

Title: The impact of post-discharge calls on emergency department visits and unplanned readmission rates in patients with high LACE scores

Study Protocol

Version 5

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Table of Contents

Introduction.....	3
Research Questions.....	3
Study Design	4
Outcomes.....	4
Study Population	4
Sample Size and Power Calculations	5
Randomization	5
Consent	6
Intervention.....	6
Data Collection	7
Analysis Plan.....	8
Study Length and Timeline.....	8
Knowledge Translation	8
Research Study Workflow.....	10
Appendix A. Semi-structured Telephone Script	11
Appendix D. Patient Experience Survey	19
Intervention Group (<i>received a post-discharge call from FHVC</i>)	19
Control Group (<i>did NOT received a post-discharge call from FHVC</i>).....	23

Introduction

High rates of emergency department (ED) visits and readmissions within 30 days of discharge can indicate suboptimal health care system performance (e.g., poor quality care pre-discharge or a gap in the post-discharge care coordination). Readmissions within 30 days are generally considered unplanned and avoidable, and are associated with poor patient satisfaction, increased risks for morbidity and mortality; and, are costly for the health care system. While not all ED visits and readmissions can be prevented, the rate can be reduced through better follow-up and care coordination after discharge. The post-discharge period is a vulnerable time for patients as they transition from hospital to home, and preventable adverse events can result from gaps in patients' understanding of their post-discharge medications, diagnosis, and follow-up appointments. A telephone call to connect with patients following discharge can help reinforce discharge plans and troubleshoot problems patients may face after discharge.

To support patients after their discharge, Fraser Health Virtual Care (FHVC) launched a new service to call patients, at high-risk of readmission, at home within 24-72 hours of discharge. An overarching assumption of post-discharge calls is that patients at higher risk of adverse post-discharge outcomes (e.g., ED visits, readmissions) would benefit more than those at lower risk. One measure of risk is the LACE index. The LACE index is a validated tool to quantify a patient's risk of readmission within 30 days of discharge, with a higher score indicating higher risk, and accounts for Length of stay, Acuity, Comorbidities, and Emergency department visits before admission. One study found patients with a LACE score of 10 or higher were 2.5 times more likely than patients not considered high-risk to experience an unplanned readmission within 30 days of discharge. This trend is corroborated with Fraser Health (FH) data indicating patients with a LACE score of 10 or higher are 1.8 times more likely to visit an ED within 30 days than patients not considered high-risk. Fraser Health data also indicates patients with a LACE score 9 and lower, and are 45 and older in age, are also at higher risk of visiting the ED within 30 days of discharge.

However, although there is considerable research addressing post-discharge calls, the link between post-discharge calls and reduced ED visits and unplanned readmissions is still not clear. A 2006 Cochrane review attributed this to insufficient design quality, and nothing changed as the same conclusion was reached in a 2019 Journal of Clinical Nursing systematic review.

Research Questions

Primary research questions:

1. Compared to patients who receive standard care (no follow-up call), what is the effect of a registered nurse conducting a follow-up call, 48 hours post-discharge, for patients at high-risk of visiting the ED within 30 days of discharge on: (1) ED visits; (2) unplanned hospital readmissions, and (3) primary care access?
2. What is the patient-reported experience with a post-discharge telephone call in speaking with a registered nurse to resolve their health questions or concerns, and do experiences differ based on socioeconomic status such as age, gender, race, and income?

Secondary research questions:

3. Compared to patients who receive standard care (no follow-up call) and to patients who receive a follow-up call from a registered nurse, what is the effect of receiving a SMS text message 48 hours post-discharge for patients at high-risk of visiting the ED within 30 days of discharge on: (1) ED visits; 2) unplanned hospital readmissions, and (3) primary care access?
4. How does the effect of a follow-up call or SMS text message post-discharge differ based on demographic characteristics such as age, gender, and location, or care characteristics such as length of stay, discharging hospital, and the day of the week the patient was discharged?

Study Design

This is a single-centre pragmatic randomized controlled trial with three study arms, and the primary objective to examine the effectiveness of a post-discharge call on 30-day ED visits. Participants will be randomized into three groups:

- intervention group *one* will receive a call from FHVC 48 hours post-discharge
- intervention group *two* will receive a SMS text message 48 hours post-discharge
- The control group will not receive a call or a text

Participants will be followed from the time they receive a post-discharge call/text to 30 days after discharge. Outcome data will be compared between the groups to determine if there is a difference.

A smaller subset of patients will be randomized into intervention group two as the objective is not to evaluate effectiveness but to accommodate an evaluation of a new service that FHVC is piloting.

Outcomes

Primary	ED visits	The number of ED visits within 30 days of discharge	Chart review
Secondary	ED visits	The number of ED visits within 7 days of discharge	Chart review
	Unplanned readmissions	The proportion of patients that are readmitted to hospital within 7 and 30 days of discharge (not scheduled readmissions)	Chart review
	Length of stay	The number of days that patients spend in hospital after being readmitted	Chart review
	Primary care access	The proportion of patients that visited their family physician within 30 days of discharge	Patient survey
	Patient experience	Patient-reported experience with their post-discharge call or discharge	Patient survey

Study Population

Eligible patients will be identified via a custom iTracker report:

Inclusion criteria	Exclusion criteria
a) Adult patients (≥ 18 years old) b) LACE score ≥ 10	a) active Home Health patient

c) LACE score ≤ 9 AND aged 45 years and older	b) discharged from an inpatient Psychiatric unit
d) Discharged to home	c) active Community Respiratory Services patient
e) Discharge to Assisted Living	
f) Discharged from hospital inpatient care	

Participants will be further excluded if it is discovered they were:

- Seen in follow-up before the post-discharge call
- Readmitted or in the ED before the post-discharge call
- Received a call from their primary care provider or other registered nurse
- Deceased
- Discharged to hospice
- Received nursing support from another service
- Unable to receive the post-discharge call from FHVC

Sample Size and Power Calculations

The sample size required was estimated using Fraser Health specific data, and was calculated for the primary research question. The number of ED visits 30 days after discharge was determined for the study population as outlined in the previous section. The one difference is that this calculation did not include adult patients with a LACE score ≤ 9 and aged 45 years and older. This is because this criterion was recently added and not enough time has elapsed to allow for sufficient data to accumulate, and the estimate using only adult patients with a LACE score ≥ 10 is thought to be sufficient as both populations both are at higher risk of visiting the ED within 30 days of discharge. Prior to FHVC conducting post-discharge calls, the average number of ED visits was found to be 0.73 with a standard deviation of 2.08 (data from June 1, 2020 – May 31, 2021). After FHVC launched its new service to conduct post-discharge calls, the average number of ED visits was found to be 0.59 (data from July 1, 2021 – February 17, 2022). Using these results to estimate a sample size with an alpha of 0.05 and 80% power, it was calculated that a sample size of 6,930 (3,465 for each study group) is needed. There are approx. 60 eligible patients per day, requiring 2 months (or 58 days) for patient enrollment with a 1:1 enrollment rate to reach the required sample size.

