts. Where did majority of these contacts take place?	
	Occupational setting of 10+ contact	You said you had more than 10 in-person contacts. Which of these best describes your work/occupation or the other person's workplace where these contacts took place?	
	Age-group of contacts of 10+ contacts	You said you had more than 10 in-person contacts. What was the age-group for most of these contacts you interacted with?	
	Duration of 10+ contact	You said you had more than 10 in-person contacts. For most of these contacts, about how long did each contact last?	
Internet and social media use and other information			No
	Internet use	About how often do you use the internet?	
	Social media use	Thinking about the social media sites that you use; about how often do you visit or use each of the following? - Facebook, Instagram, Twitter, Snapchat, YouTube	
	Survey start date, survey end date, IP address, survey duration, response ID, recorded date, respondent's first and last name, location latitude, location longitude, follow up consent, draw consent	Survey start date, survey end date, IP address, survey duration, response ID, recorded date, respondent's first and last name, location latitude, location longitude, follow up consent, draw consent	
Derived variables			Yes

	Health Authority	The health authority of respondent. This was derived using respondents postal code or location data.	
	Quebec material index	The material deprivation involves deprivation of the goods and conveniences that are part of modern life, such as adequate housing, possession of a car, access to high-speed internet, or a neighbourhood with recreational areas. This deprivation marks the consequences of lack of material resources associated with low education, insecure job situation and insufficient income (1,2).	
	Quebec social index	Social deprivation refers to a fragile social network, starting with the family and encompassing the community. It is characterized by individuals living alone, being a lone parent and being separated, divorced, or widowed (1,2).	
	Ethnocultural composition	Ethno-cultural composition refers to the community make-up of immigrant populations, and at the British Columbia-level takes into consideration factors such as the proportion of population who self-identify as visible minority, the proportion of population that is foreign-born, the proportion of population with no knowledge of either official language (linguistic isolation), and the proportion of population who are recent immigrants (arrived in five years prior to Census). (1)	
	Situational vulnerability	Situational vulnerability speaks to variations in socio-demographic conditions in the areas of housing and education, while taking into account other demographic characteristics. The indicators in this dimension at the British Columbia-level measure concepts such as the proportion of population that identifies as Aboriginal, the proportion of population aged 25-64 without a high school diploma, the proportion of dwellings needing major repairs, the proportion of population that is low-income, and the proportion of single parent families (1).	
	Economic dependency	Economic dependency relates to reliance on the workforce, or a dependence on sources of income other than employment income. Indicators included in this dimension at the British Columbia-level measure concepts such as the proportion of population participating in labour force (aged 15 and older), the proportion of population aged 65 and older, the ratio of employment to population, and the dependency ratio (population aged 0-14 and aged 65 and older divided by population aged 15-64)(1).	
	Residential instability	Residential instability speaks to the tendency of neighbourhood inhabitants to fluctuate over time, taking into consideration both housing and familial characteristics. The indicators in this dimension at the British Columbia-level measure concepts such as the proportion of dwellings that are apartment buildings, the proportion of persons living alone,	

		the proportion of dwellings that are owned, and the proportion of the population who moved within the past five years (1).	
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References

1. Government of Canada SC. Canadian Index of Multiple Deprivation: Dataset [Internet]. 2019 [cited 2021 Jun 10]. Available from: <https://www150.statcan.gc.ca/n1/pub/45-20-0001/452000012019002-eng.htm>
2. Bureau d'information et d'études En Santé Des Populations (BIESP). Deprivation Index [Internet]. INSPQ. 2019 [cited 2021 May 27]. Available from: <https://www.inspq.qc.ca/en/deprivation/material-and-social-deprivation-index>

S2 Table. Comparison of baseline eligible and ineligible participants, frequencies and proportions

