PATIENT EDUCATION HUB

"a central hub for patient-facing resources"

BACKGROUND

a virtual health learning technologies initiative

there is no current central location for digital patient-facing resources

patients frequently lose documents emailed to them and don't know where to go to find them

REQUIREMENTS

1)

a publicly accessible, patient-facing resource website that patients can explore or be linked to directly by clinicians

2)

a backend where clinicians and other VCH staff can create and maintain these resources

PATIENT FACING
REQUIREMENTS

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public
no login required to access

accessible
users with auditory, visual and other disabilities can navigate the site and consume the information

organized
clear hierarchy and navigation with good SEO and search that allows users to find the content they need
(Everything must be tagged)

CLINICIAN FACING REQUIREMENTS

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provisioned
thoughtful permissions that allow the right people to edit the content they "own"

authentication
a clear login flow

easy of use
clinicians can easily create good-looking content that follows VCH branding guidelines

FEATURES

self-assessment quizzes
self serve quizzes that provide instant guidance for patients

content hosting
content and media such as text articles, images, pdfs and videos

TERMINOLOGY

portal
a specially designed website that brings information from diverse sources together in a uniform way. [1]

patient portal
a secure online website that gives patients convenient, 24-hour access to personal health information [2]

content hub
a curated collection of branded content related to a topic [3]

[1] https://www.liferay.com/resources/l/web-portal
[2] https://www.healthit.gov/faq/what-patient-portal
[3] https://www.brafton.com/blog/distribution/the-strategy-behind-content-hubs-and-some-beautiful-examples/

PRECEDENTS

Telus Patient Portal

Interior Health MyHealthPortal

WebMD

Mayo Clinic

TELUS

dashboard

TELUS

secure messaging

TELUS

forms

INTERIOR HEALTH

dashboard

MyHealthPortal

Log Off

Sarah

Health Record	Appointments	Profile

Links:

COVID-19 Imaging Information

How to Download the App

HealthLink BC 8-1-1

Find a Physician

Pharmanet Questions

MyHealthPortal Video

Frequently Asked Questions

How to Share my Portal Account

Access for Minors 0-11

Access for Incapable Adults

INTERIOR HEALTH

records

INTERIOR HEALTH

forms

WEBMD

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search

WebMD®

HEALTH A-Z   DRUGS & SUPPLEMENTS   LIVING HEALTHY   FAMILY & PREGNANCY   NEWS & EXPERTS

SEARCH

MENU ⌄

A to Z Guides >

Health A-Z

Common Topics	All Health Topics

| All | A | B | C | D | E | F | G | H | I | J | K | L | M |
| N | O | P | Q | R | S | T | U | V | W | X | Y | Z |

A

Acne	Anorexia Nervosa
ADD-ADHD	Anxiety Panic
ADHD in Children Health Center	Arthritis
Adult Vaccines	Asthma
Allergies	Atrial Fibrillation
Alzheimers	Autism

VIEW MORE ›

B

Baby Center	Blog - Mental Health

TODAY ON WEBMD

Risky Mistakes Pet Owners Make
Some of these might surprise you.

Depressed, Guilty Feelings After Eating?
Symptoms of binge eating disorder.

Psoriasis Home Remedies
14 tips to ditch the itch.

Quit Smoking
Get your personalized plan.

RECOMMENDED FOR YOU

SLIDESHOW
Multiple Sclerosis Symptoms

SLIDESHOW
10 Secrets to a Sparkling Smile

SLIDESHOW
7 Ways You're Wrecking Your Liver

MAYO CLINIC

search

MAYO CLINIC

| Search Mayo Clinic | 🔍 |

Request an Appointment
Find a Doctor
Find a Job
Give Now

👤 Log in to Patient Account

🌐 English ⌄

🐦 f 📌 ▶️YouTube

| PATIENT CARE & HEALTH INFO ▼ | DEPARTMENTS & CENTERS ▼ | RESEARCH ▼ | EDUCATION ▼ | FOR MEDICAL PROFESSIONALS ▼ | PRODUCTS & SERVICES ▼ | GIVING TO MAYO CLINIC ▼ |

Symptoms

Find a symptom by its first letter

| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O |

| P | Q | R | S | T | U | V | W | X | Y | Z | # |

Symptom Checker

Check on one or more symptoms to find possible causes.

