

Lymphedema App

User Experience Design Course at Brainstation
Michelle Chia & Nesreen Al Hajjar



Presentation Outline

1. Introduction

- The Team
- Problem Space

2. User Discovery

- User Interviews
- Personas

3. Information Architecture

- Information Architecture
- User Flows
- Sketches

4. Wireframing & Prototyping

- Wireframes
- App Demo

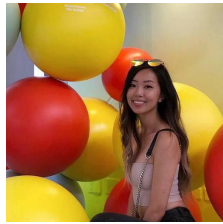
5. App Demo

- Style Guidelines

6. Learning Outcomes & Next Steps

Introduction

The Team



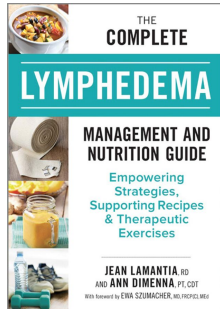
Michelle Chia



Nesreen Hajjar

What is Lymphedema?

- Lymphedema is swelling that occurs in the arms or legs due to the removal of or damage to your lymph nodes from cancer treatment, infection, or disease.
- Specific diets, compressions, and exercises may help reduce its symptoms on a trial and error basis.
- Currently over 1 million individuals in Canada and 10 million in the US have lymphedema.



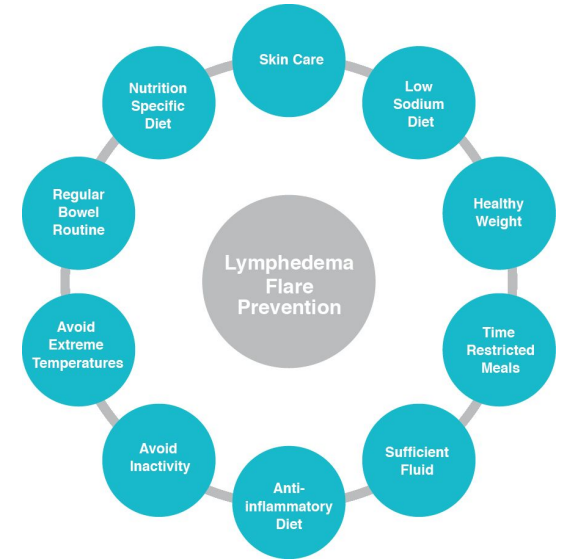
“Lymphedema is one of the most poorly understood, relatively underestimated, and least researched complications of cancer or its treatment.” - National Cancer Institute



The Problem Space

There is no comprehensive digital tracking tool for monitoring lymphedema.

- No single platform includes everything needed to monitor.
- A combination of different apps & manual tracking makes it difficult to compare and synthesize data.
- Most nutrition apps cater to the nutritional needs of the general population.



Project Description

Problem Statement: Individuals with lymphedema need a single comprehensive app to track their nutritional intake and symptoms, so they can easily identify and minimize their flare-ups.

Value Propositions:

- **An all-in-one platform** allows users to have all their lymphedema info in 1 consistent place.
- **Progress charts** allow users to visually see trends and patterns of all their data.
- **Shareable data** so users can look them over with health professionals.
- **Customizable tracking options** lets users focus on their own unique lymphedema.
- **Community platform** for users to learn from each other's experiences and get advice.
- **Linkable to other health apps** for a seamless health management experience.



User Research

Conducting User Research

60
Surveys

Collected from a Lymphedema Facebook Group.

5
Interviews

Sourced from the survey respondents.