	Eligible (n=41,375)			Ineligible (n=15,702) †			
	Frequency	Percent (incl. missing)	Percent (excl. missing)	Frequency	Percent (incl. missing)	Percent (excl. missing)	
Sex							
	Male	6,823	16.5	16.5	1,697	10.8	18.6
	Female	34,552	83.5	83.5	7,442	47.4	81.4
	Missing	n/a	n/a	n/a	6,563	41.8	n/a
Age							
	18-34	4,978	12.0	12.0	1,726	11.0	17.7
	35-54	12,110	29.3	29.3	3,039	19.4	31.2
	55+	24,287	58.7	58.7	4,981	31.7	51.1
	Missing	n/a	n/a	n/a	5,956	37.9	n/a
Race/ethnicity							
	Indigenous	1,757	4.3	4.4	666	4.2	7.2
	Chinese	882	2.1	2.2	238	1.5	2.6
	White	35,026	84.7	87.5	7,439	47.4	79.9
	South Asian	606	1.5	1.5	315	2.0	3.4
	Other	1,766	4.3	4.4	649	4.1	7.0
	Missing/Unknown	1,338	3.2	n/a	6,395	40.7	n/a
Health region							
	Fraser Health	8,451	20.4	26.1	1,802	11.5	31.0
	Interior Health	6,143	14.8	19.0	1,061	6.8	18.3
	Northern Island	1,825	4.4	5.6	312	2.0	5.4
	Vancouver Coastal	7,315	17.7	22.6	1,329	8.5	22.9
	Vancouver Island	8,640	20.9	26.7	1,300	8.3	22.4
	Missing	9,001	21.8	n/a	9,898	63.0	n/a
Education							
	Below high school	807	2.0	2.5	41	0.3	7.1
	Below bachelor	16,928	40.9	51.7	245	1.6	42.5
	University degree	15,029	36.3	45.9	290	1.8	50.3
	Missing/Unknown	8,611	20.8	n/a	15,126	96.3	n/a
Employment status							
	Employed full-time (30 hours or more/week)	10,654	25.7	32.0	210	1.2	31.6
	Employed part-time	2,993	7.2	9.0	75	0.4	11.3
	Self-employed	2,704	6.5	8.1	64	0.4	9.6

	Unemployed but looking for a job	952	2.3	2.9	24	0.1	3.6
	Unemployed and not looking for a job	406	1.0	1.2	10	0.1	1.5
	Full-time parent, homemaker	879	2.1	2.6	10	0.1	1.5
	Retired	12,757	30.8	38.3	87	0.5	13.1
	Student/Pupil	566	1.4	1.7	67	0.4	10.1
	Long-term sick or disabled	968	2.3	2.9	31	0.2	4.7
	Prefer not to answer	424	1.0	1.3	87	0.5	13.1
	Missing/Unknown	8,072	19.5	n/a	15,037	84.8	n/a
Quebec Material Deprivation Index							
	1 (Privileged)	6,407	15.5	22.3	690	4.4	13.8
	2	6,475	15.6	22.5	1,041	6.6	20.9
	3	6,972	16.9	24.2	1,538	9.8	30.8
	4	4,822	11.7	16.8	751	4.8	15.1
	5 (Deprived)	4,085	9.9	14.2	969	6.2	19.4
	Missing	12,614	30.5	n/a	10,713	68.2	n/a
Quebec Social Deprivation Index							
	1 (Privileged)	4,932	11.9	17.2	1,018	6.5	20.4
	2	4,756	11.5	16.5	696	4.4	14.0
	3	6,311	15.3	21.9	1,275	8.1	25.6
	4	5,932	14.3	20.6	897	5.7	18.0
	5 (Deprived)	6,830	16.5	23.8	1,103	7.0	22.1
	Missing	12,614	30.5	n/a	10,713	68.2	n/a
Follow up consent							
	Yes	20,633	49.9	63.8	245	1.6	39.6
	No	11,689	28.3	36.2	373	2.4	60.4
	Missing	9,053	21.9	n/a	15,084	96.1	n/a
Data linkage consent							
	Yes	7,290	17.6	27.3	95	0.6	17.3
	No	19,467	47.1	72.8	454	2.9	82.7
	Missing	14,618	35.3	n/a	15,153	96.5	n/a