About this Symptom Checker.

First Aid

Information to help you during a medical emergency.

Mayo Clinic Marketplace

Check out these best-sellers and special offers on books and newsletters from Mayo Clinic.

Free Special Report — Psychological First Aid

ACCESSIBILITY

WCAG

Web Content Accessibility Guidelines (WCAG) is developed through the W3C process in cooperation with individuals and organizations around the world, with a goal of providing a single shared standard for web content accessibility that meets the needs of individuals, organizations, and governments internationally.

ACCESSIBILITY

W3 Quick Reference
https://www.w3.org/WAI/WCAG21/quickref

W3 Preliminary Test
https://www.w3.org/WAI/test-evaluate/preliminary

Accessibility Checklist
https://romeo.elsevier.com/accessibility_checklist

RISKS

―――

Permissions & User Management

Staff doesn't have access to the pages they need to edit, are unsure how to get it. Don't know how to login.

Content Management

VCH staff let data become outdated, don't add new info

Interoperability

The patient hub doesn't integrate with other public facing VCH websites, leads to duplicated or siloed content.

PERSONAS

Angela
Occupational Therapist

Simon
discharged elderly patient

Jacob
young pre-surgery patient

Occupational Therapist

Angela

> " Don't worry, you're in good hands. We'll lay out all you need to know in easy steps."

Strengths:
- Medical knowledge
- Strong patient understanding and empathy
- Understands what the patient should know about the procedures

Weaknesses:
- Busy and short on time
- Lacking time to learn new complex website technology

Opportunities:
- Ability to communicate and share documents with patients even better.
- Tracking of which documents were sent.
- Consolidation of duplicated or very similar documents across organization.

Threats
- Sharing wrong docs with wrong people, confusing patients.
- Wasting time uploading documents that aren't even useful/duplicated/into the wrong place.

Technology Level:
- Medium technology literacy level
- Primarily uses desktop computer

Goals:
- Organize resources for internal team/organizational use
- Easily share resources with patients

Painpoints:
- Disorganization of files across different sources
- Remembering login information

Journey Map Angela is using the Patient Education Hub to share information.

step	1	2	3	4	5
Thoughts & Emotions	"I want to share information with a patient. I hope the patient is well prepared."	"I need to add this information to the PEH. What's my login?"	"I need to add information to the eduation hub."	"Now that I am editing a page, I will upload the documents I want to share"	"I want to make sure my changes are saved." "I am ready to share this page/link."
Actions	Gather information that they want to share	Log in to the Patient Education Hub.	Create or find an existing page suitable for the topic of information they want to share.	Upload any files that are not already on PEH. Add files to PEH page.	Save and publish changes. Send page link to patients.
What we can do?	Provide intuitive platform Keep the content organized for easy sharing.	Have PEH login easily accessible from doctors' computers.	Provide simple CMS dashboard to edit information on pages.	Implement simple and intuitive upload controller. Provide clear file browser to navigate uploads	Provide ability to save drafts. Create clear share actions in the publish page flow.

Discharged Elderly Patient

Simon

> "How am I supposed to remember all these details? I don't want to mess up my recovery."

Strengths:
- Invested in their own health
- Eager to learn and reduce uncertainty

Weaknesses:
- Impeded memory
- Lack of knowledge of medical terms

Opportunities:
- Gain more information and clarity about VCH services.
- Gain fuller understanding of procedure and recovery process.

Threats
- Language barriers
- Losing the link
- Inability to navigate site to find info independently.
- Accessibility needs impeding access to information.
- Lack of access to technology to reach information.

