

# Colon Cancer Prevention Program Discovery Report

Presented by Cate McPhee

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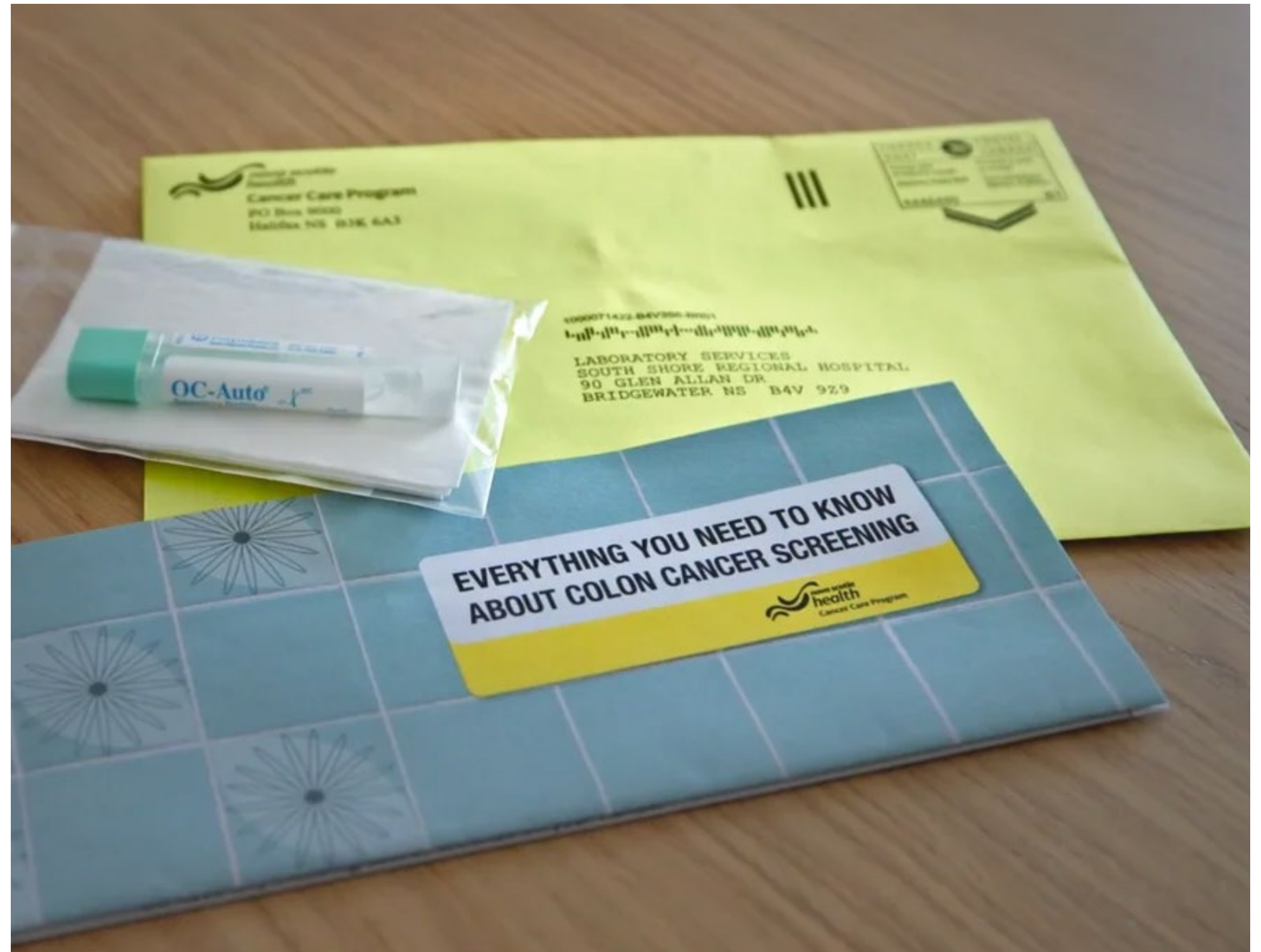
## INTRODUCTION

# The Problem

900 Nova Scotians are diagnosed with colon cancer every year, making it the third most common cancer in Nova Scotia. Colon cancer develops slowly through precancerous growths known as polyps. Regular testing can detect polyps early and prevent them from turning into cancer.

The Colon Cancer Prevention Program (CCPP) operates under Nova Scotia Health (NSH). The program sends fecal immunochemical tests (FIT) to Nova Scotia residents between ages 50 and 74 for free at-home testing. However, less than half of potential participants return their samples to the lab.

The goal of this report is to determine why the return rate is low and offer informed solutions to increase it. This document will identify problem areas with the CCPP's current materials and provide designs to tackle these issues.



KIT REVIEW

Invitation Letter

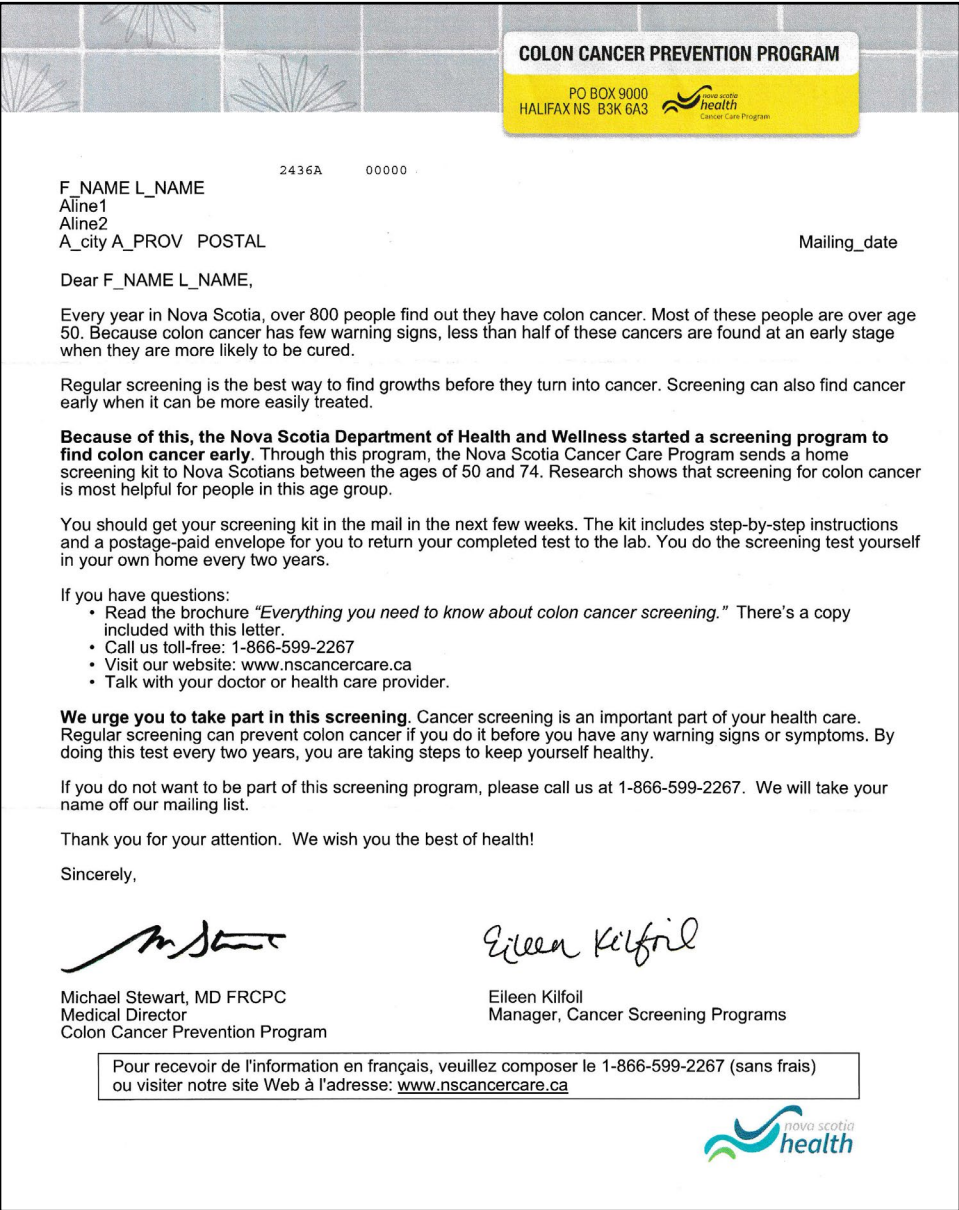
The invitation letter is the first contact point for many Nova Scotian residents with the CCPP.