‡Does not include 4,106 duplicates

S3 Table. Participant profile of BC-Mix follow up surveys: frequencies and proportions (%)

	Follow up #1 (n=10,993)	Follow up #2 (n=8,164)	Follow up #3 (n=6,375)	Follow up #4 (n=4,981)	Follow up #5 (n=3,891)	Follow up #6 (n=3,184)	Follow up #7 (n=2,417)	Follow up #8 (n=1,760)
Complete responses	10619 (96.6)	7935 (97.2)	6265 (98.3)	4906 (98.5)	3836 (98.6)	3137 (98.5)	2397(99.2)	1733 (98.5)
Sex								
Male	1590 (14.5)	1115 (13.7)	843 (13.2)	646 (13.0)	495 (12.7)	404 (12.17)	312 (12.9)	217 (12.3)
Female	9403 (85.5)	7049 (86.3)	5532 (86.8)	4335 (87.0)	3396 (87.3)	2780 (87.3)	2105 (87.1)	1543 (87.7)
Age								
18-34	1128 (10.3)	731 (9.0)	497 (7.8)	363 (7.3)	257 (6.6)	199 (6.3)	152 (6.3)	109 (6.2)
35-54	3013 (27.4)	2105 (25.8)	1533 (24.1)	1127 (22.6)	846 (21.7)	662 (20.8)	495 (20.5)	343 (19.5)
55+	6852 (62.3)	5328 (65.3)	4345 (68.2)	3491 (70.1)	2788 (71.7)	2323 (73.0)	1770 (73.2)	1308 (74.3)
Race/ethnicity								
Indigenous	342 (3.1)	229 (2.8)	162 (2.5)	130 (2.6)	91 (2.3)	71 (2.2)	54 (2.2)	38 (2.2)
Chinese	199 (1.8)	124 (1.5)	98 (1.5)	66 (1.3)	48 (1.2)	39 (1.2)	25 (1.0)	16 (0.9)
White	9870 (89.8)	7415 (90.8)	5833 (91.5)	4586 (92.1)	3602 (92.6)	2959 (92.9)	2254 (93.3)	1642 (93.3)
South Asian	79 (0.7)	39 (0.5)	30 (0.5)	20 (0.4)	15 (0.4)	14 (0.4)	12 (0.5)	12 (0.7)
Other	316 (2.9)	229 (2.8)	154 (2.4)	108 (2.2)	86 (2.2)	63 (2.0)	45 (1.9)	35 (2.0)
Missing/Unknown	187(1.7)	128 (1.6)	98 (1.5)	71 (1.4)	49 (1.3)	38 (1.2)	27 (1.1)	17 (1.0)
Health region								
Fraser Health	2748 (25.0)	2039 (25.0)	1590 (24.9)	1243 (25.0)	964 (24.8)	792 (24.9)	613 (25.4)	462 (26.3)
Interior Health	1926 (17.5)	1435 (17.6)	1156 (18.1)	907 (18.2)	703 (18.1)	579 (18.2)	432 (17.9)	317 (18.0)
Northern Island	506 (4.6)	374 (4.6)	280 (4.4)	212 (4.3)	162 (4.2)	116 (3.4)	88 (3.6)	63 (3.6)
Vancouver Coastal	2706 (24.6)	1992 (24.4)	1540 (24.2)	1178 (23.7)	932 (24.0)	758 (23.8)	577 (23.9)	403 (22.9)
Vancouver Island	3059 (27.8)	2303 (28.2)	1794 (28.1)	1430 (28.7)	1122 (28.8)	934 (29.3)	703 (29.1)	513 (29.2)
Missing/Unknown	48 (0.4)	21 (0.3)	15 (0.2)	11 (0.2)	8 (0.2)	5 (0.2)	4 (0.2)	2 (0.1)
Education								
Below high school	173 (1.5)	123 (1.5)	89 (1.4)	68 (1.4)	51 (1.3)	37 (1.2)	26 (1.1)	16 (0.9)
Below bachelor	5236 (47.6)	3835 (47.0)	2979 (46.7)	2303 (46.2)	1771 (45.5)	1453 (45.6)	1108 (45.8)	802 (45.6)