Technology Level:
- Low technology literacy level
- Primarily uses desktop or tablet

Goals:
- Rest and make sure he follows all the necessary steps in recovery from his procedure.

Painpoints:
- Worried about volume of steps and information to read and follow accurately.
- Remembering information and where information was left (for physical or digital documents)

Journey Map
Patient is accessing PEH from mobile phone to follow recovery steps.

step	1	2	3	4
Thoughts & Emotions	"I'm glad to be back home again." "Was there any step or medicine I need to take immediately?"	"Here is the link I need to click." "I better make sure I don't lose this email."	"This is a lot of info to read." "I don't understand some of these words."	"I understand the info but won't remember it." "I want to save this to refer back to easily."
Actions	Opens email on phone to search for link of post-op directions he was told was sent.	Clicks link to open page in web browser.	Reads through linked page.	Saves Patient Education Hub webpage.
What we can do?	Provide consistent, easily identifiable VCH branded email template to help patients find it.	Can provide instructions in email for context & ways to save info.	Provide a dictionary/look up feature for jargon. Suggest layman terminology on caregiver side.	Provide easy saving methods: - Bookmark page - Share page through email, URL. - Save to cookies.

Young Pre-Surgery Patient
Jacob

" I'm terrified of something going wrong in a normal procedure like what you hear about in the news. "

Strengths:
- Invested in own health.
- Eager to learn and reduce uncertainty.
- Strong familiarity with websites.

Weaknesses:
- Lack of knowledge of medical terms.
- Worried about misinformation.
- Worries about complications and costs.

Opportunities:
- Gain more information and clarity about VCH services.
- Gain fuller understanding of procedure and recovery process.
- Ease fears regarding VCH visits.
- Learn more about other services offered by VCH .

Threats
- Language barriers
- Losing the link
- Inability to navigate site to find info independently.
- Accessibility needs impeding access to information.
- Lack of access to technology to reach information.

Technology Level:
- High technology literacy level
- Primarily uses phone or laptop

Goals:
- Alleviate worries about upcoming procedure.
- Properly complete all pre-procedure actions required.
- Learn more about the procedure they will be going through.

Painpoints:
- Fear and anxiety about upcoming procedure.
- Information overload. Uncertain which online resources are relevant.

Journey Map
Patient is looking for information about a possible procedure they might need.

step	1	2	3	4
Thoughts & Emotions	"I want to find info about the risks & solutions of my chest pain." "My friend told me about their surgery at VGH."	"There's a lot of info on here." "How can I navigate to what's relevant to me?"	"This is a lot of info to read." "I don't understand some of these words."	"I understand the info but won't remember it." "I want to save this to refer back to easily."
Actions	Accesses Patient Education Portal through vch.ca or Google search.	Navigates to relevant procedure info.	Reads through linked page.	Saves Patient Education Hub webpage.
What we can do?	Prioritize SEO for PEH site. Provide clear, accessible navigation to PEH from vch.ca	Provide clear, navigable information hierarchy. Create friendly quesetionnaire that narrows down the relevant pages.	Provide a dictionary/look up feature for jargon. Suggest layman terminology on caregiver side.	Provide easy saving methods: - Bookmark page - Share page through email, URL. - Save to cookies.

FLOW

**health provider
(backend)**

**patient
(public)**
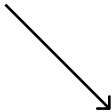
create page

*search
google*

*browse
navigation*

*recieve
direct link*

add content

publish page

view content

share link

WIREFRAMES: PUBLIC

browse navigation

NAV BAR

| Medical Units | Facilities | Procedures | Symptoms | Search box |

What are you looking for today?

Search box

ABOUT

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NAV BAR

| Medical Units | Facilities | Procedures | Symptoms | Search box |

A procedure	A procedure	A procedure
A procedure	A procedure	A procedure
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A procedure	A procedure	A procedure
A procedure	A procedure	A procedure
A procedure	A procedure	A procedure

ABOUT

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WIREFRAMES: PUBLIC

search

view content

NAV BAR

Medical Units   Facilities   Procedures   Symptoms | Search box |

SEARCH RESULTS

TITLE

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Risus, est a magna ipsum cursus augue lorem ut. Et in in tortor egestas condimentum...