Lymphedema
App
SURVEY



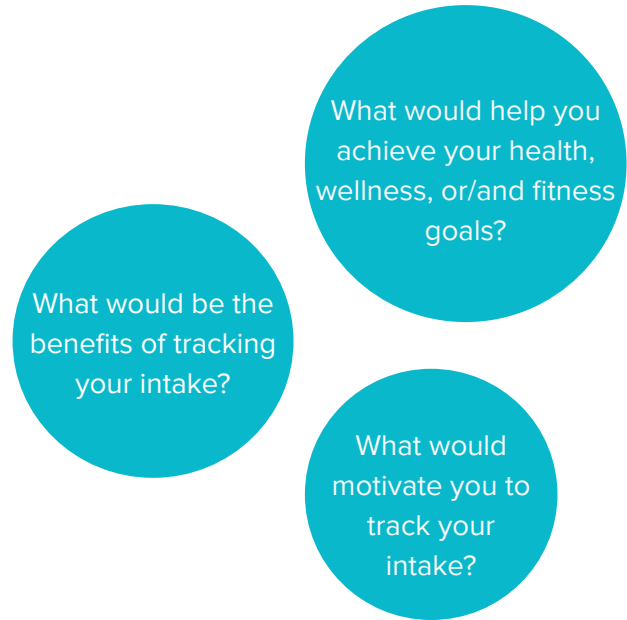
User Interview and Survey Questions

Qualifying factors:

- User has or takes care of someone with lymphedema
- User is open to tracking on an app

Question topics:

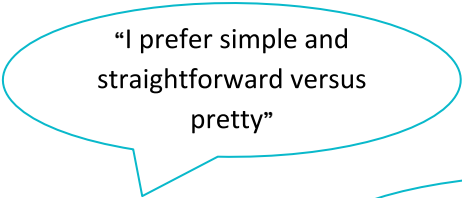
- User demographic/ background
- Tracking intake
- Nutrition goals
- Eating habits
- Lifestyle
- General app usage



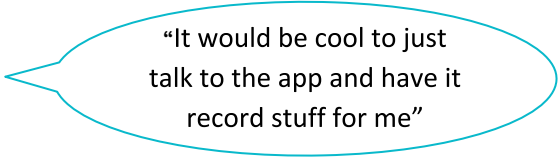
User Research Insights

Finding: Easy & efficient app usage

Insight: A simple all-in-one app would make the overall lymphedema management experience more efficient and seamless, so they can spend their free time on other things.



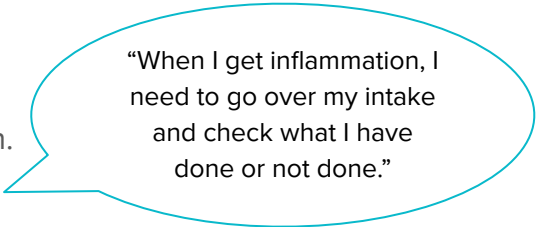
"I prefer simple and straightforward versus pretty"



"It would be cool to just talk to the app and have it record stuff for me"

Finding: Personalized tracking

Insight: Being able to track all lymphedema specific factors will allow users to focus on tracking what's important, so they can feel more confident in managing their health.



"When I get inflammation, I need to go over my intake and check what I have done or not done."

User Research Insights

Finding: See progress to identify triggers

Insight: Visual graphics showing correlations between the user's food, exercise, and symptoms would improve their awareness of their general wellbeing and help identify triggers, so they can adjust their lifestyle to minimize symptoms.

"I want to see results and noticing difference and physical improvement due to adjustment made"

"I like seeing summary graphs auto-generated of goals I hit, progression of symptoms/mood..."

Finding: Lymphedema resources & support

Insight: Having credible articles and shared tips from the community will bring awareness of various remedies and help them feel connected with others, so they can feel motivated to make better decisions for their health.

"I find it interesting to share goals, and benefit from other people's experiences".

User Personas

Barbara Twain



"Health is quite precious"

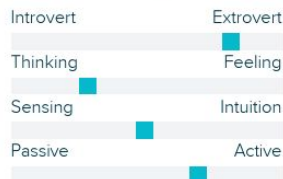
Age: 51

Work: Business Owner

Family: Married

Location: GTA

Personality



Confident Entrepreneur

Resourceful

Optimistic

Generous

Organized

Goals

- Optimizing my energy
- Lose weight
- Live pain-free
- Reduce my Lymphedema

Frustrations

- Generic tracking apps don't work for my body with Lymphedema
- Using three apps to track my Lymphedema
- Not able to identify my triggers
- Not having a consistency nutritional history record to review

Bio

Barbara is a business owner of a travel agency. She wants to own properties in different countries around the world. She cares deeply about the lymphedema community and wants to create unforgettable experiences tailored to their health needs. This will get a great opportunity for an Early retirement.