	Follow up #1 (n=10,993)	Follow up #2 (n=8,164)	Follow up #3 (n=6,375)	Follow up #4 (n=4,981)	Follow up #5 (n=3,891)	Follow up #6 (n=3,184)	Follow up #7 (n=2,417)	Follow up #8 (n=1,760)
University degree	5529 (50.3)	4169 (51.1)	3283 (51.5)	2594 (52.1)	2057 (52.9)	1683 (52.9)	1278 (52.9)	939 (53.4)
Missing/Unknown	55 (0.5)	37 (0.5)	24 (0.4)	16 (0.3)	12 (0.3)	11 (0.4)	5 (0.2)	31 (0.2)
Quebec Material Deprivation Index								
1 (Privileged)	1547 (14.1)	1072 (13.75)	896 (14.1)	720 (14.5)	569 (14.6)	435 (13.7)	344 (14.2)	253 (14.4)
2	2078 (18.9)	1547 (19.0)	1198 (18.8)	1008 (20.2)	806 (20.7)	665 (20.9)	500 (20.7)	366 (20.8)
3	2994 (27.3)	2184 (26.8)	1674 (26.3)	1273 (25.6)	973 (25.0)	835 (26.2)	642 (26.6)	450 (25.6)
4	1277 (11.6)	942 (11.64)	748 (11.7)	580 (11.6)	475 (12.2)	379 (11.9)	285 (11.8)	215 (12.2)
5 (Deprived)	1668 (15.2)	1290 (15.8)	1033 (16.2)	728 (15.7)	609 (15.7)	504 (15.8)	375 (15.5)	278 (15.8)
Missing	1429 (13.0)	1069 (13.1)	826 (13.0)	616 (12.4)	459 (11.8)	366 (11.5)	271 (11.2)	198 (11.3)
Quebec Social Deprivation Index								
1 (Privileged)	2188 (19.9)	1641 (20.1)	1286 (20.2)	1063 (21.3)	830 (20.3)	658 (20.7)	509 (21.1)	368 (20.9)
2	1441 (13.1)	1051 (12.9)	787 (12.4)	603 (12.1)	480 (12.3)	411 (12.9)	314 (13.0)	225 (12.8)
3	2478 (22.5)	1831 (22.4)	1480 (23.2)	1148 (23.1)	922 (23.7)	769 (24.2)	574 (23.8)	419 (23.8)
4	1601 (14.6)	1236 (15.1)	945 (14.8)	743 (14.9)	578 (14.9)	488 (15.3)	370 (15.3)	290 (16.5)
5 (Deprived)	1856 (16.9)	1336 (16.4)	1051 (16.5)	808 (16.2)	622 (16.0)	392 (15.5)	379 (15.7)	260 (14.8)
Missing/Unknown	1429 (13)	1069 (13.1)	826 (13.0)	616 (12.4)	459 (11.8)	492 (11.5)	271 (11.2)	198 (11.3)
Follow up consent								
Yes	10357 (94.2)	7793 (95.5)	6182 (97.0)	4857 (97.5)	3789 (97.4)	3106 (97.6)	2380 (98.5)	1714 (97.4)
No	262 (2.4)	142 (1.7)	83 (1.3)	49 (1.0)	47 (1.2)	31 (1.0)	17 (0.7)	19 (1.1)
Missing	374 (3.4)	229 (2.8)	110 (1.7)	75 (1.5)	55 (1.4)	47 (1.5)	20 (0.8)	27 (1.5)

S3 Table. Participant profile of BC-Mix follow up surveys: frequencies and proportions (%) [continued]