The invitation letter begins by outlining the statistics of colon cancer in the province, the importance of regular screening, and why and when they will receive this kit.

The letter lists resources, a number to call if recipients want to opt-out, and a reminder of the importance of screening.

Options for accessing information in French are listed at the bottom.

The back of the invitation letter reiterates that readers will receive their test in a few weeks, that screening works best when done regularly, when the tests are sent out, and who to contact if they have questions.



**Things to know about the Colon Cancer Prevention Program**

- You'll get your home screening test in a few weeks.
- Screening works best when you do it regularly. We'll be inviting you to do a screening test every two years until you reach age 75.
- Not everyone will get the home screening test at the same time. We send out home screening tests every two years shortly after birthdays when a person turns an even age: 50,52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74.
- Talk with your doctor or a health care provider if:
  - You have concerns about colon cancer.
  - You are having long-lasting changes in your bowel habits.
- If you have questions about the home screening test:
  - Call us toll-free: 1-866-599-2267
  - Visit our website: [www.nscancercare.ca](http://www.nscancercare.ca)



KIT REVIEW

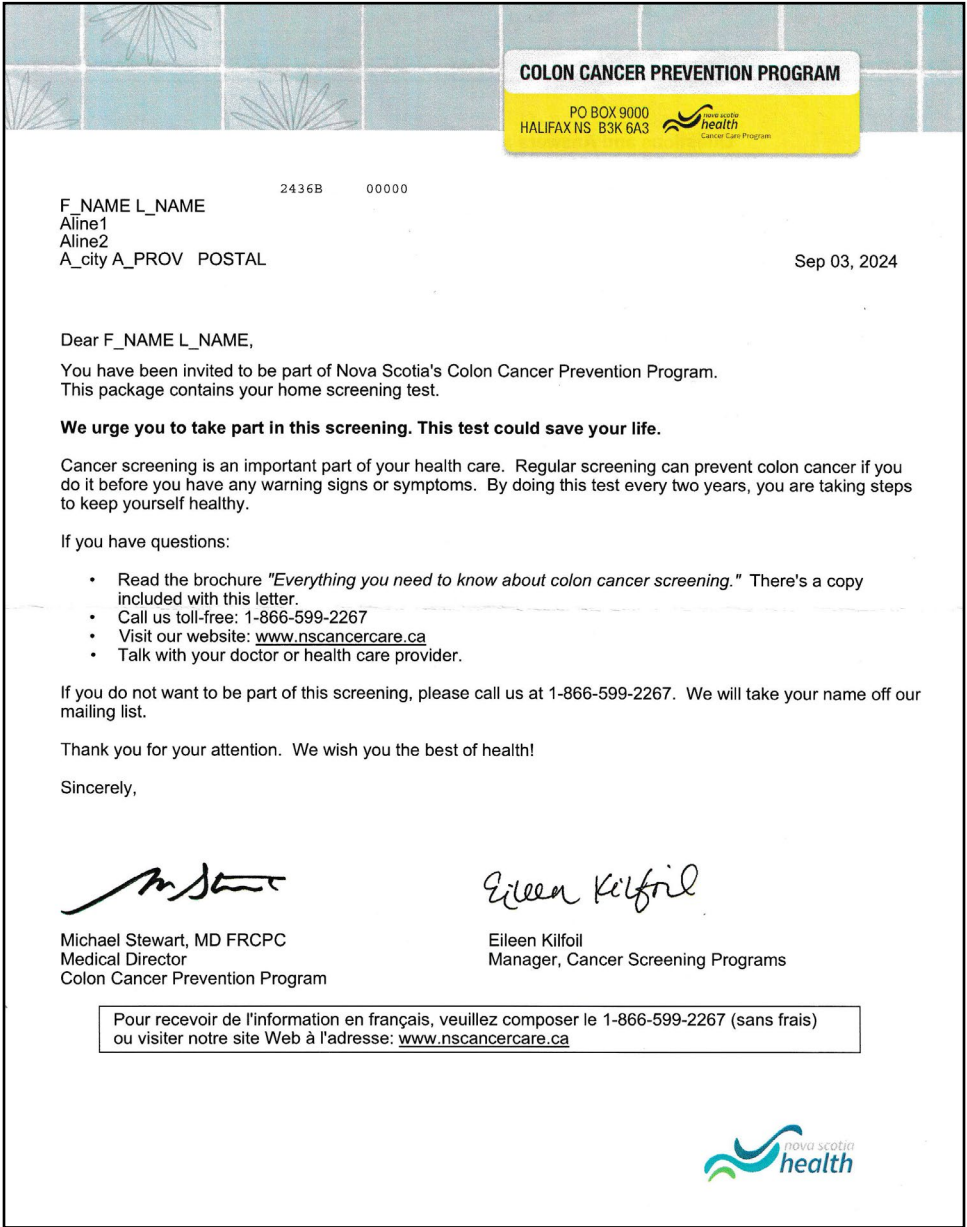
# Kit Letter

The kit letter welcomes users to the program and urges them to take the test, which could save their lives. It reminds readers of the importance of regular testing and provides resources if they have questions.

The letter provides a number to call if they want to be removed from the mailing list.

Options for accessing information in French are listed at the bottom.

The back of the letter answers common questions about the home screening test. It goes over how the test works, how it is performed, what happens if the results aren't normal/are normal and when to talk to your doctor.



### Questions and Answers about the Home Screening Test

**How does the home screening test work?**  
Colon cancer starts as a pre-cancerous growth or polyp. Most pre-cancerous growths leak a tiny amount of blood into the bowel -- too little to see in the stool (bowel movement, poop). The home screening test looks for these small amounts of blood hidden in the stool.

**How do I do the test?**  
You do the test in your home, at a time that works for you, but the sooner the better! You don't need to change what you eat before you do the test. Just follow the instructions in your kit.

- Collect a sample using the tube provided
- Fill in the participant form.
- Return your test and form to the lab in the postage-paid envelope provided. The test cannot be processed if it is returned too late to the lab.

Your test result will be mailed to you and your doctor or health care provider in about a month.

**What happens if the test result is not normal?**  
It means that the test found blood in your stool. We need to find out from where the blood has come. You will be invited to have a colonoscopy. This is a test in which a doctor looks at the inside of your colon with a small camera. Growths that cause bleeding can be found and are usually removed during the colonoscopy. **Most people who complete the test do not need to have a colonoscopy.**

**What happens if the test result is normal?**  
It means that the test did not find blood in your stool. However, small growths do not bleed and it can take as much as 12 years for a growth to develop, *so you will still need to do another screening test in two years.* We will send you a home screening kit every two years until you are 75 years old.

**Talk with a doctor or health care provider if:**

- You have concerns about colon cancer or about whether this test is best for you.
- You are having long-lasting changes in your bowel habits.

KIT REVIEW

# Instructions and Swab

The instructions guide users on how to use the test. They clarify that no dietary preparations are required, that the test should not be given to others, and to verify the health card number and expiration date.

The instructions also highlight situations in which the test should not be taken and where the lab may be unable to process a sample. The process is broken down into seven illustrated steps. Resources are indicated for contact with further questions. The same instructions are available in French on the back.

The tube and swab come in a small ziplock bag. The swab is used to scrape the stool and collect the sample. The tube contains a liquid and is meant to hold the sample. It has a sticker with the user’s health card number to verify that the correct person is using it.

### Home Screening Kit Instructions

Using the FIT (Fecal Immunochemical Test):

- Eat and drink normally. No dietary restrictions or preparation are needed.
- This is your kit. Do not give this test to someone else.
- Check that your name and your health card number are correct on the tube.
- Check the expiry date (yyyy/mm/dd) on the back of the tube. Do not use if the kit has expired.

Important – DO NOT take this test if:

- You have hemorrhoids that are bleeding or you have strained during bowel movement.
- It is during or within 3 days of your menstrual period.
- You have any bleeding cuts or wounds on your hands.
- You have blood in your urine, or if you see blood in the toilet bowl. In this case, contact your doctor.

1

Check that your name and your health card number on the tube are correct.

Write the date you collect the sample on the tube.