For the secondary research question, a sample size was not required as it is similar to a pilot study to assess trends and if the trends prove to be significant, a more rigorous study will be conducted.

Randomization

Simple random sampling will be used to determine which patients are allocated to each of the three study groups. Each morning, a study team member will download the iTracker report and randomly sort the patients into the intervention and control groups using the RAND function in Excel. The names of 70 patients within intervention group one will be given to the FHVC nurses for them to conduct post-discharge calls. The names of the 30 patients within intervention group two will be given to the FHVC Patient Care Coordinator for them to send a SMS to. The rest of the patients on the iTracker report will be allocated to the control group.

Consent

We are applying for a waiver of consent. FHVC has been conducting post-discharge calls since June 2021. Additionally, within Fraser Health, although calling patients post-discharge is not standard of care, a few acute inpatient units across Fraser Health do conduct similar calls for their own patients. As a result, the intervention is in active use, but its impact is unclear, thus demonstrating equipoise. The care to be received by the intervention and control group is within the scope of acceptable practice, and poses minimal risk to patients whether they participate in our study or not, and is unlikely to adversely affect the welfare of participants whether they participate as part of the intervention or control group. Eligible patients are identified via a custom iTracker report that automatically pulls patient names and their information from Fraser Health's clinical information systems. Patients on this report have no idea they will be receiving a call from FHVC after discharge. An informed consent process would involve education on the risk of readmission targeted by the intervention. This could bias study results by prompting patient action to mitigate the risk and consequently make the results, for an important clinical question, uninterpretable.

Informed consent will be obtained before the patient experience survey is administered (Appendix C). A research assistant will phone participants in both the intervention and control group, 30 days after their discharge, to ask if they would be willing to answer a patient experience survey about their discharge from hospital.

Intervention

Patients in the control group will receive standard care (i.e., will NOT receive a phone call from FHVC). Patients in intervention group one will receive non-standard care, receiving a phone call from an FHVC registered nurse (RN) 48 hours after their discharge. The post-discharge call will take approx. 10 minutes. A semi-structured script will be used to guide a verbal clinical assessment. The call will focus on assessing the patient's knowledge of their discharge diagnosis, discharge medication plan, follow-up appointments and actualization of anticipated discharge supports (i.e., acquisition of medical equipment, visiting health assistance and medication procurement). Patients will be asked to teach back their discharge plan. If any knowledge or care transition gaps are identified, the FHVC RN will provide re-education, and determine if additional discharge plan supports are needed. A focused review of symptoms will be conducted to identify conditions that could benefit from early attention including potential medication side effect, care plan failure or new symptoms requiring provider evaluation. Depending on the issue identified, the FHVC RN will provide advice for the patient to engage their discharging provider, primary care doctor, pharmacist or follow-up provider in addressing their medical needs. An outline of the semi-structured script can be found in Appendix A.

The nurses practice within their scope and do not provide answers for specific questions or concerns regarding a patient's diagnosis. If patients have questions specific to their diagnoses, the nurses will advise the patient to follow up with their discharging provider, primary care provider, or other appropriate service provider (e.g., pharmacist).

For patients that do not speak English, interpreter services will be used.

Patients in intervention group two will receive non-standard care, receiving a SMS text message from FHVC 48 hours after their discharge. The text messages are sent through the platform, WeITel. FHVC has

received privacy and security approval to pilot WelTel. The content of the SMS text messages from FHVC to the patients, and the AI-enabled text algorithm can be found in Appendix B.

Data Collection

For participants in both study groups, their name, PHN, phone number, age, LACE score, discharging hospital, and reason for admission will be recorded in an Excel log on the secure network M:drive. These pieces of personal information are already collected as part of FHVC providing their regular clinical service. The only additional pieces of personal information collected as part of the research study is whether a problem was identified and the type of problem identified. During the post-discharge call, the FHVC RN will note if a problem was identified for patients in the intervention group. At the end of the day, the research assistance will go into the patients' charts for those that had a problem identified to record the type of problem (e.g., didn't receive written discharge instructions, didn't fill prescriptions, unclear on dressing changes, etc.). The data collection sheet can be found in Appendix C.

At the end of enrollment, the Systems Optimization team will be given access to this Excel log (which has the participants' names and PHNs) for data extraction purposes. Using the PHNs, Systems Optimization will pull the following pieces of data: 1) if and the number of times the participant visited the ED, 2) if the patient experienced an unplanned readmission, and 3) if the participant was readmitted, their length of stay (LOS). To account of variables in the data analysis, Systems Optimization will also be asked to pull the following data: 1) the LOS of the initial hospitalization, 2) the city in which the patient resides, 3) the day of the week the patient was discharged, and 4) Indigenous status (Systems Optimization is applying for approval for us to include this in our dataset). Data will be pulled for the following timeframes: within 7 and 30 days after discharge. Systems Optimization will share the Excel log with these additional data points meaning Systems Optimization will share back row-level data and the data will not be de-identified when the data is shared back with the research team. Patient identifiers collected (i.e., patient name, PHN, and telephone number) will be deleted prior to data analyses.

Participants in both study groups will receive a phone call 30 days after discharge to understand patient-reported experiences. The patient experience survey can be found in Appendix D. Survey data will be anonymous and not linked to participants. Survey answers will be collected through Qualtrics, an online survey platform that has been approved for use by Fraser Health. The research assistant and patient partners will assist with conducting the patient experience surveys over telephone. The patient partners will come to Central City to use one of the landlines. The patient partners will be given a paper list of patient names and their telephone numbers. The patient partners will mark on the patient list, who they called and who consented to participate in the patient experience survey. The patient partners will give the marked paper list to the research assistant to transcribe the marks electronically into an Excel log to keep track of consent. The paper list will be securely shredded at the end of the day. To record the survey answers, the patient partners will be given paper printouts of the survey and will mark the answers on the paper printout. The patient partners will give the completed surveys to the research assistant to transcribe the survey answers into the electronic survey collection databased Qualtrics. Qualtrics has been approved by Fraser Health as a survey collection and data storage application. The completed paper surveys will be securely shredded at the end of the day.