Tags

| Tag | Tag |
| Tag | Tag |

TITLE

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Tags

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TITLE ⤵

Tags | Tag | | Tag | | Tag | | Tag |

Table of Contents
Subtitle 1
Subtitle 2
Subtitle 3
Subtitle 4

Downloads

File 1
File 2

SUBTITLE

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▶

SUBTITLE

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Risus...

WIREFRAMES: BACKEND

login

dashboard

PATIENT EDUCATION PORTAL

Care Provider Login

email

password

LOGIN

Please log in using your VCH Windows credentials.

NAV BAR

Pages   *Files*   Search box

CREATE NEW PAGE

Create a new page to share
information with patients.

CREATE PAGE

UPLOAD FILE

Upload a new file resource that can be
added to pages to share with patients.

UPLOAD FILE

WIREFRAMES: BACKEND

dashboard

page editor

WIREFRAMES: BACKEND

dashboard page view

Pages   Files   Search box

PAGE TITLE   SHARE   EDIT

Tags
form ✕   Tag ✕   Tag ✕   Tag ✕

SUBTITLE

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Risus, est a magna ipsum cursus augue lorem ut. Et in in tortor egestas condimentum...

Table of Contents
Subtitle 1
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SUBTITLE
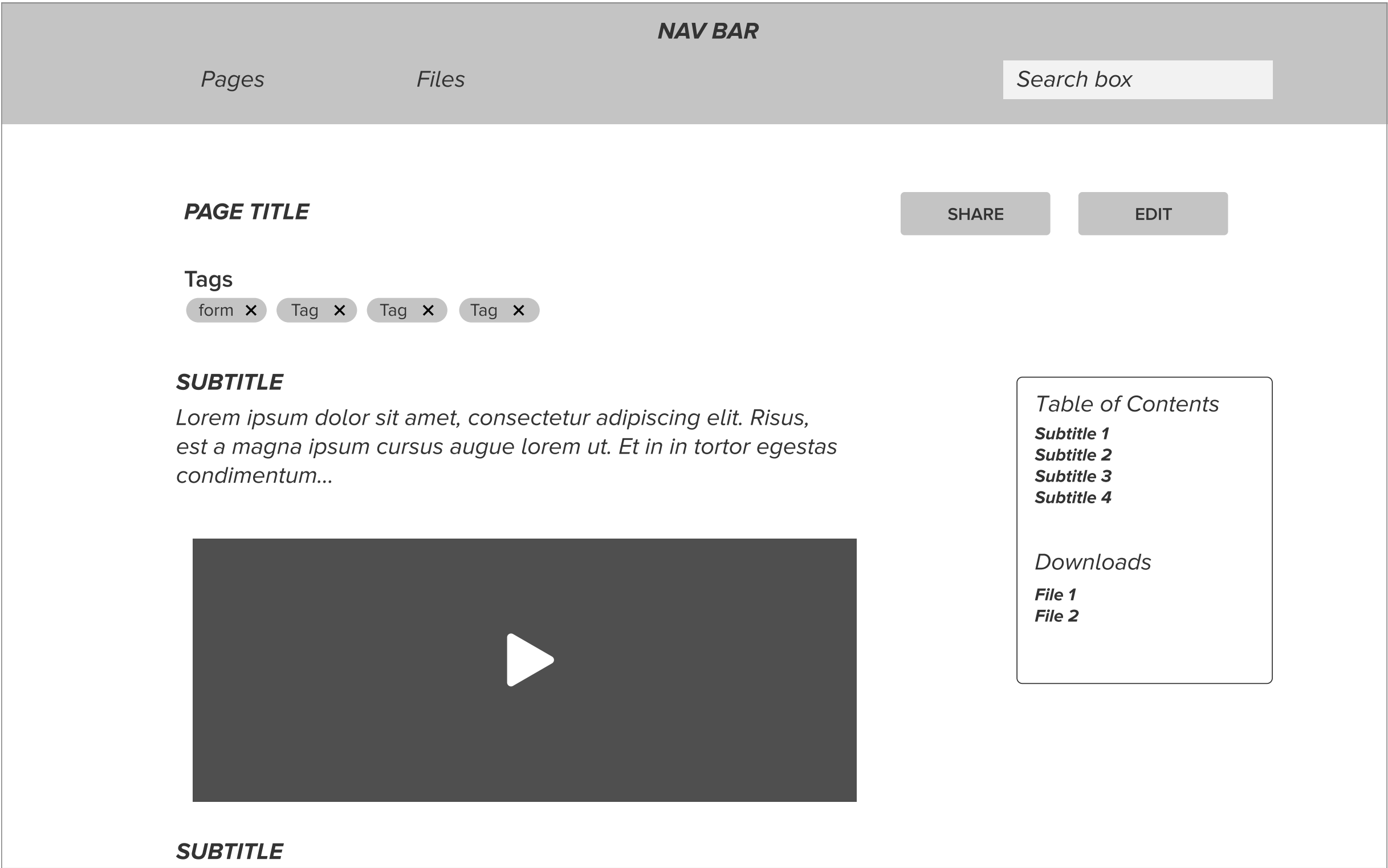
CONSIDERATIONS