Empty your bladder before you do the test.

2

Collect a small amount of your stool (poop) in a clean, dry container or plate or use the tissue paper provided.

Do not let your stool touch the water.

3

Open the cap of the tube by twisting and pulling.

The green stick is attached to the cap.

4

Use the end of the stick to scrape a small amount of stool.

**Important:** Only scrape enough stool to cover the **grooved part at the end** of the stick.

*Just enough* *Too much*

5

Put the stick back in the tube & twist the cap closed.

Do not re-open the tube.

Some stool may move up the stick or into the liquid. That is ok.

6

Make sure the collection date is on the tube.

Put the tube in the zip-lock bag and seal.

Do not put anything else in the zip-lock bag.

7

Complete the participant form.

Put the zip-lock bag and the completed form in the return envelope.

Mail it to the lab promptly (within a few days).

The lab cannot test your sample if:

- there is no date on the tube
- the sample is too old
- too much stool is collected
- the kit has expired

If you have any questions about how to complete the kit, call **1-866-599-2267** or visit our website at **www.nscancercare.ca**.

If you do not receive your result in 6 weeks please call us.

Prepared by the N.S. Colon Cancer Prevention Program (Feb. 2023).

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KIT REVIEW

Information Sheet and Participant Form

The information page is an FAQ reiterating the importance of finding colon cancer early and providing practical information, including resources to call if they have any unanswered questions.

The participant form prompts users to review and confirm that their personal information is current, with space provided to note any necessary updates. It includes four questions, a place to acknowledge the information presented and invites participants to leave any additional comments.

EVERYTHING YOU NEED TO KNOW ABOUT COLON CANCER SCREENING

When found early, colon cancer can be cured.

This is important information about colon cancer and colon cancer screening. It will help you understand the home screening test.

How does colon cancer develop?

Colon cancer develops from abnormal growths in the colon (also called polyps). There are several kinds of polyps in the colon. The polyps that cause cancer are adenomas or adenomatous polyps. These are the polyps we are talking about in this information sheet.

How quickly do polyps grow?

It takes at least 10 years for a small polyp to change into cancer. There is time to find and remove those polyps before they become cancers.

How does the home screening test find polyps before they become cancers?

Small polyps do not bleed, but as they grow they are more likely to bleed. The screening kit can find tiny amounts of blood that are invisible. The test is easy to do. There is no need to change your diet and you can do the test in your own home. You use the kit to collect a small sample of stool. You mail the sample to the lab where it is checked for blood. You and your health care provider will both receive the result of your test by mail.

What does a normal test result mean?

It means that no traces of blood were found in your stool.

Does a normal test mean that I have no abnormal growths in my colon?

No. You may have a polyp that is too small to bleed right now, but it can grow, begin to bleed, and eventually turn into a cancer. It is very important to repeat the test the next time you get a kit in the mail. We will send you a kit every 2 years until you reach the age of 75. The kit will arrive in the mail shortly after you have an ‘even’ birthday (for example, at ages 56 or 64 or 72).

What does an abnormal test result mean?

An abnormal test means that traces of blood were found in your stool sample, but it does NOT mean you have cancer. In Nova Scotia, 60% of people with an abnormal test have the kind of polyps we are looking for, but very few are found to have cancer. Others with abnormal tests are found to have different causes of bleeding that are likely to require some form of treatment. If blood is found, we will contact you to book a colonoscopy. During this test the lining of the colon is looked at to find the cause of the bleeding. If the screening test finds a colon cancer before it causes symptoms, treatment is much more effective.

Colon Cancer Prevention Program Participant Form

nova scotia health authority

Nova Scotia Cancer Care Program

Name:

F\_NAME L\_NAME

HCN:

HCN

Address:

Aline1  
Aline2  
A\_city A\_PROV POSTAL

DOB:

BIRTH\_DT

Check the information above and make sure it is correct. If your mailing address has changed, please print the correct address information below. Also, please let MSI know of any changes. You can call them toll-free at 1-800-563-8880.

**Note:** This is your kit. **Do not give this kit to someone else.** The collection tube is labeled with your personal information and will not be processed at the lab if your personal information has been changed.

If any of the information below is wrong, please print the correct information in the boxes on the right.

Current Information on file

(Print changes here)

Daytime Phone #	PHO-NE_-NO	
Alternative Phone #	APH-ONE-_NO	
Mailing Address	Aline1 Aline2 A_city A_PROV POSTAL	
Doctor / NP Last Name	DLASTNAME	
Doctor / NP First Name	DFIRSTNAME	
Doctor / NP Mailing Address	Daline1 Daline2 DALINE3	

When answering the questions below, please fill in the circle completely. (Correct: ● )

If you **do not have a Family Doctor/Nurse Practitioner**, please fill in this circle: ○ (You may still do the test)

To help us learn how colon cancer affects people in Nova Scotia, please answer the questions below:

1. Do you have/have you had:

	Yes	No	Unknown
a) Colon (colorectal) cancer?	○	○	○
b) Inflammatory Bowel Disease (Crohn's disease or ulcerative colitis) for more than 8 years?	○	○	○
c) A hereditary disease that causes colorectal cancer (such as HNPCC or FAP)?	○	○	○
d) A history of polyps in the colon or rectum that needs checking with colonoscopy?	○	○	○
e) A first degree relative (mom/dad, sister/brother, child) who has/had colon cancer?	○	○	○

2. Have you ever been tested for colon cancer?

	Yes	No	Unknown
a) A stool test	○	○	○
b) A colonoscopy	○	○	○
c) Other test	○	○	○

Please turn over and complete the back side of the form

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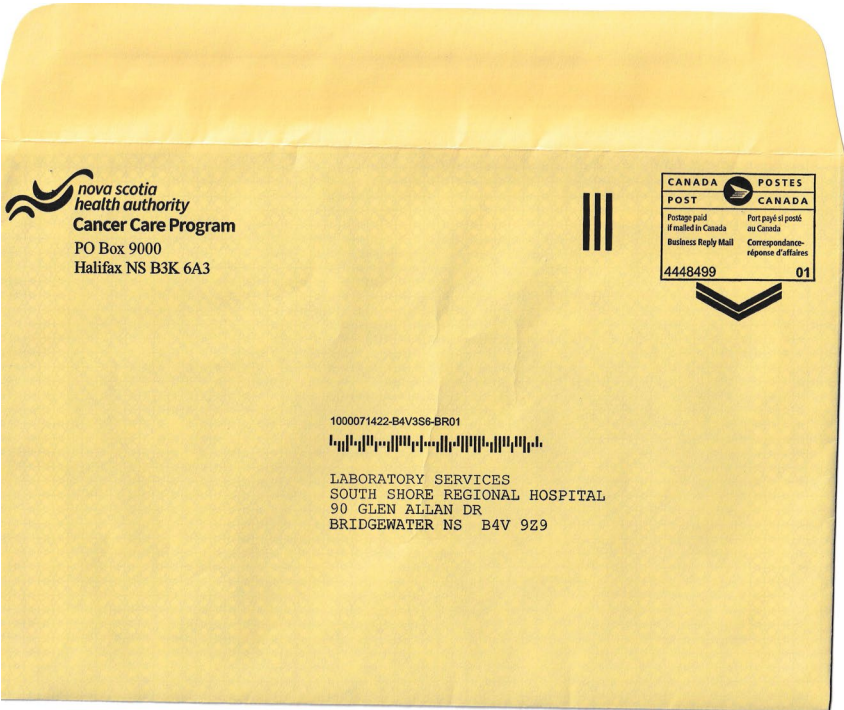
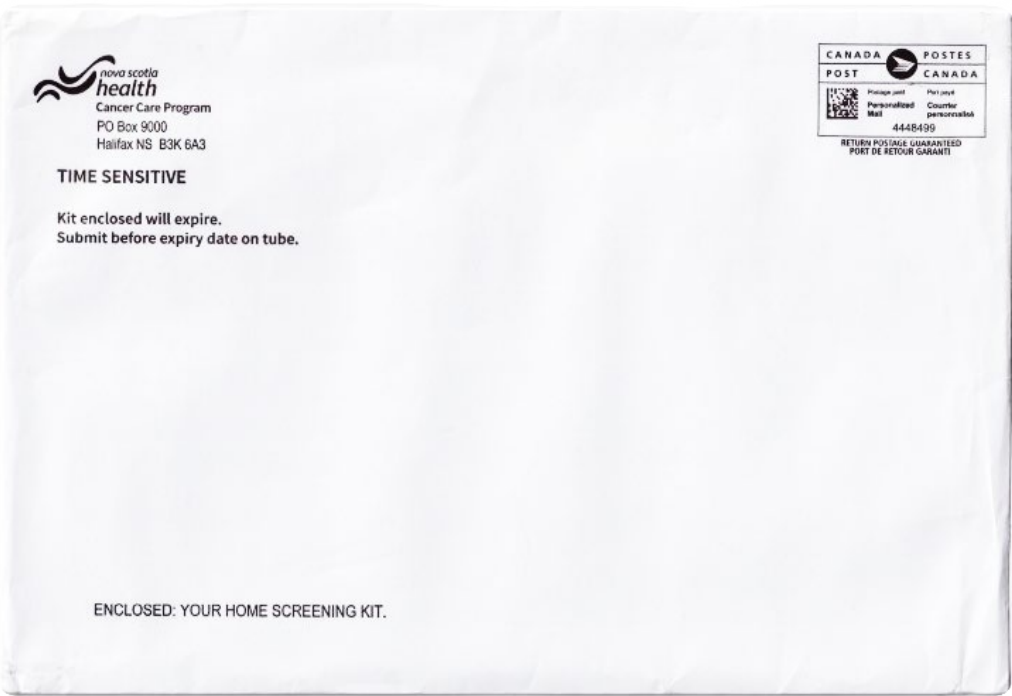