Analysis Plan

The primary outcome is continuous (e.g., number of visits) and the secondary outcomes are binary (e.g., readmission: yes/no; saw a primary care provider: yes/no). All variables will be summarized using descriptive statistics. We will compare baseline characteristics using independent t-test or chi-square statistic, as appropriate. The primary outcome measures of number of visits will be explored using poisson regression and multivariate logistic regression while controlling for demographic and clinical characteristics. All analysis will be completed using two-tailed test and significance is determined at $p < 0.05$.

Systems Optimization is sharing row-level data so that we can conduct subgroup analysis. Subgroup analysis will be calculated to determine if age, gender, LACE score, reason for admission, and/or discharging hospital has an impact on ED visits, readmission rates, and if a problem was identified through the post-discharge call. For survey answers, subgroup analysis will also be conducted to observe if patient experiences differ based on socioeconomic status such as age, gender, race, and income (as per the research question). Additional data such as the LOS of the initial hospitalization, the city in which the patient resides, the discharging hospital, and the day of the week the patient was discharged will be used to control and minimize variability.

Study Length and Timeline

We will start drafting the ethics application late January 2022 to ensure there is time to review and revise the application before the deadline in April 2022. After ethical approval is obtained, study enrollment will begin in May 2022. Five months will be needed for enrollment, followed by another three months for data collection. With two months needed for data extraction and analysis, all research activities, except knowledge translation activities, will be complete within a year. The knowledge exchange activities are estimated to take up to a year. This will allow time to develop and draft presentations and infographics, liaise with internal groups to schedule presentations, and attend conferences.

Knowledge Translation

Within FH, our priority is to share the results with physicians, acute sites, Access & Flow teams, and senior leaders. Results will be disseminated through presentations at regional-, program-, and site-level meetings. For example, for physicians, we will present the study results at the Health Authority Medical Advisory Committee (HAMAC), for Access & Flow, we will present at the Transforming Together talks, and at the site-level, we will present at each acute site's Health Services Quality Operational Management Committee (HQOMC) meetings. Results will inform the resourcing and delivery of this service within FH. In addition, there is an opportunity to address gaps identified through the patient experience survey on current discharge processes to improve patient experiences and outcomes.

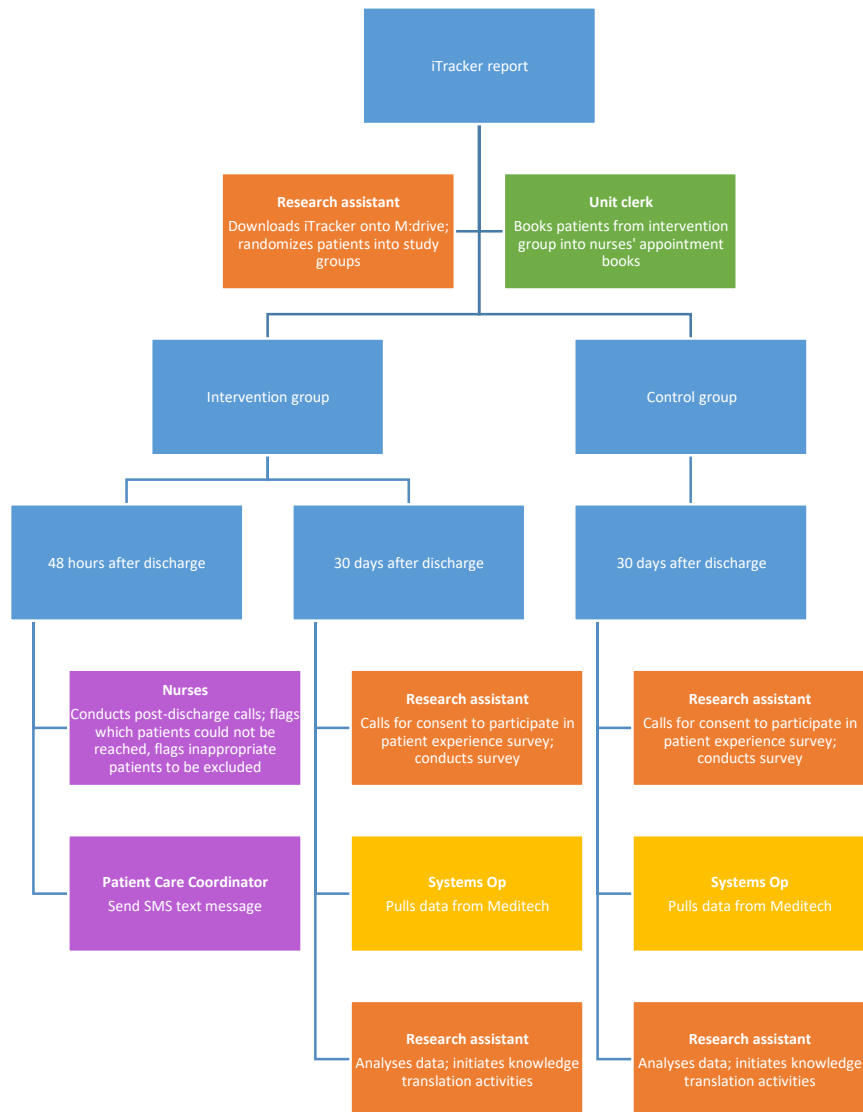
External to FH, our priority is to share the results with the Divisions of Family Practice, FH residents and patients, study participants, at provincial health conferences (e.g., the BC Patient Safety and Quality Council [BCPSQC] Quality Forum Conference and the Strategy for Patient-Oriented Research [SPOR] Putting Patients First Conference), and the academic community. We plan to update our external FH webpage and internal Pulse page with the study results.