Motivation

Physical Health



Efficiency



Connecting with the community



Routine



Knowledge



Brands & Influencers



Preferred Channels

Traditional Ads



Online & Social Media



Referral



Medical System



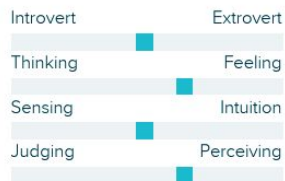
Stephanie Wong



"I want to live life the fullest and have fun!"

Age: 32
Work: Graphic Designer
Family: Single
Location: Toronto, Canada

Personality



Young Working Professional

Carefree

Adventurous

Goals

- I want to minimize the time I spend taking care of my lymphedema so I can focus on my career
- I want to know what triggers my lymphedema so I can stop/reduce the flare-ups
- I want to remember the right things I should do to minimize my symptoms

Frustrations

- Tracking my intake is too time consuming
- Tracking my intake is too difficult. I don't know what or how to track my intake
- I don't know what triggers my lymphedema because I don't track my nutritional intake consistently

Bio

Stephanie is a young working professional who loves to spend her free time with friends trying new restaurants and planning her next vacation. She wants an easy and accurate way to manage her lymphedema so it doesn't get in the way of her adventurous lifestyle.

Motivation



Brands & Influencers



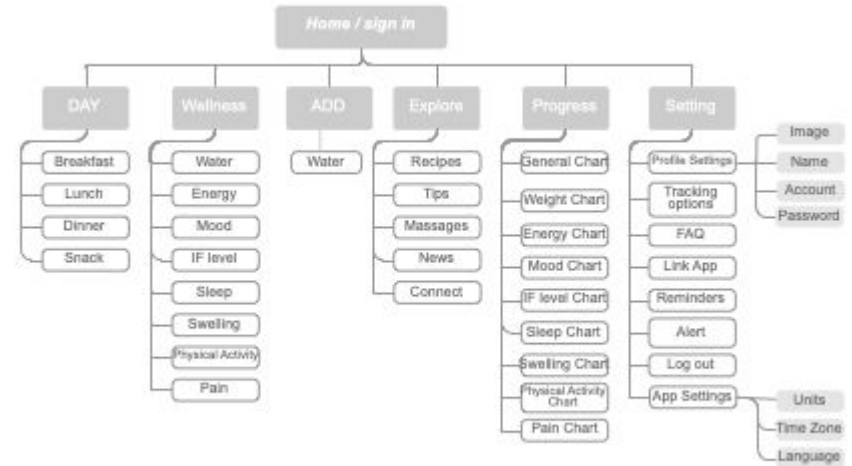
Preferred Channels



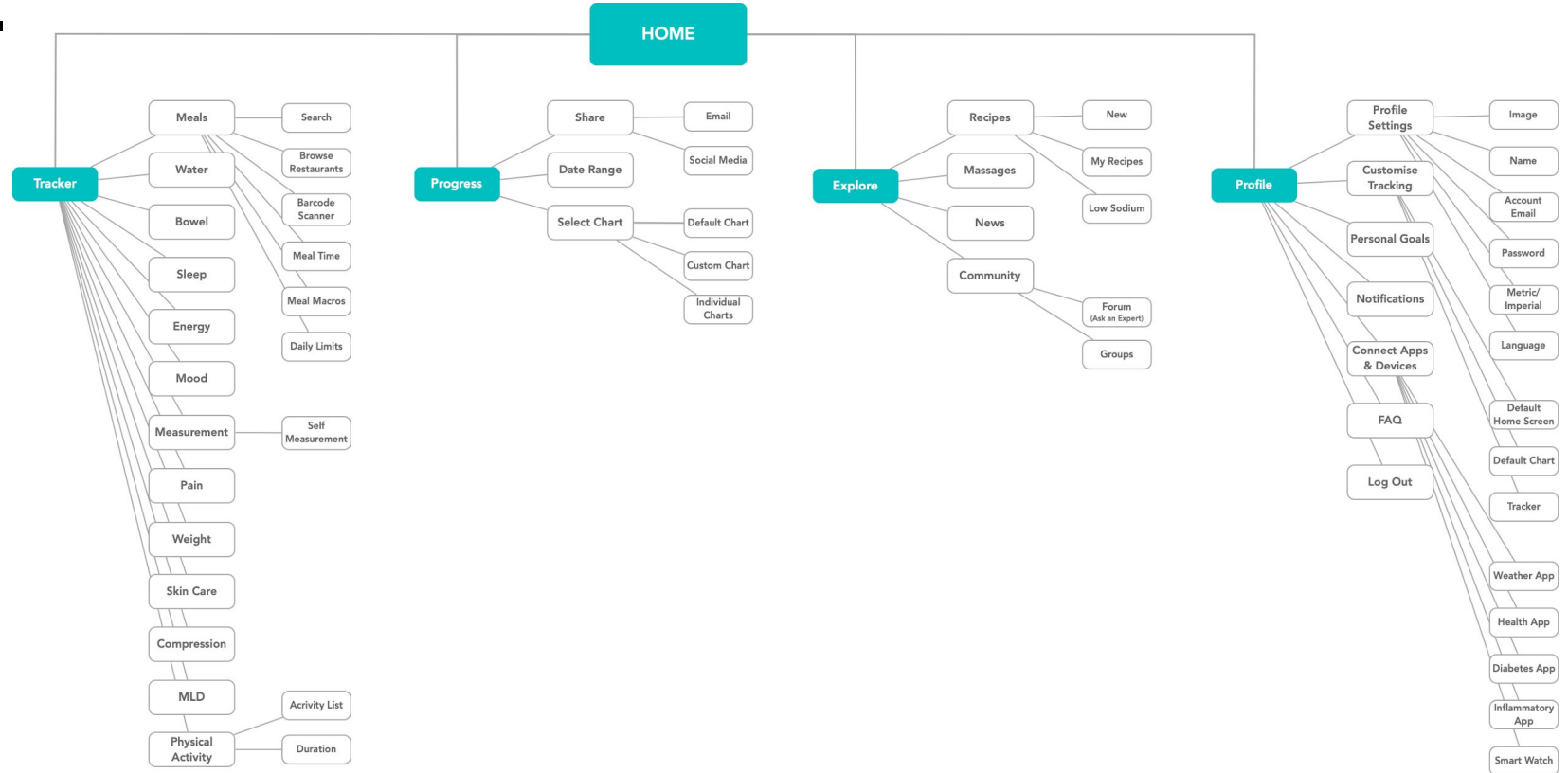
Information Architecture

Information Architecture Journey

Home	Track	Progress	Profile
Today's Goals	Food	Nutrition	My Profile
Calendar	Water	Symptoms	Saved
Community	Exercise	Goals	Customize
Tips	Massage	Export	Privacy Settings
	My Notes		Notifications
			Contact Us