KIT REVIEW

# White and Yellow Envelopes

When the kit is sent, all its contents are enclosed in a white envelope. The packaging informs the user that it is coming from the Nova Scotia Health cancer care program. It discloses that the home screening kit is inside and has an expiry date.

A yellow postage-paid yellow envelope is included to send the sample and participant form to the lab for testing. The envelope utilizes security tinting, making it impossible to see through so the user’s information stays safe.





# Consistency

“Consistency helps decrease distractions and increase predictability in a design while breaking with this consistency will help draw attention to a novel element (RGD Ontario, 2021).”

The kit contains four documents, but they vary in typeface, type size, layout and paper size.

For instance, their toll-free number is provided on all documents and is presented differently each time. This inconsistency makes it difficult for individuals to quickly identify the number when they look for it.

Creating consistencies across the pages would help them feel cohesive and be accessible for a reader to navigate.

## How can I find out more?

The home screening test is designed to be an easy, private and comfortable way to screen for colon cancer. To learn more about the Colon Cancer Prevention Program and the home screening test call us toll-free at **1-866-599-2267**.

**Questions? Call us toll free at 1-866-599-2267 or visit [www.nscancercare.ca](http://www.nscancercare.ca)**

If you have questions:

- Read the brochure *“Everything you need to know about colon cancer screening.”* There’s a copy included with this letter.
- Call us toll-free: 1-866-599-2267
- Visit our website: [www.nscancercare.ca](http://www.nscancercare.ca)
- Talk with your doctor or health care provider.

If you do not want to be part of this screening program, please call us at 1-866-599-2267. We will take your name off our mailing list.

- If you have questions about the home screening test:
  - Call us toll-free: 1-866-599-2267
  - Visit our website: [www.nscancercare.ca](http://www.nscancercare.ca)

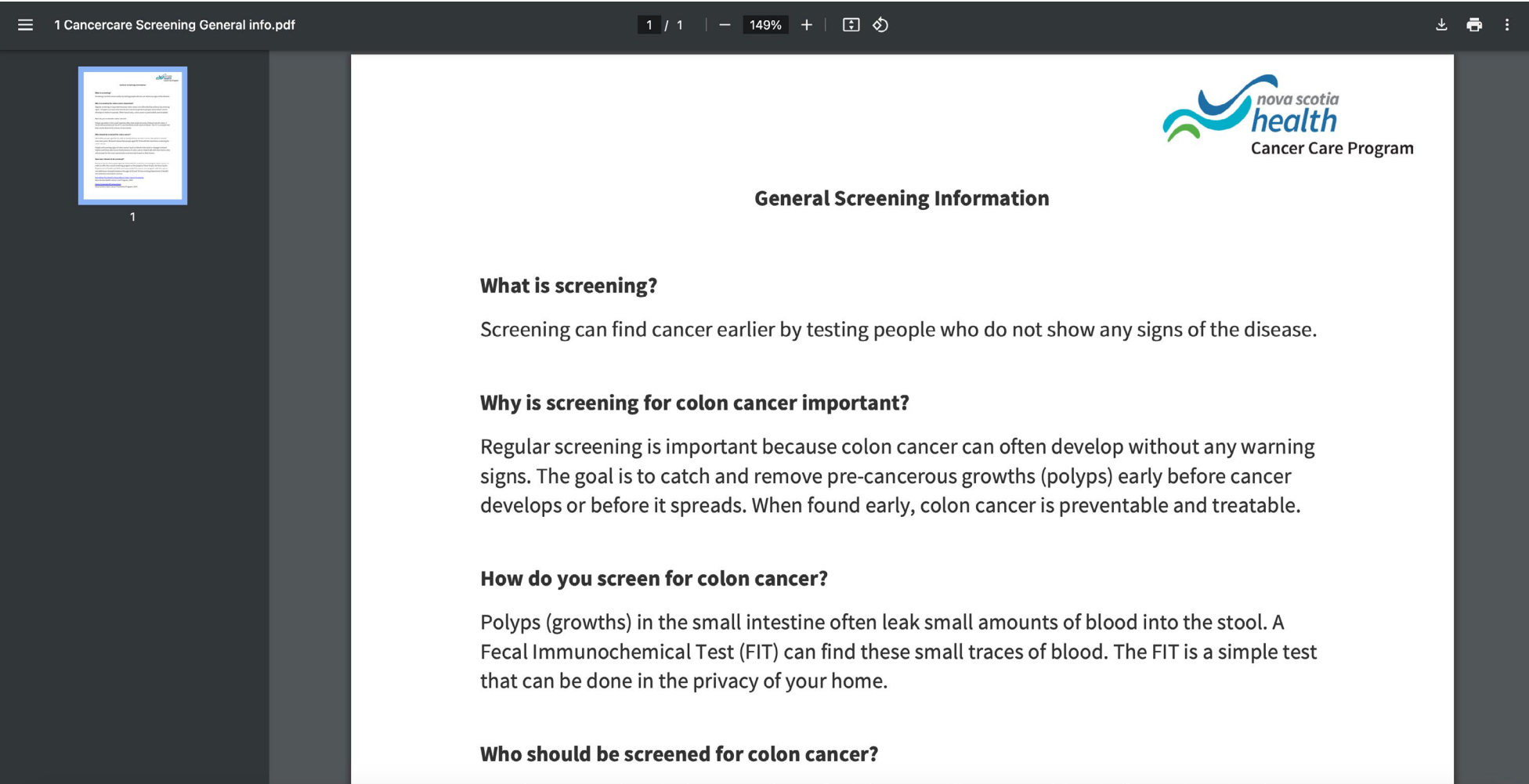
**If you have any questions about how to complete the kit, call 1-866-599-2267 or visit our website at [www.nscancercare.ca](http://www.nscancercare.ca). If you do not receive your result in 6 weeks please call us.**

Pour recevoir de l'information en français, veuillez composer le 1-866-599-2267 (sans frais) ou visiter notre site Web à l'adresse: [www.nscancercare.ca](http://www.nscancercare.ca)

# Predictability

“Users should be able to confidently predict where a link will take them and immediately recognize wherever they arrive (RGD Ontario, 2021).”

The NSH website offers information about colon cancer for program participants. Users are presented with four clickable hyperlinks that presumably take them to a part of the site to provide information; instead, they bring users to a PDF. This will disrupt the flow of reading for users. The information should be displayed in a way intended for the web, not print.



PRODUCT ANALYSIS

Long Titles

One of the pages is called “Everything You Need to Know About Colon Cancer Screening” and is referred to as such in the Participant Form. Long names are difficult for readers to remember.

While it may be informative, it won’t immediately resonate with users. Imagine someone is skimming through the multiple documents, trying to find this page.

The long title is difficult for someone to process at a glance. This title will cause formatting issues as designers must use smaller fonts or break it up into multiple lines.

Keeping the titles concise will make them memorable and more accessible to locate, and it will help out your beloved designers.