Audience	Tactic
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Physicians	Presentation (HAMAC) Report & Infographic (Pulse page; external webpage)
Acute sites	Presentation (HQOMC) Report & Infographic (Pulse page)
Access & Flow teams	Presentation (Transforming Together talks) Report & Infographic (Pulse page)
Senior leaders	Presentation Report & Infographic (Pulse page; Management Centre; status report; SBAR; business case)
Divisions of Family Practice	Presentation (with each Division; Interdivision Strategic Council) Report & Infographic (external webpage)
FH residents & patients	FH Patient & Family Advisory Council Report & Infographic (external webpage)
Study participants	Report & Infographic (external webpage) Directly via email
Health care & academic community	Abstract and/or presentation (the BC Patient Safety and Quality Council [BCPSQC] Quality Forum Conference; the Strategy for Patient-Oriented Research [SPOR] Putting Patients First Conference) Publications Report & Infographic (external webpage)

Research Study Workflow

Assuming NO consent is required:




Appendix A. Semi-structured Telephone Script

The patient's admission record and discharge summary can be reviewed on Meditech.

Hello, this is (insert caller name) calling from Fraser Health Virtual Care. You were recently discharged from the hospital and I am calling to see how you have been doing since your discharge.

Date of Admission:		Date of Discharge:		Discharge Summary on file:	<input type="checkbox"/> Yes <input type="checkbox"/> No
Info provided by:	<input type="checkbox"/> Client <input type="checkbox"/> Other _____ <input type="checkbox"/> Both	Discharge Diagnosis:			
Understanding reason for hospitalization or emergency visit:			Comments: N/A= Not applicable		
Do you understand the reason for your admission to the hospital? <input type="checkbox"/> Yes <input type="checkbox"/> No					
Did you receive written instructions when you left the hospital? <input type="checkbox"/> Yes <input type="checkbox"/> No					
If yes, can you explain it to me? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A					
Were you provided with information on warning signs or what to monitor, and when you would need to seek medical attention? <input type="checkbox"/> Yes <input type="checkbox"/> No					
Current Assessment			Intervention		
Airway and Breathing	<input type="checkbox"/> Normal Baseline for patient <input type="checkbox"/> Speaking full, clear sentences <input type="checkbox"/> Laboured <input type="checkbox"/> Short of breath <input type="checkbox"/> Cough Comments:		<input type="checkbox"/> Review clients Home O2 regimen <input type="checkbox"/> Review Medication: _____ <input type="checkbox"/> Seek medical attention Primary care provider/UPCC/WIC <input type="checkbox"/> Emergency Department		
Circulation	<input type="checkbox"/> No Concerns <input type="checkbox"/> Reports Palpitations <input type="checkbox"/> Chest Pain/ Pressure <input type="checkbox"/> Diaphoresis <input type="checkbox"/> Dizziness/ light-headedness <input type="checkbox"/> Edema Comments:		<input type="checkbox"/> Education provided _____ <input type="checkbox"/> Review Medication: _____ <input type="checkbox"/> Seek medical attention Primary care provider/UPCC/WIC <input type="checkbox"/> Emergency Department		
Disability	<input type="checkbox"/> Alert & Orientated/Baseline for patient <input type="checkbox"/> Confused <input type="checkbox"/> Sensory/motor changes <input type="checkbox"/> Altered Vision <input type="checkbox"/> Pain_____/10 <input type="checkbox"/> Blood Glucose _____ Comments:		<input type="checkbox"/> Education provided _____ <input type="checkbox"/> Review pain management <input type="checkbox"/> Seek medical attention Primary care provider/UPCC/WIC <input type="checkbox"/> Emergency Department		
Surgery <input type="checkbox"/> N/A	Surgical Incision: <input type="checkbox"/> Redness <input type="checkbox"/> Swelling <input type="checkbox"/> Drainage <input type="checkbox"/> Dressing Dry & Intact <input type="checkbox"/> Pain_____/10 <input type="checkbox"/> Fever <input type="checkbox"/> Deep breathing & coughing/physio/exercises and mobilize <input type="checkbox"/> Staple/Suture removal in: _____ Comments:		<input type="checkbox"/> Review Signs & Symptoms of infection (S/S) (ie: fever/ache/chills, warmth, redness, increased pain, swelling or pus to site) <input type="checkbox"/> Review multimodal analgesia and pain management (ie: alternate, wean) <input type="checkbox"/> Review Deep Vein Thrombosis education (ie: ambulation, watch for		

		skin that is really- red, warm, hurts to touch and/or swollen) <input type="checkbox"/> Seek medical attention Primary care provider/UPCC/WIC <input type="checkbox"/> Emergency Department
Gastrointestinal	<input type="checkbox"/> No Concerns <input type="checkbox"/> Nausea <input type="checkbox"/> Vomiting <input type="checkbox"/> Diarrhea <input type="checkbox"/> Constipation <input type="checkbox"/> Bleeding <input type="checkbox"/> Pain____/10 <input type="checkbox"/> Inadequate PO intake LBM:_____ Comments:	<input type="checkbox"/> Review Nausea/vomiting management <input type="checkbox"/> Review constipation prevention <input type="checkbox"/> Review oral rehydration <input type="checkbox"/> Review pain management <input type="checkbox"/> Seek medical attention Primary care provider/UPCC/WIC <input type="checkbox"/> Emergency Department
Genitourinary	<input type="checkbox"/> No Concerns <input type="checkbox"/> Dysuria <input type="checkbox"/> Frequency <input type="checkbox"/> Urgency <input type="checkbox"/> Hematuria <input type="checkbox"/> Distention <input type="checkbox"/> Pain____/10 <input type="checkbox"/> Difficulty voiding <input type="checkbox"/> Catheter Last Void:_____ Comments:	<input type="checkbox"/> Review Pain Management <input type="checkbox"/> Review S/S of infection <input type="checkbox"/> Tips to help urinate <input type="checkbox"/> Trouble shoot catheter <input type="checkbox"/> Seek medical attention Primary care provider/UPCC/WIC <input type="checkbox"/> Emergency Department
Musculoskeletal <input type="checkbox"/> N/A	<input type="checkbox"/> No Concerns <input type="checkbox"/> Pain: ____/10 <input type="checkbox"/> Wound <input type="checkbox"/> Swelling <input type="checkbox"/> Injury <input type="checkbox"/> Other <input type="checkbox"/> Color/Warmth/Movement/Sensation abnormalities Comments:	<input type="checkbox"/> Education provided_____ <input type="checkbox"/> Review pain management <input type="checkbox"/> Seek medical attention Primary care provider/UPCC/WIC <input type="checkbox"/> Emergency Department
 <input type="checkbox"/> N/A	<input type="checkbox"/> No Concerns <input type="checkbox"/> Bleeding <input type="checkbox"/> Discharge <input type="checkbox"/> Swelling <input type="checkbox"/> Pain:____/10 Location: <input type="checkbox"/> Vaginal <input type="checkbox"/> Penile <input type="checkbox"/> Scrotal Comments:	<input type="checkbox"/> Education provided_____ <input type="checkbox"/> Review pain management <input type="checkbox"/> Seek medical attention Primary care provider/UPCC/WIC <input type="checkbox"/> Emergency Department
Comments:		
Understanding your medications		Comments
Are you on any new medications? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Have you filled your prescription? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Do you understand what your medications are and why you are taking them? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Do you have any questions about your medications? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Follow up appointments		Comments
Do you have a follow up appointment booked with your doctor/nurse practitioner or specialist? <input type="checkbox"/> Yes Date:_____		
<input type="checkbox"/> No, When will you book? Date:_____		