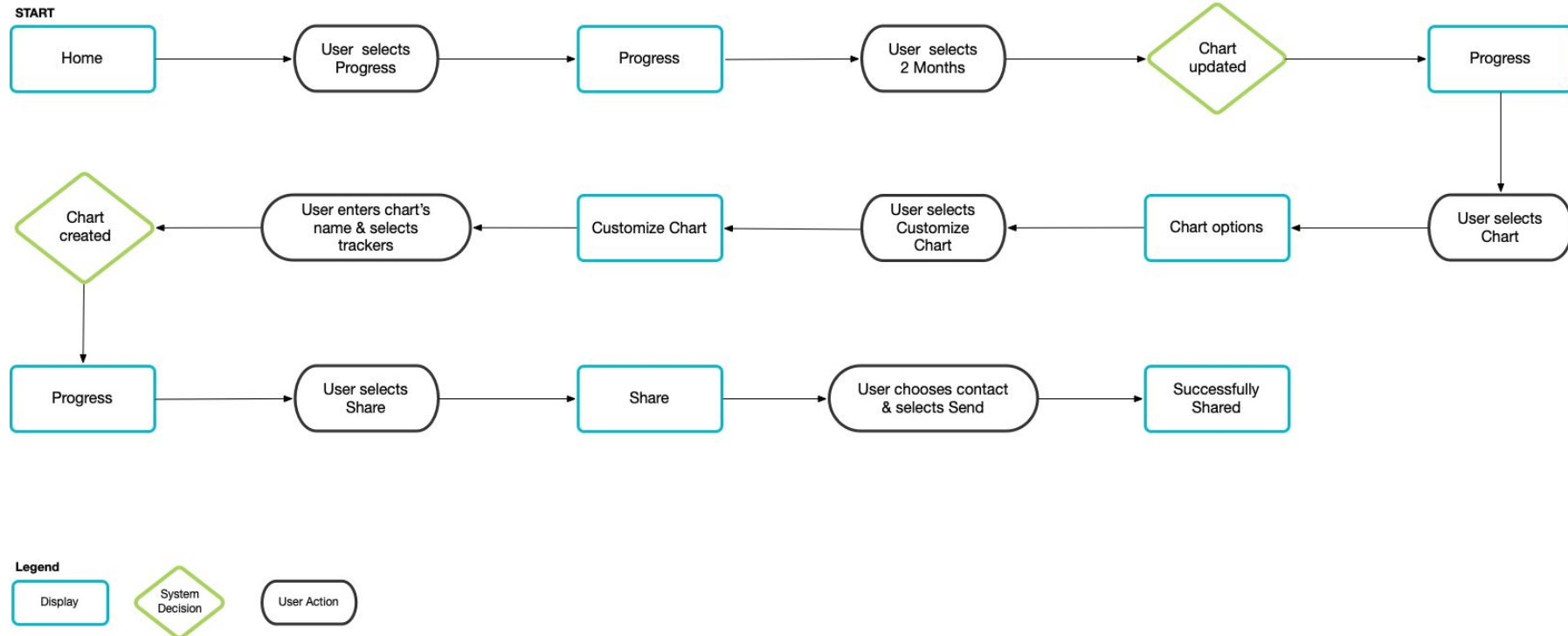


Information Architecture

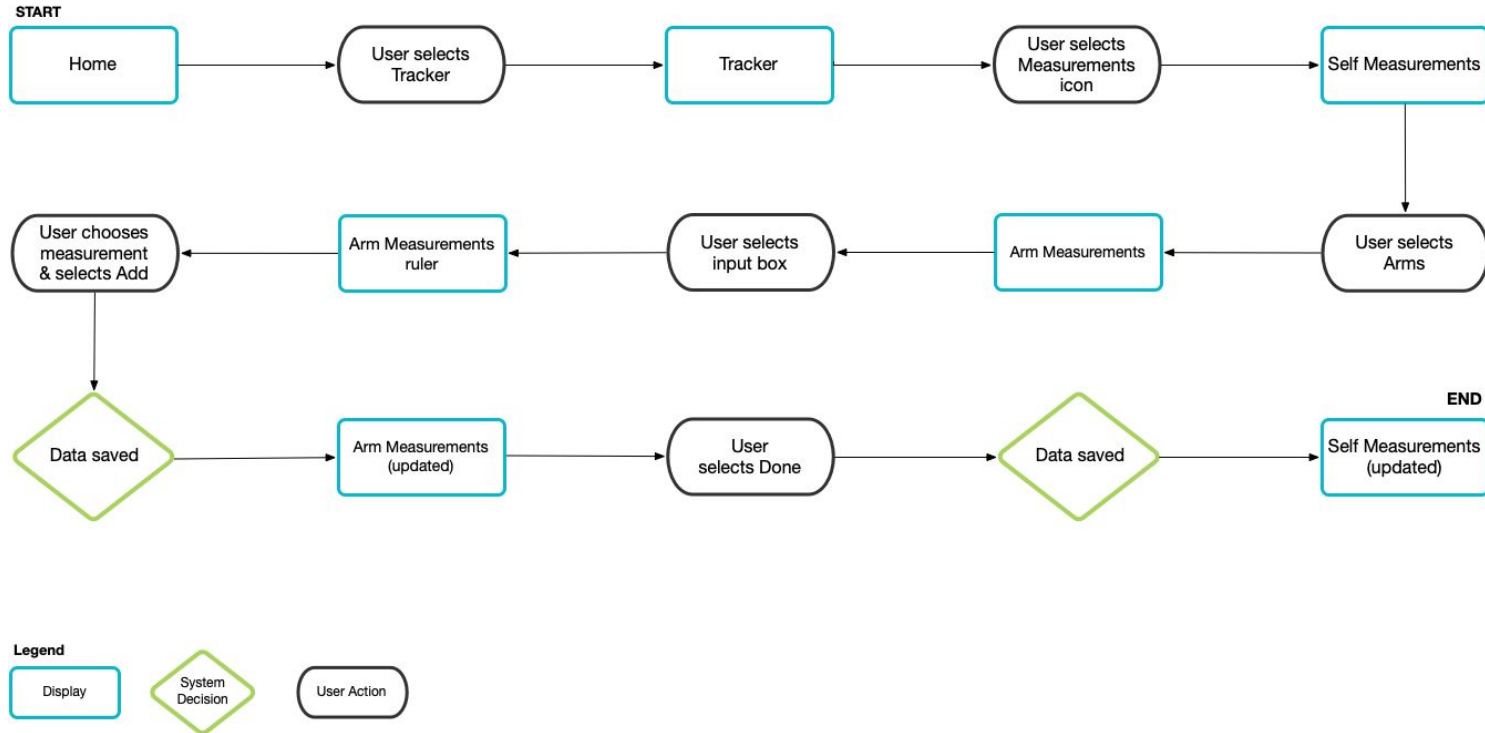


User Flows

User Flow for Task 1 - User creates and shares a custom chart of their progress with their physician.