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How does colon cancer develop?

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PRODUCT ANALYSIS

# Abundance of Bold Text

The documents look visually heavy due to the overuse of bold fonts, which compromises one’s ability to understand which parts are truly important. I have highlighted all bold text on the participant form as an example. Bold fonts guide a reader through content; overuse will make the text feel cluttered and disorganized.

Bold should be used sparingly to highlight the most critical information.

Colon Cancer Prevention Program

Participant Form

nova scotia

health authority

Nova Scotia Cancer Care Program

Name:

F\_NAME L\_NAME

HCN:

HCN

Address:

Aline1  
Aline2  
A\_city A\_PROV POSTAL

DOB:

BIRTH\_DT

Check the information above and make sure it is correct. If your mailing address has changed, please print the correct address information below. Also, please let MSI know of any changes. You can call them toll-free at 1-800-563-8880.

Note:

This is your kit. **Do not give this kit to someone else.** The collection tube is labeled with your personal information and will not be processed at the lab if your personal information has been changed.

If any of the information below is wrong, please print the correct information in the boxes on the right.

Current Information on file

(Print changes here)

Daytime Phone #	PHO-NE-_NO	
Alternative Phone #	APH-ONE-_NO	
Mailing Address	Aline1 Aline2 A_city A_PROV POSTAL	
Doctor / NP Last Name	DLASTNAME	
Doctor / NP First Name	DFIRSTNAME	
Doctor / NP Mailing Address	Daline1 Daline2 DALINE3	

When answering the questions below, please fill in the circle completely. (Correct: ● )

If you **do not have a Family Doctor/Nurse Practitioner**, please fill in this circle: ○ (You may still do the test)

To help us learn how colon cancer affects people in Nova Scotia, please answer the questions below:

1. Do you have/have you had:

	Yes	No	Unknown
a) Colon (colorectal) cancer?	○	○	○
b) Inflammatory Bowel Disease (Crohn's disease or ulcerative colitis) for more than 8 years?	○	○	○
c) A hereditary disease that causes colorectal cancer (such as HNPCC or FAP)?	○	○	○
d) A history of polyps in the colon or rectum that needs checking with colonoscopy?	○	○	○
e) A first degree relative (mom/dad, sister/brother, child) who has/had colon cancer?	○	○	○

2. Have you ever been tested for colon cancer?

	Yes	No	Unknown
a) A stool test	○	○	○
b) A colonoscopy	○	○	○
c) Other test	○	○	○

Please turn over and complete the back side of the form

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12



RESEARCH METHODS

Research Paper

To begin my user research, I needed to understand different user experiences. I performed the test myself and dictated my own experience. I also gathered data from a study surveying factors associated with use and non-use of the Fecal Immunochemical Tests.

The study investigated factors associated with the use and non-use of the FIT kit, which helped me identify three user groups: continuing, converts and nonusers. Through user surveys, the research team gathered insight into who encouraged them to take the test, their motivations for completion, their reasons for not completing the test, and suggested changes to the kit (Gordon and Green, 2015). I incorporated recorded responses into my personas and their journey map.

Meeting with the Medical Director, Michael Stewart, and the Manager of Cancer Screening Programs, Eileen Kilfoil, was helpful in understanding their system.


[Home](#) > [BMC Public Health](#) > [Article](#)


# Factors associated with use and non-use of the Fecal Immunochemical Test (FIT) kit for Colorectal Cancer Screening in Response to a 2012 outreach screening program: a survey study




Research article | [Open access](#) | Published: 11 June 2015  
Volume 15, article number 546, (2015) [Cite this article](#)

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[Nancy P. Gordon](#)  & [Beverly B. Green](#)

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## Abstract

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### Background

The one-sample fecal immunochemical test (FIT) is gaining popularity for colorectal cancer (CRC) screening of average-risk people. However, uptake and annual use remain suboptimal.

Gordon, N. P., & Green, B. B. (2015). Factors associated with use and non-use of the Fecal Immunochemical Test (FIT) kit for Colorectal Cancer Screening in Response to a 2012 outreach screening program: A survey study. BMC Public Health, 15, 546. <https://doi.org/10.1186/s12889-015-1908-x>

RESEARCH METHODS

# User Personas and Journey Maps

User personas are representations of user groups. They help us better understand and sympathize with users’ behaviours, goals, motivations, and pain points.

Ppersonas are a common practice in the design thinking framework. They allow us to humanize data from spreadsheets and create a relatable story to inform future decision-making.

I created three user personas through in-class exercises, using the kit myself, interviewing an avid kit user, my mother, and taking data from a study published in the National Library of Medicine.



**Age** 60  
**Occupation** Psychiatrist  
**Location** Halifax

**Sofia Patel – Continuing User**

Sofia grew up in Halifax and embraced retirement in her hometown. She lives alone in an apartment with views of the harbour, where she regularly hosts intimate gatherings with friends and family.

Sofia takes weekly pilates classes and enjoys runs at Point Pleasant Park with her friends. She enjoys finding new recipes to ensure a balanced diet.

She has taken all testing kits sent to her and gets a colonoscopy every five years due to a family history of colorectal cancer.

Traits	Motivations	Pain Points
Empathetic	Family History	Back Pain
Analytical	Preventative Care	Uncomfortable Touching Stool
Independent	Convenience	Confusion About Instructions



**Age** 65  
**Occupation** Consultant  
**Location** Mahone Bay

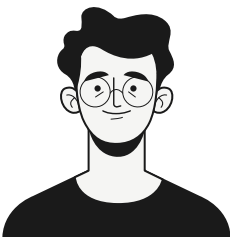
**Robert O'Connor – Converted User**

Robert works as a consultant in Mahone Bay. He uses his experience to advise construction companies on best practices and project management. He enjoys the flexibility that consulting offers.

Robert enjoys cycling with his wife weekly and generally aims for a balanced diet but eats many meals with red meat.

He hasn't taken any of the FIT kits sent to him in the past, and the pressure from his wife and doctor is starting to set in.

Traits	Motivations	Pain Points
Skeptical	Wife's Encouragement	Doubtful about Necessity
Forgetful	Doctor's Encouragement	Perceived Low Risk
Influenced by Authority	Guilt over Wasted Kits	Social Stigma



**Age** 50  
**Occupation** Engineer  
**Location** Halifax

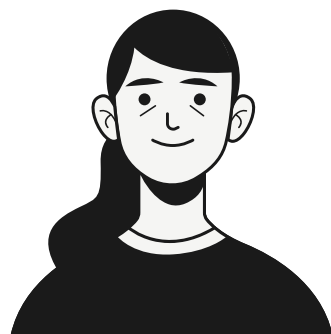
**Yuki Tanaka – Nonuser**

Yuki lives in Halifax with his wife and two children. He often spends long hours in front of a computer but consciously tries to maintain a healthy balance between work and family life.

Before work, he incorporates running or gym workouts to stay active. His vegetarian diet includes a higher intake of fibre and dairy products.

It is Yuki's first year receiving the FIT kit, and he has no other experience with colon cancer testing.

Traits	Motivations	Pain Points
Stubborn	Concern for Family	Lack of Knowledge
Disengaged	Wife's Encouragement	Mental Barriers
Passive	Healthy Lifestyle	Social Stigma



**Age** 60  
**Occupation** Psychiatrist  
**Location** Halifax

### Sofia Patel – Continuing User

Sofia grew up in Halifax and embraced retirement in her hometown. She lives alone in an apartment with views of the harbour, where she regularly hosts intimate gatherings with friends and family.

Sofia takes weekly pilates classes and enjoys runs at Point Pleasant Park with her friends. She enjoys finding new recipes to ensure a balanced diet.

She has taken all testing kits sent to her and gets a colonoscopy every five years due to a family history of colorectal cancer.

Traits	Motivations	Pain Points
Empathetic	Family History	Back Pain
Analytical	Preventative Care	Uncomfortable Touching Stool
Independent	Convenience	Confusion About Instructions

2

#### Waiting for Kit – Confident

Talk to siblings about the test and check the mail for the kit.

I'm grateful that these kits are so accessible. Has it arrived?

3

#### Kit Arrival – Motivated

Collect the mail, put the kit in the bathroom for easy access.

This test will keep me healthy. It is better to catch precancerous polyps early, then too late.