Do you have any other follow up appointments booked (Lab, Imaging, Outpatient clinics)? <input type="checkbox"/> Yes Date: _____ <input type="checkbox"/> No, when will you book? Date: _____ <input type="checkbox"/> N/A	
Home supports	Comments
Since discharge from hospital, are you having trouble moving around or taking care of yourself (ie. dressing, bathing, cooking, and toileting)? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, did you get the recommended equipment/community resources? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Do you have any support at home if needed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A If No, has the client been referred to home health? <input type="checkbox"/> Yes <input type="checkbox"/> No	
FHVC contact information given? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Advised client to go to ER when:	
<input type="checkbox"/> Chest Pain <input type="checkbox"/> Shortness of breath <input type="checkbox"/> Difficulty breathing <input type="checkbox"/> Perfuse Bleeding <input type="checkbox"/> Worsening signs & symptoms of: Comments:	
Additional Notes:	

Appendix B. WeTel Text Messages and Algorithm

Quick Responses

1. We want to know if you are "OK" or "NOT OK" after your recent hospital visit? Please limit personal health information in your reply.
2. For risks of texting please visit <https://bit.ly/3cfa9YD>. Type "STOP" to end receiving texts from us.
3. I'm glad to hear that you're doing well! I wish you all the best in your continued recovery :D
4. I'm sorry to hear that you are having difficulty after coming home. I would like to discuss your health concerns further with you, is this phone number the best number to reach you at?
5. This clinical concern requires a more in depth assessment, what would be the best number to reach you at?
6. Do you have chest pain, uncontrolled bleeding, and shortness of breath or think you might be experiencing a stroke? If YES, please call 911 or proceed directly to your nearest Emergency Department.
7. For any non emergent future health concerns, please reply to this text or call 1-800-314-0999 between the hours of 10am-10pm to connect with a Registered Nurse
8. To learn more about the services FHVC provides, please visit <https://www.fraserhealth.ca/virtualcare>
9. Thank you, I will call you shortly.
10. Is this phone number the best number to reach you at?
11. I would encourage you to refrain from using inappropriate language, if this continues this interaction will unfortunately be ended

System Templates

Initial “Welcome” Message: Hello! I'm a nurse from <https://www.fraserhealth.ca/virtualcare>, available 10am-10pm daily, I wanted to see how you were doing after your recent hospital visit.

“Check-in” Message: We want to know if you are "OK" or "NOT OK" after your recent hospital visit? Please limit personal health information in your reply.

“Onboarding” Message: For risks of texting please visit <https://bit.ly/3cfa9YD>. Type "STOP" to end receiving texts from us.

Appendix C. Data Collection Sheets

Data Collection Excel Log for Post-discharge Calls to Record Patient Information on Participants Enrolled in each Study Group

Facility	Discharge Unit	Client name	PHN	Client phone #	Age	LACE Score	Reason for Admission	Profile #	Completed Call (X for yes) (blank for No)	Voicemail Left? (X for yes) (blank for No)	Gap Identified (X for yes) (blank for No)	Type of Gap
<i>e.g., ARH</i>	<i>e.g., AB-2CHEAMB</i>	<i>e.g., John Doe</i>	<i>e.g., 123456789</i>	<i>e.g., (604) 123-4567</i>	<i>e.g., 75</i>	<i>15</i>	<i>e.g., Stroke</i>	<i>e.g., 123456</i>	<i>e.g., X</i>	<i>e.g.,</i>	<i>e.g., X</i>	<i>e.g., did not receive any discharge instructions</i>
<i>e.g., SMH</i>	<i>e.g., SM-T84</i>	<i>e.g., Rachel Green</i>	<i>e.g., 987654321</i>	<i>e.g., (778) 987-6543</i>	<i>e.g., 38</i>	<i>22</i>	<i>e.g., NSTEMI</i>	<i>e.g., 654321</i>	<i>e.g.,</i>	<i>e.g., X</i>	<i>e.g.,</i>	<i>e.g.,</i>

Data Collection Excel Log for Patient Experience Surveys to Record Consent					
Client name	PHN	Client phone #	Call Answered (X for yes) (blank for No)	Declined Survey (X for yes) (blank for No)	Gave Consent (X for yes) (blank for No)
<i>e.g., John Doe</i>	<i>e.g., 123456789</i>	<i>e.g., (604) 123-4567</i>	<i>e.g., X</i>	<i>e.g., X</i>	<i>e.g., X</i>
<i>e.g., Rachel Green</i>	<i>e.g., 987654321</i>	<i>e.g., (778) 987-6543</i>	<i>e.g.,</i>	<i>e.g.,</i>	<i>e.g.,</i>

Appendix D. Patient Experience Survey Telephone Consent Script

Hello. May I please speak to (patient's name)? My name is (name of caller) and I am calling from Fraser Health.

(Control group) You are receiving this call because about a month ago, you were discharged from a hospital. We are conducting a research survey to learn more about your experience with your discharge from hospital. This study will help us improve the discharge experience for Fraser Health patients.

(Intervention group) You are receiving this call because about a month ago, you were discharged from a hospital and you received a phone call a day or two after your discharge from a Fraser Health nurse. We are conducting a research survey to learn more about your experience with the phone call you received after your discharge from hospital. This study will help us improve the discharge experience for Fraser Health patients.

The survey should take about 10-15 minutes to complete. Would you be willing to take part in the survey?

Before we begin, I am going to read you some important information about the survey.

This study has been reviewed and received ethics approval by Fraser Health. Should you have any comments or concerns resulting from your participation in this study, I can provide the contact information for the study's Principle Investigator. If you have any questions about your experiences while participating in this study, I can provide the contact information for the Fraser Health Research Ethics Board (REB) Chair.