*Questions about ownership, processes, and collaboration
across the following 5 perspective areas*

governance　　**technical**　　**policy**　　**clinical**　　**ID/UX**

CONSIDERATIONS

governance

Who manages permissions?

Sustainability?

Who is responsible for training clinicians about the site?

Who vets the content?

How will we be raising awareness of the site?

Who assesses old content?

shared with technical perspective

CONSIDERATIONS

technical

Who is responsible for tech. support? Is it needed?

How much will this application cost to host?

Where do we host the application?

How long will this take to develop?

shared with governance perspective

CONSIDERATIONS

policy

What belongs/doesn't belong on the Learning Hub?

Policy that instructs people to migrate to the education hub from various disparate systems

What belongs / doesn't belong on the Education Hub

Where do we host the application?

CONSIDERATIONS

___

clinical

Vetting process for publishing education?

___

How do we train clinicians in regards to creating and submitting resources?

What are the guidelines for writing/publishing content?

What are the guidelines for writing / publishing content?

shared with policy perspective

CONSIDERATIONS

—

ID/UX

How do we organize content in a hierarchy that makes sense?

Organizing Focus Groups

How long will this take to design?

Accessibility Guidelines

Surveying potential users early on

IDEAL SCENARIO

In a perfect scenario we would have

1 **❯** A ***single source of truth*** for collecting all VCH patient facing educational content, past and future

2 **❯** ***Clear governance and policies*** on gathering, vetting and updating content, identifying the right SMEs

3 **❯** A ***Sustainment plan*** including admin support for clinical users and public users, & technical infrastructure for keeping content up-to-date

4 **❯** ***Clear best practices*** for UI/UX/ID and Clinical

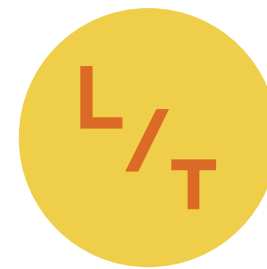5 **❯** ***Interoperability*** with vch.ca and beyond

SUMMARY

The findings are an early-stage assessment and best-practice for designing a central location for publicly accessible patient education.

To achieve the ideal scenario inter-departmental collaboration is necessary.

Multiple considerations are required throughout the development: governance/policy, technical, clinical, educational, UI/UX

Without inter-departmental support, Learning Technologies is only able to achieve a portion of the ideal scenario.

L/T

THANK YOU

Vancouver
CoastalHealth