1

#### Receiving Letter – Confident

Get the mail from the mailbox, skim the letter and discard.

I hope I am negative again. It's been two years already?

7

#### Mailing the Kit – Organized

Take out the yellow envelope, read the back of it, place the test sample and form inside, put it in the car to mail during the next outing, and mail it while running errands.

Did I forget to add anything?  
How long until the test expires?

6

#### Participant Form – Helpful

Make changes to the address, answer questions, sign and date to verify understanding.

The FIT test could have saved my dad's life. I am happy that this program exists now.

4

#### Opening the Kit – Annoyed

Open the envelope, skim over the instructions, keep the instructions and the tube in the bathroom and put the rest of the contents on the bedside table.

I want to do this quickly. What do I need to keep, and what should I throw away? This is worth a couple of minutes of discomfort.

5

#### Using the Kit – Vulnerable

Put on disposable gloves, put the tube on the counter, put the tissue paper under the toilet seat cover, poop, collect the sample and place it in the tube, shake tissue to get the stool in the toilet, flush and dispose of the used tissue and gloves.

The tissue is too close to my butt. Did I contaminate the test sample. How did I do this last time? What is the best way to protect my stool from water?



### Robert O'Connor – Converted User

Robert works as a consultant in Mahone Bay. He uses his experience to advise construction companies on best practices and project management. He enjoys the flexibility that consulting offers.

Robert enjoys cycling with his wife weekly and generally aims for a balanced diet but eats many meals with red meat.

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**Age** 65  
**Occupation** Consultant  
**Location** Mahone Bay

Traits	Motivations	Pain Points
Skeptical	Wife's Encouragement	Doubtful about Necessity
Forgetful	Doctor's Encouragement	Perceived Low Risk
Influenced by Authority	Guilt over Wasted Kits	Social Stigma

2

#### Waiting for Kit – Anxious

While at an appointment, his family doctor encouraged him to do so. He then visited the website for research.

If I ignore it, it may go away.  
Should I should do it to be safe?

3

#### Kit Arrival – Conflicted

His wife gives him all mail addressed to him and encourages him to do the test.

I don't need to take it, I feel fine!  
My wife does them. How bad could it be? I don't want cancer.

#### Receiving Letter – Embarrassed

His wife gives him all the mail addressed to him, sorts through his pile, reads the envelope from NSH, and throws it away.

I don't need to read this. I know what it is. Did my wife see this?

1

4

#### Opening the Kit – Motivation

He opens the envelope, reads the instructions, finds answers in documents, and is convinced to take the test.

There is so much stuff in here. Is there anything I can do to prevent colon cancer? I feel guilty for wasting all of the kits that they have sent me.

5

#### Using the Kit – Panicked

Reads instructions, puts tissue paper on top of toilet water, the tissue gets wet, gets a disposable plate from the kitchen, holds the plate in hand, defecates, stands up with a plate in hand, collects the swab sample, gags, puts the stool in the toilet, flushes, and disposes of the paper plate.

Am I doing this right? My doctor and wife should be pleased. The instructions make it look like the tissue paper is floating on the water. All of the tissue paper is wet! Do we have any disposable plates? I want to give up.

6

#### Participant Form – Annoyed

Answers the questions, signs and dates to verify understanding of the facts.

Why would they need to know if I am part of a diverse community? Do I need to do this?

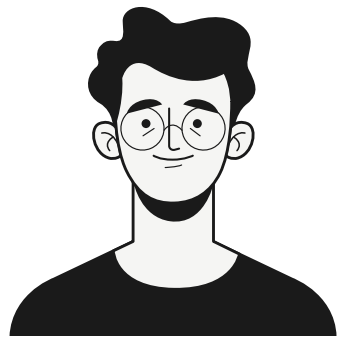
7

#### Mailing the Kit – Frustrated

He takes out the neon yellow envelope, puts the test sample and participant form in it, and forgets to send it off until it is too late.

I don't like the idea of sending my stool in the mail. I will mail that later. I am too busy today. If the test is expired, should I send it anyway? How could I forget to send it? This was all for nothing.





**Age** 50  
**Occupation** Engineer  
**Location** Halifax

### Yuki Tanaka – Nonuser

Yuki lives in Halifax with his wife and two children. He often spends long hours in front of a computer but consciously tries to maintain a healthy balance between work and family life.

Before work, he incorporates running or gym workouts to stay active. His vegetarian diet includes a higher intake of fibre and dairy products.

It is Yuki's first year receiving the FIT kit, and he has no other experience with colon cancer testing.

Traits	Motivations	Pain Points
Stubborn	Concern for Family	Lack of Knowledge
Disengaged	Wife's Encouragement	Mental Barriers
Passive	Healthy Lifestyle	Social Stigma

1

#### Receiving Letter – Discouraged

Gets mail from the apartment building mail room, sorts through letters, walks back to his apartment to open the letter in the kitchen, consumes information, puts the letter in the junk drawer.

What is the CCPP? Why am I receiving this? Am I getting old?

2

#### Waiting for Kit – Denial

Complains to self and worries about cancer.

I don't want this kit, and I don't want to call this number. It will take too much time. What does the kit look like? If I have colon cancer, I do not want to know.

3

#### Kit Arrival – Curious and Hostile

Collects the mail and throws it in the junk drawer.

How long would this take? This is ridiculous, and I am not sick. What does the kit look like? How does the test work?

4

#### Opening the Kit – Annoyed

Opens envelope, reads instructions and puts it back in the junk drawer.

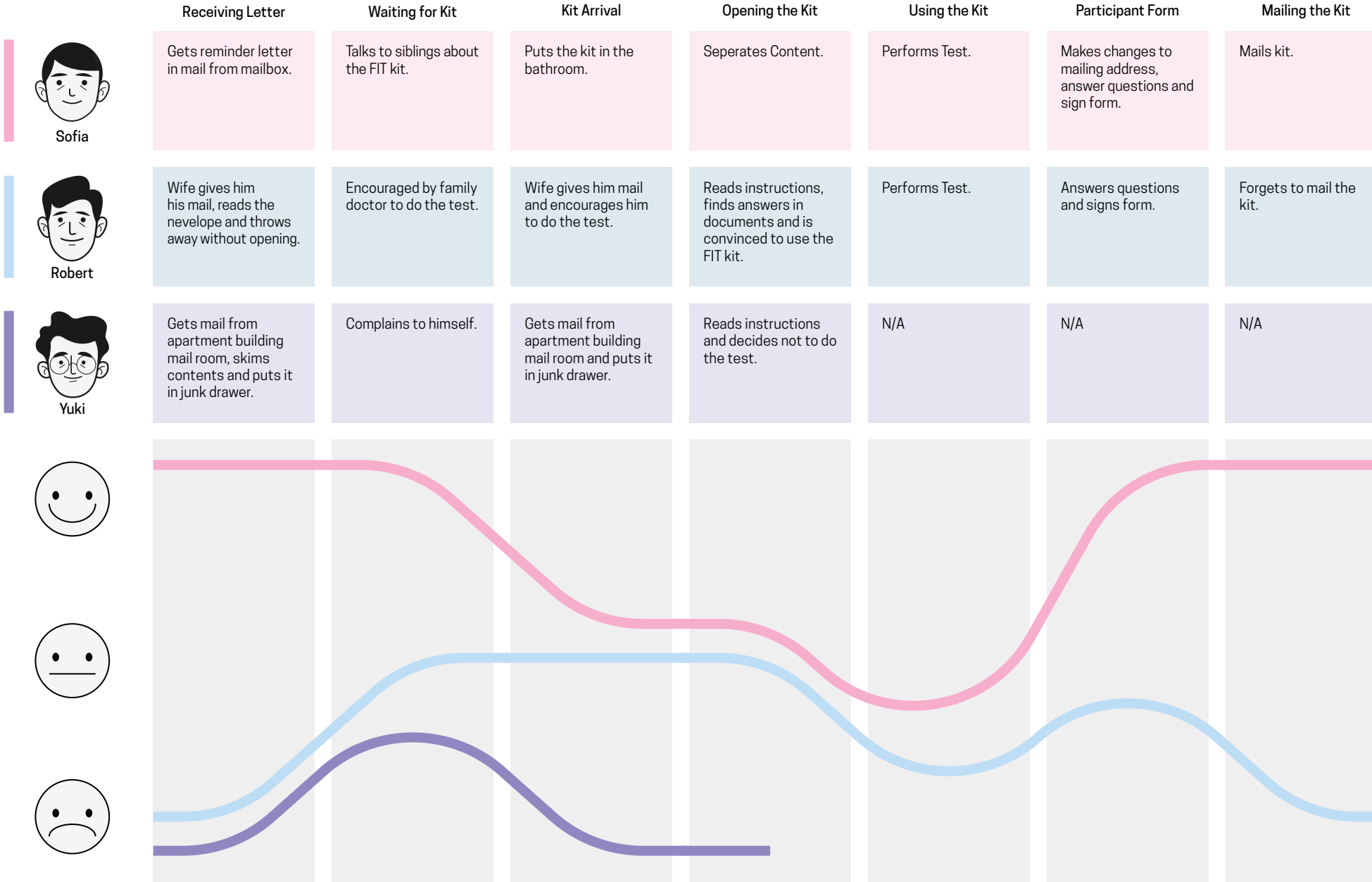
I'm not doing the test. I am not going anywhere near my poop. I can't believe people do this!