		Follow up#9 (n=1,200)	Follow up #10 (n=488)
Complete responses		1,178 (98.2)	483 (99.0)
Sex			
	Male	136 (11.3)	54 (11.1)
	Female	1064 (88.7)	434 (88.9)
Age			
	18-34	70 (5.8)	30 (6.2)
	35-54	226 (18.8)	87 (17.8)
	55+	904 (75.3)	371 (76.0)
Race/ethnicity			
	Aboriginal	49 (4.1)	18 (3.7)
	Chinese	12 (1.0)	8 (1.6)
	Not a visible minority (White)	1117 (93.1)	453 (92.8)
	South Asian	8 (0.7)	3 (0.6)
	Other	0 (0)	0 (0)
	Missing/Unknown	14 (1.2)	6 (1.2)
Health region			
	Interior Health	223 (18.6)	88 (18.0)
	Fraser Health	319 (26.6)	129 (26.4)
	Vancouver Coastal	268 (22.3)	106 (21.7)
	Vancouver Island	355 (29.6)	152 (31.2)
	Northern Island	33 (2.7)	12 (2.5)
	Missing/Unknown	2 (0.2)	1 (0.2)
Education			
	Below high school	7 (0.6)	3 (0.6)

	Below bachelor	549 (45.7)	205 (42.0)
	University degree	643 (53.6)	279 (57.2)
	Missing/Unknown	1 (0.1)	1 (0.2)
Quebec Material Deprivation Index			
	1 (Privileged)	166 (13.8)	71 (14.6)
	2	257 (21.4)	94 (19.3)
	3	296 (24.7)	125 (25.6)
	4	142 (11.8)	50 (10.3)
	5 (Deprived)	192 (16.0)	85 (17.4)
	Missing	147 (12.3)	63 (12.9)
Quebec Social Deprivation Index			
	1 (Privileged)	253 (21.1)	88 (12.9)
	2	165 (13.8)	63 (12.9)
	3	276 (23.0)	123 (25.2)
	4	192 (16.0)	80 (16.4)
	5 (Deprived)	167 (13.9)	71 (14.6)
	Missing	147 (12.2)	63 (12.9)
Follow up consent			
	Yes	1170 (97.5)	475 (97.3)
	No	8 (0.7)	8 (1.6)
	Missing	22 (1.8)	5 (1.0)

S4 Table. BC-Mix eligible sample (baseline) by month recruited

Month	Number of eligible (n=41,375)	% of sample
September, 2020	6,488	15.68
October, 2020	3,516	8.5
November, 2020	1,653	4
December, 2020	3,335	8.1
January, 2021	2,460	6
February, 2021	994	2.4
March, 2021	1,353	3.3
April, 2021	2,507	6.1
May, 2021	4,696	11.4
June, 2021	8,238	19.9
July, 2021	6,135	14.8

S5 Table. Comparison of participant eligibility across survey rounds

	Baseline survey	Follow up#1	Follow up #2	Follow up #3	Follow up #4	Follow up #5	Follow up#6	Follow up#7	Follow up#8	Follow up#9	Follow up#10
Total (eligible+ineligible)	57,077	11,677	8,624	6,657	5,173	4,037	3,309	2,503	1,815	1,234	513
Eligible	41,375	10,993	8,164	6,375	4,981	3,891	3,184	2,417	1,760	1,200	488
% eligible	72.5	94.1	94.7	95.8	96.3	96.4	96.2	96.6	97.0	97.2	95.1

S6 Table. Participant profile of BC-Mix baseline data (n=33, 650), using at least 67% survey completion threshold

		Survey			
		Un-weighted frequency	Un-weighted %	Weighted frequency	Weighted %
Sex					
	Male	5,362	15.9	16680	49.4
	Female	28, 288	84.1	17058	50.6
	Missing				
Age					
	18-34	3,957	11.8	9,063	26.9
	35-54	9,674	28.8	11,111	32.9
	55+	20,019	59.5	13564	40.2
Race/ethnicity					
	Indigenous	1,394	4.1	1,718	5.1
	Chinese	711	2.1	3,601	10.7
	White	28,728	85.4	21,216	62.9
	South Asian	405	1.2	2,478	7.3
	Other	1,385	4.1	3,429	10.2
	Missing/Unknown	1,027	3.1	1300	3.9
Health region					
	Fraser Health	8038	26.1	11327	33.6
	Interior Health	5,806	118.9	5023	14.9
	Northern Island	1735	5.6	1732	5.1