All survey answers are recorded anonymously so there is no information that could identify you and your answers. At no point will your survey answers be shared with any person that is not a part of this study. Answers are recorded electronically and stored on a secure Fraser Health network drive that only the research team has access to.

Your participation is voluntary. There will be no consequences to you if you choose not to participate. You may stop the survey at any time and in doing so your survey answers will be deleted. You may refuse to answer any questions you do not wish to answer.

Do you have any questions?

Do you still agree to take part in this survey?

1. Yes go to begin survey

(At the end of the survey) That concludes the survey. Thank you for your time and participation. We will share the research study results on the Fraser Health website to find the study results in few months or you can give me your email address and we will send the research study results directly to your email. Your email is personal information and is protected under the BC Freedom of Information and Protection of Privacy Act (FIPPA). Your email will be recorded electronically and stored on a secure Fraser Health network drive that only the research team has access to. Your email will be kept strictly

confidential and will not be shared with anyone outside of the research team. We will not release or use your information for any other reason, unless permitted by law. Your email will only be saved until the end of this research study and then it will be deleted from our records. Would you like to provide your email to receive the research study results?

Appendix E. Patient Experience Survey

Intervention Group One (received a post-discharge call from FHVC)

Who completed the survey?		<input type="checkbox"/> Patient	<input type="checkbox"/> Caregiver			
The next set of statements are about the call you received from the nurse at Fraser Health Virtual Care after your discharge. Please indicate your level agreement with the following statements:						
1	The call improved my understanding of the instructions I received when I was discharged from hospital.	<input type="checkbox"/> Strongly agree	<input checked="" type="checkbox"/> Agree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> I don't know <input type="checkbox"/> Not applicable
2	The call helped me with a problem I had with <i>following</i> the instructions I received when discharged from hospital.	<input type="checkbox"/> Strongly agree	<input checked="" type="checkbox"/> Agree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> I don't know <input type="checkbox"/> Not applicable/ I did not have any problems
3	The call improved my understanding of the <i>follow-up appointments or tests</i> I needed to complete after my discharge from hospital.	<input type="checkbox"/> Strongly agree	<input type="checkbox"/> Agree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> I don't know <input type="checkbox"/> Not applicable
4a	The call improved my understanding of <i>what</i> medicines I am taking. ¹	<input type="checkbox"/> Strongly agree	<input type="checkbox"/> Agree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> I don't know <input type="checkbox"/> Not applicable
4b	The call improved my understanding of <i>why</i> I need to take my medicines.	<input type="checkbox"/> Strongly agree	<input type="checkbox"/> Agree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> I don't know <input type="checkbox"/> Not applicable
4c	The call addressed questions and or worries I had about my medicines.	<input type="checkbox"/> Strongly agree	<input type="checkbox"/> Agree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> I don't know <input type="checkbox"/> Not applicable
5	The call provided me with <i>additional information</i> that I did not receive when discharged from hospital.	<input type="checkbox"/> Strongly agree	<input type="checkbox"/> Agree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> I don't know <input type="checkbox"/> Not applicable
6	The nurse on the call was helpful in answering my questions.	<input type="checkbox"/> Strongly agree	<input type="checkbox"/> Agree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> I don't know <input type="checkbox"/> Not applicable
7	The call provided me with more confidence to manage my own health care after discharge.	<input type="checkbox"/> Strongly agree	<input type="checkbox"/> Agree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> I don't know <input type="checkbox"/> Not applicable
8	The call reduced concerns I have about managing my own health after discharge.	<input type="checkbox"/> Strongly agree	<input type="checkbox"/> Agree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> I don't know <input type="checkbox"/> Not applicable

¹ Skip 4b-4d if answer to 4a is Not applicable

9	The call I received from Fraser Health after my discharge from hospital is a valuable service.	<input type="checkbox"/> Strongly agree	<input type="checkbox"/> Agree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Not sure
10	Rate your satisfaction with the overall experience of the call you received.	<input type="checkbox"/> Very satisfied	<input type="checkbox"/> Satisfied	<input type="checkbox"/> Not satisfied	<input type="checkbox"/> Not very satisfied	<input type="checkbox"/> Not sure
The next few statements are about your follow-up doctors' appointments after you left the hospital						
11	Do you have a family doctor?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> I don't know		
12	Between leaving the hospital and now, did you see your family doctor for medical care (either in-person or virtually)? (skip to Q3 if answer to Q1 is no)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> I don't remember		
13	Between leaving the hospital and now, did you visit an Urgent & Primary Care Centre or walk-in clinic to see a doctor or nurse for medical care for something related to the same reason you were hospitalized? This could be either in-person or virtually.	<input type="checkbox"/> Yes, please specify	<input type="checkbox"/> No	<input type="checkbox"/> I don't remember		
Demographics (if caregiver, please complete demographics for the patient)						
14	Which city do you live in?	<input type="checkbox"/> Abbotsford <input type="checkbox"/> Agassiz <input type="checkbox"/> Burnaby <input type="checkbox"/> Chilliwack	<input type="checkbox"/> Delta North <input type="checkbox"/> Delta South <input type="checkbox"/> Hope <input type="checkbox"/> Langley	<input type="checkbox"/> Maple Ridge <input type="checkbox"/> Mission <input type="checkbox"/> New Westminister	<input type="checkbox"/> Surrey <input type="checkbox"/> Tri Cities <input type="checkbox"/> White Rock	<input type="checkbox"/> Other (please specify) <input type="checkbox"/> Prefer not to respond
15	What is your age? _____ (in years)	<input type="checkbox"/> Prefer not to respond				
16	Which of these describe your gender identity?	<input type="checkbox"/> Male <input type="checkbox"/> Female	<input type="checkbox"/> Transgender <input type="checkbox"/> Non-binary/non-conforming	<input type="checkbox"/> Other (please specify)	<input type="checkbox"/> Prefer not to respond	
17	Which race or ethnic group best describes you? ²	<input type="checkbox"/> Black <input type="checkbox"/> East Asian	<input type="checkbox"/> Indigenous* <input type="checkbox"/> Latino	<input type="checkbox"/> Middle Eastern <input type="checkbox"/> South Asian	<input type="checkbox"/> Another race category (please specify)	<input type="checkbox"/> Do not know

² Black African, Afro-Caribbean, African Canadian descent
East Asian (e.g., Chinese, Korean, Japanese, Taiwanese)
Southeast Asian (e.g., Filipino, Vietnamese, Cambodian, Thai, Indonesian)