User Flow for Task 2 - User enters their lymphedema self measurements.



Sketches

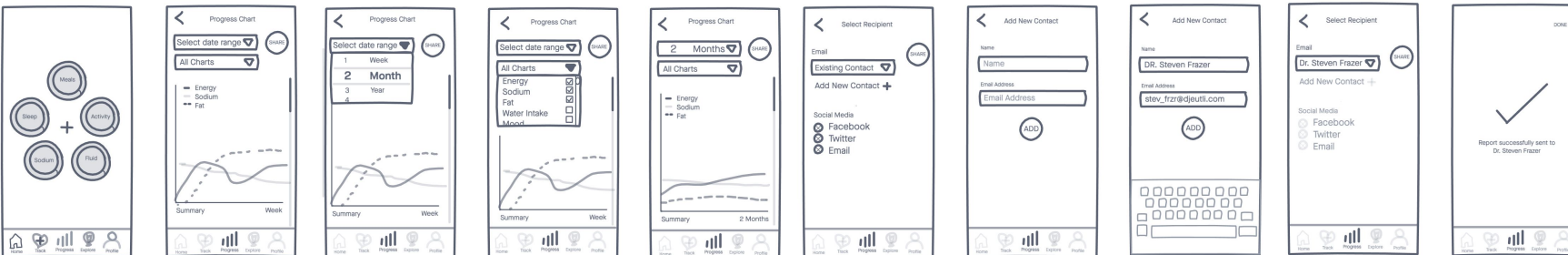
Sketches for Task 1 – User creates and shares a custom chart of their progress with their physician.