RESEARCH METHODS

# Experience Map

An Experience Map compares multiple user journeys at a glance to help you see the bigger picture. I used each user’s main actions from each phase.

The scale of emotions from happy to sad depicts their feelings during that phase. This overview compares three experiences to find consistencies and pain points.



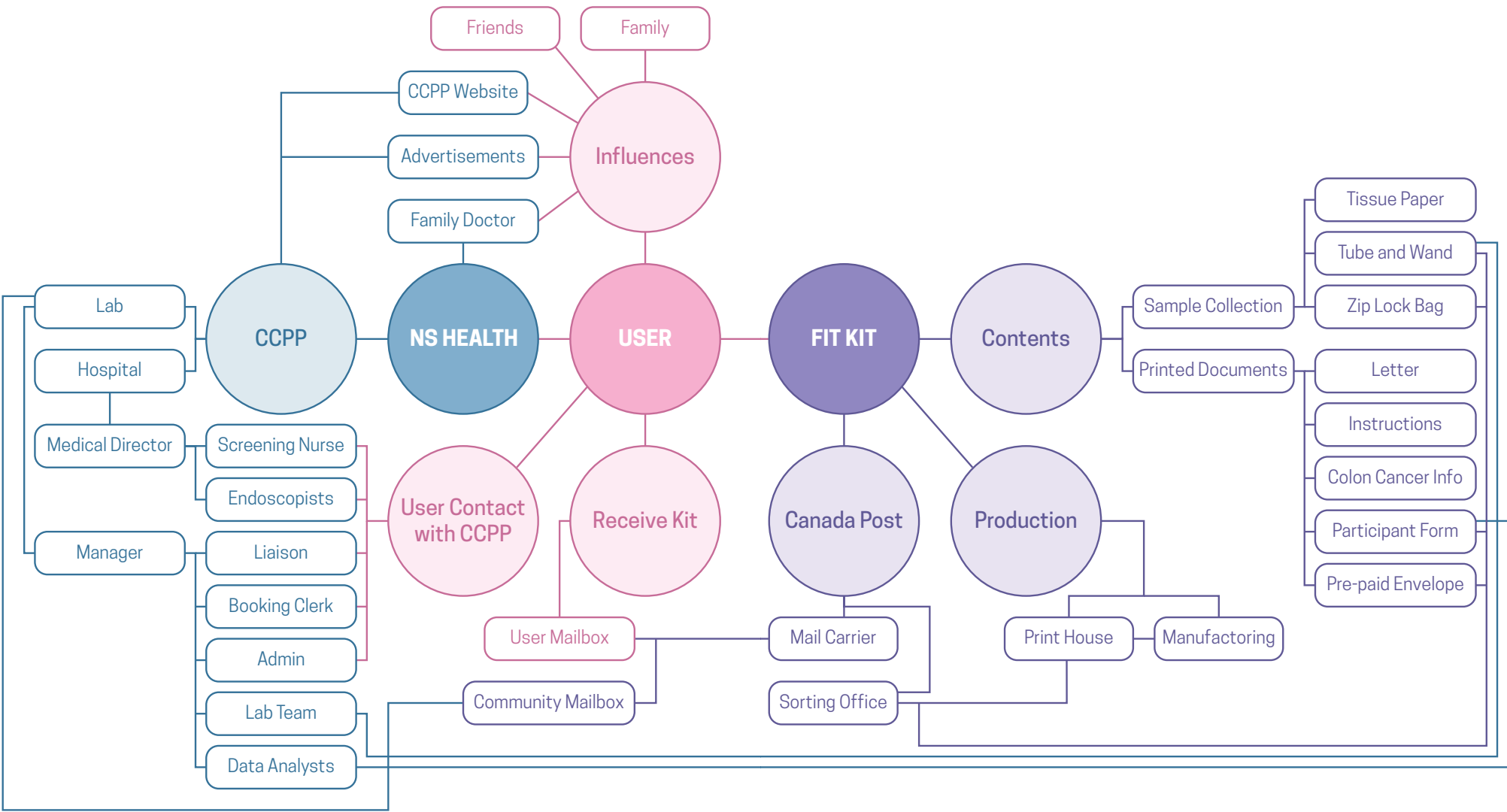
# System Map

The system map is an essential tool that provides insight into the interconnected components of NSH, the user and the FIT kit by highlighting the roles of various stakeholders and elements.

The Fit kits contain materials for sample collection manufactured in New York and printed documents made at a print house in Ottawa.

The manufactured materials are sent to the print house to be packaged and mailed through Canada Post. The mail carrier brings the kits to a sorting office, which is then delivered to the users' mailboxes.

When users receive the kit, they have many influences, such as family, friends, the CCPP website, CCPP and their family doctor. They may contact the CCPP by calling the toll-free number listed within the kit documents.