		<input type="checkbox"/> Southeast Asian	<input type="checkbox"/> White			<input type="checkbox"/> Prefer not to answer
18	*Do you identify as First Nations, Métis and/or Inuk/Inuit?	<input type="checkbox"/> First Nations	<input type="checkbox"/> Métis	<input type="checkbox"/> Inuk/Inuit	<input type="checkbox"/> No	<input type="checkbox"/> Prefer not to answer
19	Which of the following best describes your total annual household income before taxes?	<input type="checkbox"/> \$0 <input type="checkbox"/> \$1 to \$9,999	<input type="checkbox"/> \$10,000 to \$24,999 <input type="checkbox"/> \$25,000 to \$49,999	<input type="checkbox"/> \$50,000 to \$74,999 <input type="checkbox"/> \$75,000 to \$99,999	<input type="checkbox"/> \$100,000 to \$149,999 <input type="checkbox"/> \$150,000 and greater	<input type="checkbox"/> Prefer not to respond

Intervention Group Two *(received a SMS from FHVC)*

	Who completed the survey?	<input type="checkbox"/> Patient	<input type="checkbox"/> Caregiver			
	The next set of questions are about the text message you received from Fraser Health Virtual Care.					
1	When I received the text message from Fraser Health Virtual Care, did I ...	<input type="checkbox"/> see the text and responded	<input type="checkbox"/> see the text and ignored it ³	<input type="checkbox"/> Did not receive the text ⁴		
2	When I responded to the text, I ...	<input type="checkbox"/> Received help over text	<input type="checkbox"/> was transferred to aand did not need call ⁵	<input type="checkbox"/> was doing well and did not need any help ⁶		
3	The text provided me with additional resources that I did not receive when I was sent home from the hospital	<input type="checkbox"/> Strongly agree	<input type="checkbox"/> Agree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> I don't know <input type="checkbox"/> Not applicable
4	The messages I received were appropriate.	<input type="checkbox"/> Strongly agree	<input type="checkbox"/> Agree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> I don't know <input type="checkbox"/> Not applicable

Indigenous (First Nations, Métis, Inuk/Inuit)

Latino (Latin American, Hispanic descent)

Middle Eastern Arab, Persian, West Asian descent (e.g., Afghan, Egyptian, Iranian, Lebanese, Turkish, Kurdish)

South Asian (e.g., East Indian, Pakistani, Bangladeshi, Sri Lankan, Indo-Caribbean)

³ Skip to 4

⁴ Skip to 8 then end survey

⁵ Skip to 4 and continue to 12 then skip to Intervention One survey

⁶ Skip to 4

5	The initial welcoming and onboarding messages I received were clear and easy to understand	<input type="checkbox"/> Strongly agree	<input type="checkbox"/> Agree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> I don't know <input type="checkbox"/> Not applicable
6	The text I received from Fraser Health after my discharge is a valuable service	<input type="checkbox"/> Strongly agree	<input type="checkbox"/> Agree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> I don't know <input type="checkbox"/> Not applicable
8	What is the best form of reaching out to you after your discharge?	<input type="checkbox"/> Texting	<input type="checkbox"/> Calling	<input type="checkbox"/> Email	<input type="checkbox"/> Other (please specify): _____	
9	Would you have found this service easier to use if it was delivered in a language other than English?	<input type="checkbox"/> Yes (please specify): _____		<input type="checkbox"/> No		
10	Rate your satisfaction with the time it took for you to receive a response	<input type="checkbox"/> Very satisfied	<input type="checkbox"/> Satisfied	<input type="checkbox"/> Not satisfied	<input type="checkbox"/> Not very satisfied	<input type="checkbox"/> Not sure
11	Rate your satisfaction with the overall experience of the text you received.	<input type="checkbox"/> Very satisfied	<input type="checkbox"/> Satisfied	<input type="checkbox"/> Not satisfied	<input type="checkbox"/> Not very satisfied	<input type="checkbox"/> Not sure
12	Rate your satisfaction with the overall experience of your discharge.	<input type="checkbox"/> Very satisfied	<input type="checkbox"/> Satisfied	<input type="checkbox"/> Not satisfied	<input type="checkbox"/> Not very satisfied	<input type="checkbox"/> Not sure
Demographics (if caregiver, please complete demographics for the patient)						
13	Which city do you live in?	<input type="checkbox"/> Abbotsford <input type="checkbox"/> Agassiz <input type="checkbox"/> Burnaby <input type="checkbox"/> Chilliwack	<input type="checkbox"/> Delta North <input type="checkbox"/> Delta South <input type="checkbox"/> Hope <input type="checkbox"/> Langley	<input type="checkbox"/> Maple Ridge <input type="checkbox"/> Mission <input type="checkbox"/> New Westminster	<input type="checkbox"/> Surrey <input type="checkbox"/> Tri Cities <input type="checkbox"/> White Rock	<input type="checkbox"/> Other (please specify) <input type="checkbox"/> Prefer not to respond
14	What is your age?	_____ (in years)		<input type="checkbox"/> Prefer not to respond		
15	Which of these describe your gender identity?	<input type="checkbox"/> Male <input type="checkbox"/> Female	<input type="checkbox"/> Transgender <input type="checkbox"/> Non-binary/ non-conforming	<input type="checkbox"/> Other (please specify)	<input type="checkbox"/> Prefer not to respond	What is your gender?

16	Which race or ethnic group best describes you?	<input type="checkbox"/> Black <input type="checkbox"/> East Asian <input type="checkbox"/> Southeast Asian	<input type="checkbox"/> Indigenous* <input type="checkbox"/> Latino	<input type="checkbox"/> Middle Eastern <input type="checkbox"/> South Asian <input type="checkbox"/> White	<input type="checkbox"/> Another race category (please specify)	<input type="checkbox"/> Do not know <input type="checkbox"/> Prefer not to answer
17	*Do you identify as First Nations, Métis and/or Inuk/Inuit?	<input type="checkbox"/> First Nations	<input type="checkbox"/> Métis	<input type="checkbox"/> Inuk/Inuit	<input type="checkbox"/> No	<input type="checkbox"/> Prefer not to answer
18	Which of the following best describes your total annual household income before taxes?	<input type="checkbox"/> \$0 <input type="checkbox"/> \$1 to \$9,999	<input type="checkbox"/> \$10,000 to \$24,999 <input type="checkbox"/> \$25,000 to \$49,999	<input type="checkbox"/> \$50,000 to \$74,999 <input type="checkbox"/> \$75,000 to \$99,999	<input type="checkbox"/> \$100,000 to \$149,999 <input type="checkbox"/> \$150,000 and greater	<input type="checkbox"/> Prefer not to respond