Sketch draft 1



<https://marvelapp.com/e6b8964>

Sketch draft 2



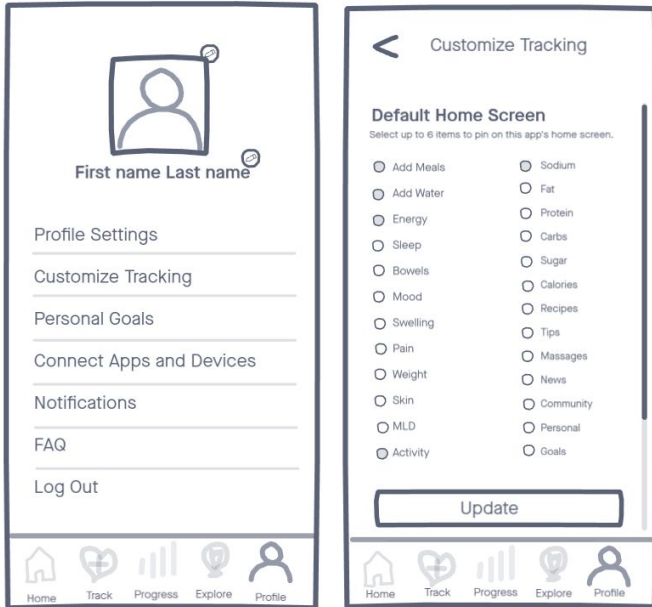
<https://marvelapp.com/73bcf71>

Sketches for Task 2 - User enters their lymphedema self measurements.