		Survey			
		Un-weighted frequency	Un-weighted %	Weighted frequency	Weighted %
Education	Vancouver Coastal	6993	22.7	7739	22.9
	Vancouver Island	8234	26.7	5308	15.7
	Missing/Unknown	2844	n/a	2610	7.7
	Below high school	807	2.4	1,096	3.2
Employment status	Below bachelor	16,928	50.3	15,176	45.0
	University degree	15,029	44.7	16,273	48.2
	Missing/Unknown	886	2.6	1,193	3.1
	Employed full-time (30 hours or more/week)	10,654	32.0	1308	40.8
	Employed part-time	2,993	9.0	3,131	9.4
	Self-employed	2,704	8.1	3,013	9.0
	Unemployed but looking for a job	952	2.9	1,522	4.6
	Unemployed and not looking for a job	406	1.2	511	1.5
Employment status	Full-time parent, homemaker	879	2.6	740	2.2
	Retired	12,757	38.3	8,096	24.3
	Student/Pupil	566	1.7	1,197	3.6

		Survey			
		Un-weighted frequency	Un-weighted %	Weighted frequency	Weighted %
Material Deprivation Index	Long-term sick or disabled	968	2.9	914	2.7
	Prefer not to answer	424	1.3	620	1.9
	Missing/Unknown	347	n/a	n/a	n/a
	1 (Privileged)	6,219	22.8	6,106	22.1
	2	6,199	22.6	5,850	21.1
	3	6,565	24.0	5935	21.4
	4	4,616	16.8	5,179	18.7
Follow up consent	5 (Deprived)	3,810	13.9	4,612	16.7
	Missing	6,241	n/a	n/a	n/a
	Yes	20,633	68.8	19,051	58.9
	No	11,689	36.1	13,275	41.1
Data linkage consent	Missing	1,328	n/a	n/a	n/a
	Yes	7,290	27.3	7,318	20.4
	No	19,467	72.8	20,362	73.6
	Missing	6,893	n/a	n/a	n/a

S7 Table. Comparison of participants with 100% survey completion versus those less than 100% completion (baseline data)

		100% completion (n=26, 757)		< 100% completion (n=14,618)	
		Un-weighted Frequency	Un-weighted %	Un-weighted Frequency	Un-weighted %
Sex					
	Male	4,407	16.5	2,416	16.5
	Female	22,350	83.5	12,202	83.5
Age					
	18-34	3,383	12.6	1,595	10.9
	35-54	8,056	30.1	4,054	27.7
	55+	15,318	57.3	8,969	61.4
Race/ethnicity					
	Indigenous	1,072	4.1	685	4.7
	Chinese	627	2.3	255	1.7
	White	22,842	85.4	12,184	83.4
	South Asian	305	1.1	301	2.1
	Other	1,123	4.2	643	4.4
	Missing/Unknown	788	3.0	550	3.8
Health region					
	Fraser Health	6,928	26.1	1,523	26.3
	Interior Health	4,923	18.5	1,220	21.1
	Northern Island	1,465	5.5	360	6.2
	Vancouver Coastal	6,175	23.2	1,140	19.7
	Vancouver Island	7,095	26.7	1,545	26.7

	Missing/Unknown	171	n/a	8,830	n/a
Education	Below high school	585	2.2	222	1.5
	Below bachelor	13,155	49.2	3,773	25.8
	University degree	12,634	47.2	2,395	16.4
	Missing/Unknown	383	1.4	8,228	56.3
Follow up consent	Yes	16,404	61.3	4,229	76.0
	No	10,353	38.7	1,336	24.0
	Missing	n/a	n/a	9,053	n/a