Control Group (did NOT received a post-discharge call from FHVC)

	Who completed the survey?	<input type="checkbox"/> Patient	<input type="checkbox"/> Caregiver			
	The next set of statements are about your discharge from the hospital...					
1	When I left the hospital, I clearly understood the instructions I received when I was discharged.	<input type="checkbox"/> Strongly agree	<input type="checkbox"/> Agree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> I don't know <input type="checkbox"/> Not applicable
2	After leaving the hospital, I had a problem <i>following</i> the instructions I received when discharged from the hospital.	<input type="checkbox"/> Strongly agree	<input type="checkbox"/> Agree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> I don't know <input type="checkbox"/> Not applicable
3	When I left the hospital, I clearly understood the <i>follow-up appointments or tests</i> I needed to complete after my discharge from hospital.	<input type="checkbox"/> Strongly agree	<input type="checkbox"/> Agree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> I don't know <input type="checkbox"/> Not applicable
4a	When I left the hospital, I clearly understood <i>what</i> medicines I am taking. ⁷	<input type="checkbox"/> Strongly agree	<input type="checkbox"/> Agree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> I don't know <input type="checkbox"/> Not applicable
4b	When I left the hospital, I clearly understood <i>why</i> I need to take my medicines.	<input type="checkbox"/> Strongly agree	<input type="checkbox"/> Agree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> I don't know <input type="checkbox"/> Not applicable

⁷ Skip 4b-4d if answer to 4a is Not applicable

4c	When I left the hospital, my questions and or worries I had about my medicines were answered.	<input type="checkbox"/> Strongly agree	<input type="checkbox"/> Agree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> I don't know <input type="checkbox"/> Not applicable
5	When I left the hospital, I was confident that I knew what to do to manage my own health care after discharge.	<input type="checkbox"/> Strongly agree	<input type="checkbox"/> Agree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> I don't know
6	Rate your satisfaction with the information you received during your discharge.	<input type="checkbox"/> Very satisfied	<input type="checkbox"/> Satisfied	<input type="checkbox"/> Not satisfied	<input type="checkbox"/> Not very satisfied	<input type="checkbox"/> Not sure
7	Rate your satisfaction with the overall experience of your discharge.	<input type="checkbox"/> Very satisfied	<input type="checkbox"/> Satisfied	<input type="checkbox"/> Not satisfied	<input type="checkbox"/> Not very satisfied	<input type="checkbox"/> Not sure
The next few statements are about your follow-up doctors' appointments...						
8	Do you have a family doctor?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> I don't know		
9	Between leaving the hospital and now, did you see your family doctor for medical care (either in-person or virtually)? (skip to Q10 if answer to Q8 is no)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> I don't remember		
10	Between now and leaving the hospital, did you visit an Urgent & Primary Care Centre or walk-in clinic to see a doctor or nurse for medical care for something related to the same reason you were hospitalized? This could have been either in-person or virtually.	<input type="checkbox"/> Yes, please specify	<input type="checkbox"/> No	<input type="checkbox"/> I don't remember		
Demographics (if caregiver, please complete demographics for the patient)						
11	Which city do you live in?	<input type="checkbox"/> Abbotsford <input type="checkbox"/> Agassiz <input type="checkbox"/> Burnaby <input type="checkbox"/> Chilliwack	<input type="checkbox"/> Delta North <input type="checkbox"/> Delta South <input type="checkbox"/> Hope <input type="checkbox"/> Langley	<input type="checkbox"/> Maple Ridge <input type="checkbox"/> Mission <input type="checkbox"/> New Westminister	<input type="checkbox"/> Surrey <input type="checkbox"/> Tri Cities <input type="checkbox"/> White Rock	<input type="checkbox"/> Other (please specify) <input type="checkbox"/> Prefer not to respond
12	What is your age?	_____ (in years)		<input type="checkbox"/> Prefer not to respond		
13	Which of these describe your gender identity?	<input type="checkbox"/> Man <input type="checkbox"/> Woman	<input type="checkbox"/> Transgender Woman	<input type="checkbox"/> I prefer to self-describe, please	<input type="checkbox"/> Prefer not to respond	

			<input type="checkbox"/> Transgender Man	specify: _____		
14	Which race or ethnic group best describes you? ⁸	<input type="checkbox"/> Black <input type="checkbox"/> East Asian <input type="checkbox"/> Southeast Asian	<input type="checkbox"/> Indigenous* <input type="checkbox"/> Latino	<input type="checkbox"/> Middle Eastern <input type="checkbox"/> South Asian <input type="checkbox"/> White	<input type="checkbox"/> Another race category (please specify) _____	<input type="checkbox"/> Do not know <input type="checkbox"/> Prefer not to answer
15	*Do you identify as First Nations, Métis and/or Inuk/Inuit?	<input type="checkbox"/> First Nations	<input type="checkbox"/> Métis	<input type="checkbox"/> Inuk/Inuit	<input type="checkbox"/> No	<input type="checkbox"/> Prefer not to answer
16	Which of the following best describes your total annual household income before taxes?	<input type="checkbox"/> \$0 <input type="checkbox"/> \$1 to \$9,999	<input type="checkbox"/> \$10,000 to \$24,999 <input type="checkbox"/> \$25,000 to \$49,999	<input type="checkbox"/> \$50,000 to \$74,999 <input type="checkbox"/> \$75,000 to \$99,999	<input type="checkbox"/> \$100,000 to \$149,999 <input type="checkbox"/> \$150,000 and greater	<input type="checkbox"/> Prefer not to respond

⁸ Black African, Afro-Caribbean, African Canadian descent
 East Asian (e.g., Chinese, Korean, Japanese, Taiwanese)
 Southeast Asian (e.g., Filipino, Vietnamese, Cambodian, Thai, Indonesian)
 Indigenous (First Nations, Métis, Inuk/Inuit)
 Latino (Latin American, Hispanic descent)
 Middle Eastern Arab, Persian, West Asian descent (e.g., Afghan, Egyptian, Iranian, Lebanese, Turkish, Kurdish)
 South Asian (e.g., East Indian, Pakistani, Bangladeshi, Sri Lankan, Indo-Caribbean)