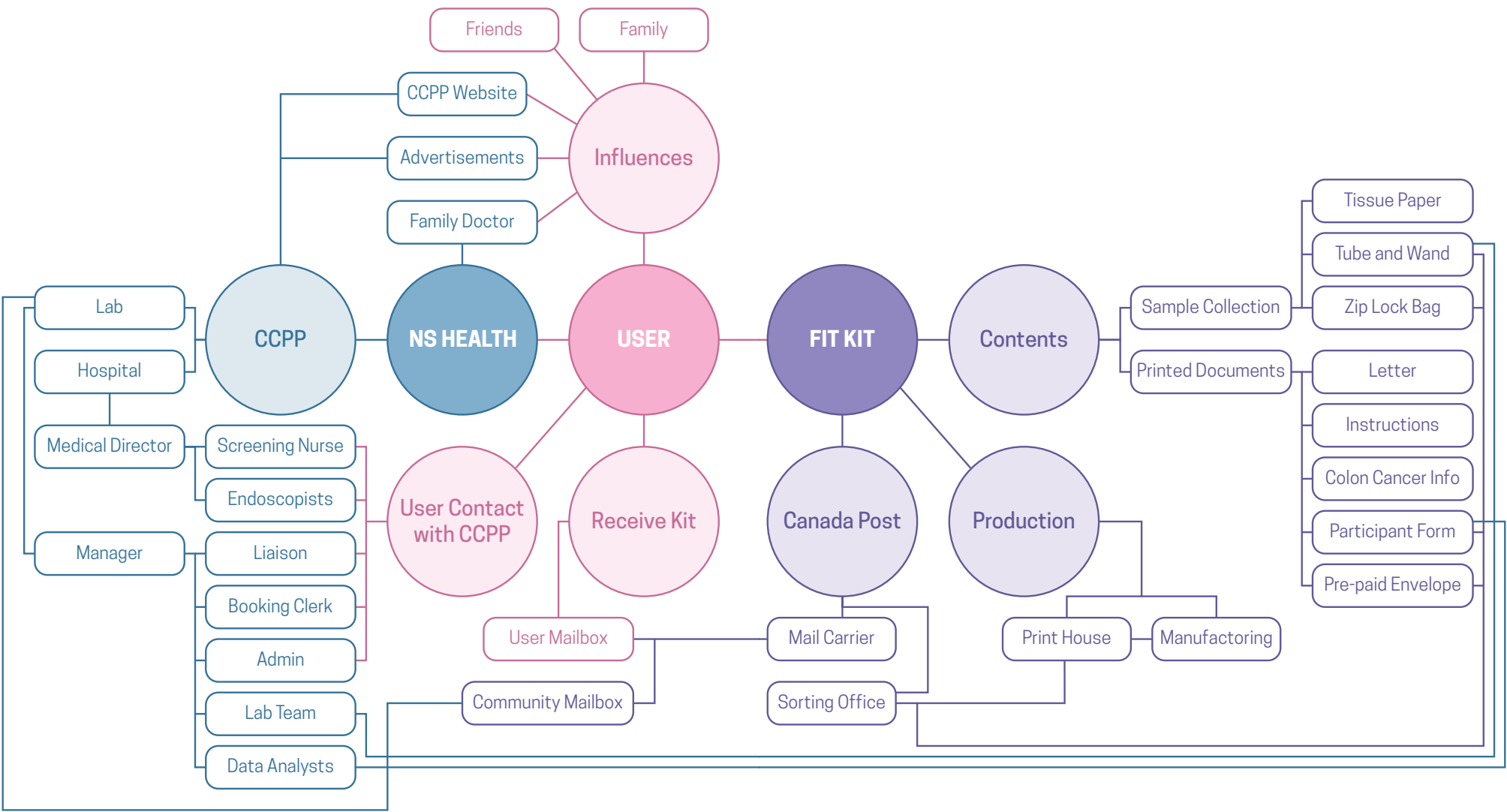


# System Map

Once a user completes the kit, they put a zip-lock bag containing the sample collected and the participant form inside the pre-paid envelope. The user brings this envelope to a community mailbox, where a mail carrier picks it up and brings it to a sorting office. From there, the envelopes are brought to the lab so the contents can be tested.

The CCPP operates under the NSH from a lab in Bridgewater and hospitals around the province. The Medical Director oversees the operations of the Endoscopists and Screening Nurses. The Manager oversees the operations of the liaison, booking clerk, admin, lab team and analysis.

The lab team is responsible for testing user samples, while the data analysis team retrieves information from participant forms. If users require a colonoscopy, they are notified through multiple channels, including a letter, family doctor, screening nurse and/or booking clerk.





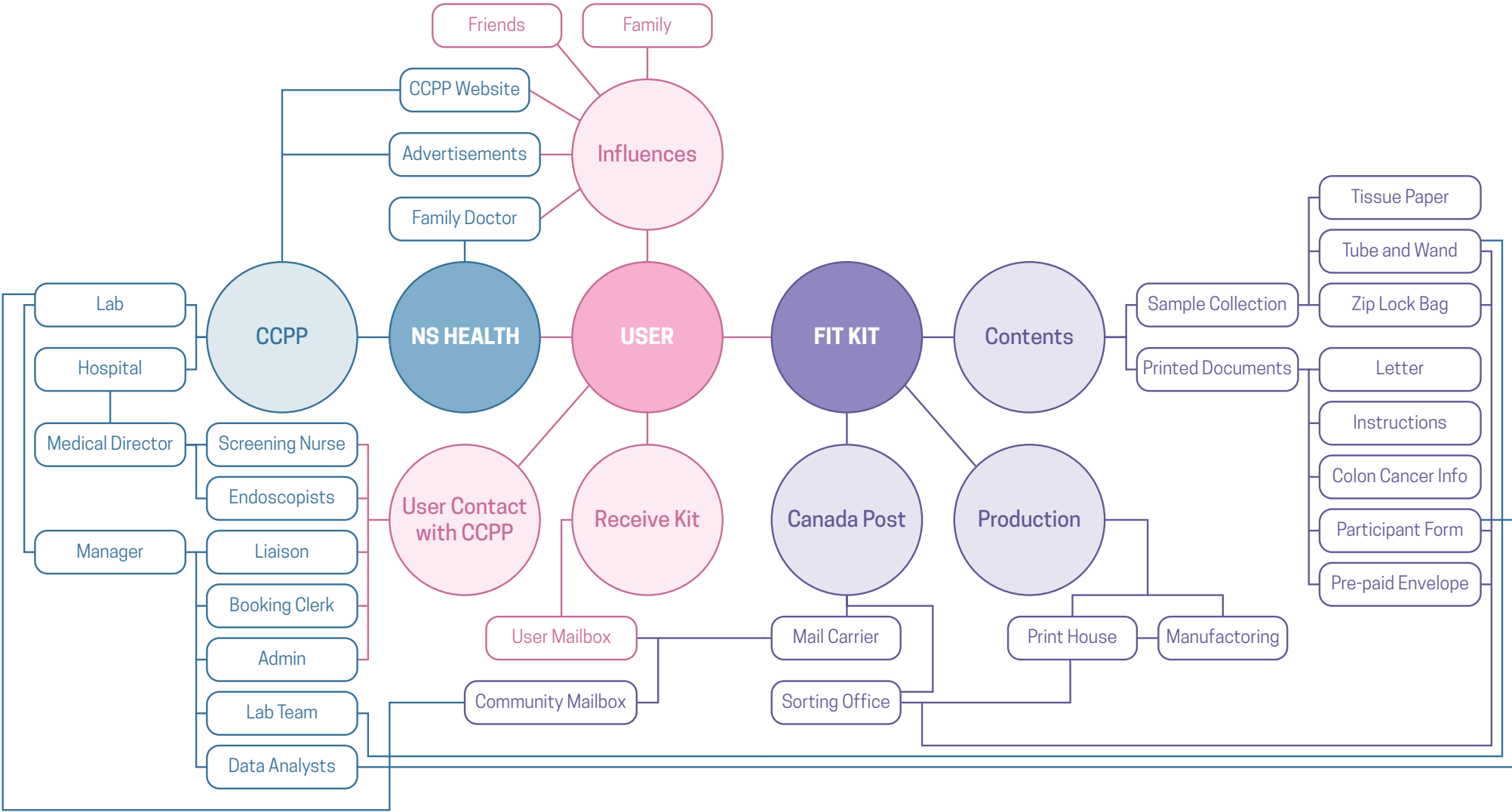
# System Map

By analyzing the interactions within this system, I identified pain points to be addressed.

The liaison is the only way users can directly contact someone at the CCPP, meaning that they receive many calls and voicemails to answer questions and process requests to be removed from the mailing list. When they are absent, the CCPP Manager noted that it takes four people to cover their work, resulting in internal hiccups that affect the user and their experience.

The FIT lab results can come from a screening nurse, a family doctor, a letter, and, in some cases, a booking clerk. The booking clerk’s role is to book colonoscopies, not provide users with their results, as they are not trained to deal with the questions or concerns the user may have.

The abundance of the kit’s contents causes cognitive overload. Too much information, spread over multiple documents, will be too much for the user to process.



CONCLUSION

System Analysis

This research has helped me appreciate the changes necessary to improve user experience and reduce cognitive overload.

I highlighted problem areas for the user and the CCPP documents.

When opening the kit, users will experience cognitive overload. Recipients won’t be able to process all of the information and may mentally shut down.

Difficulties with navigation may arise if users feel like information is being buried under unnecessary details. They will become frustrated and skip most of the material. Ignoring important information could lead to skepticism of the necessity of the test and confusion.

After analyzing the documents, I found issues that would result in reader fatigue, like the overuse of bold type, dense blocks of text, and inconsistencies.

Most people communicate with those around them while waiting for the kit. They may need reassurance or encouragement.

Family and friends sharing personal stories will create a sense of solidarity and reduce the awkwardness surrounding colon cancer screening.

Some users will complete the kit to meet the expectations of those who care for their health. By incorporating positive peer influence into the advertising, we can reduce stigma and encourage people to ensure that their friends and family complete the test.

Making a user enjoy taking this test isn’t a reasonable goal, as it involves handling their stool sample and serious health concerns. However, paying attention to pain points like confusion about the instructions, social stigma, and skepticism of the test’s necessity will ease the process.

People will worry about the discomfort of the test or discovering they have cancer. The last thing they need is confusing messaging.

My focus is to minimize obstacles and stress. Because this information is potentially life-saving, we need to present it in a way that is easy to digest.

In the upcoming weeks, I plan to review all documents and identify unnecessary content and redundancies to prioritize information. I will standardize the fonts, styles, and paper sizes across all documents to help users focus on the content without distractions from changing formats. I will consider combining information into a pamphlet to lessen the load of pages.

While redesigning the presentation of information, I will improve the visual hierarchy with clear headings, bullet points and bold to help users scan the content.