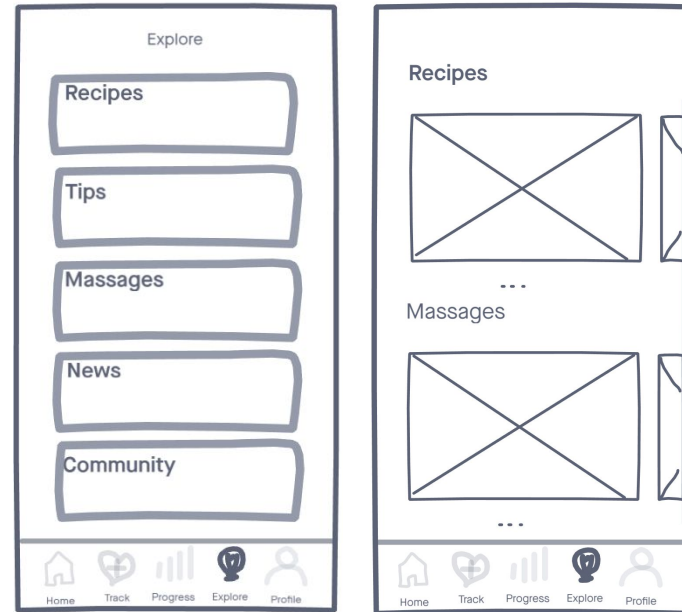


Additional Sketches

Profile page



Explore page



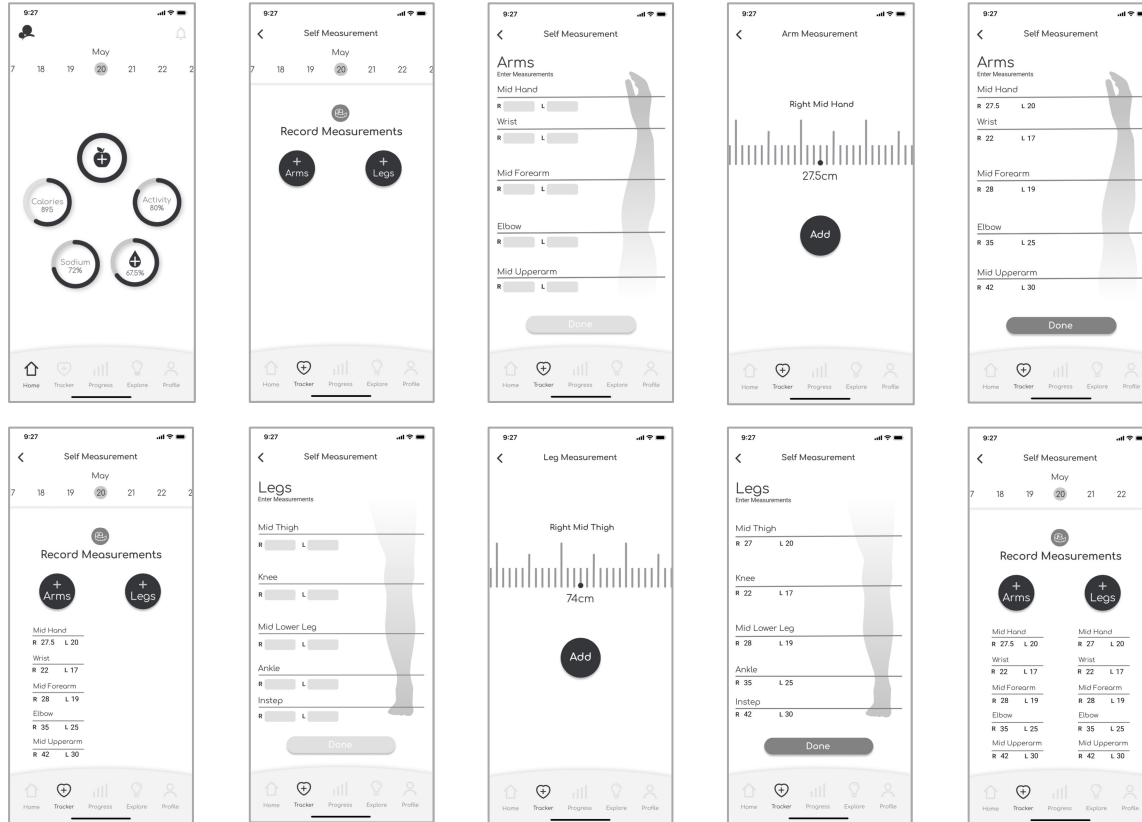
POP Testing Findings

- Buttons should have a clear call to action.
- Share button can be an share icon instead.
- Add shortcut buttons to the home page.
- Add confirmation pages at the end of a task
- Put back buttons only when relevant
- Improve page titles to be simple, clear, informative
- Make sure the phone keyboard doesn't cover the the app page
- Create simple ways to minimise typing
- Make information as concise as possible
- Adjust the order of content on the page by priority

Wireframes



Wireframe for Task 2 - User enters their lymphedema self measurements.



User Testing

User Testing Prototype



User Testing

User Test 1

- What if I only want to fill in 1 arm that's affected?
- Is there a share all option for my charts?
- It's hard to remember how I customized each chart. Is there a way to see what I've tracked in each?
- Is there a way to track water in the same page as tracking my meal?
- How will yes /no tracking show on charts?
- The app is comprehensive & easy to use

User Test 2

- What if I only want to put measurements for my right arm?
- How can I share my measurements with my doctor?
- I usually add water in small amounts (50ml) & how does it show?
- I want to choose the chart's filters before naming the chart.
- Can I share all my charts at once?
- I want to change the order of my trackers because I'll probably only really use 4 or 5 things usually.
- This app has everything I need to track for my lymphedema

User Test 3

- How do I share my measurements? That's not something I see...
- How do I see what I put for each custom chart?
- That's alot of stuff to track. What if I only want to track meals, water, & my measurements?
- Can I send the email to more than one person?
- I'll only really use 3 of the trackers listed.

User Test 4

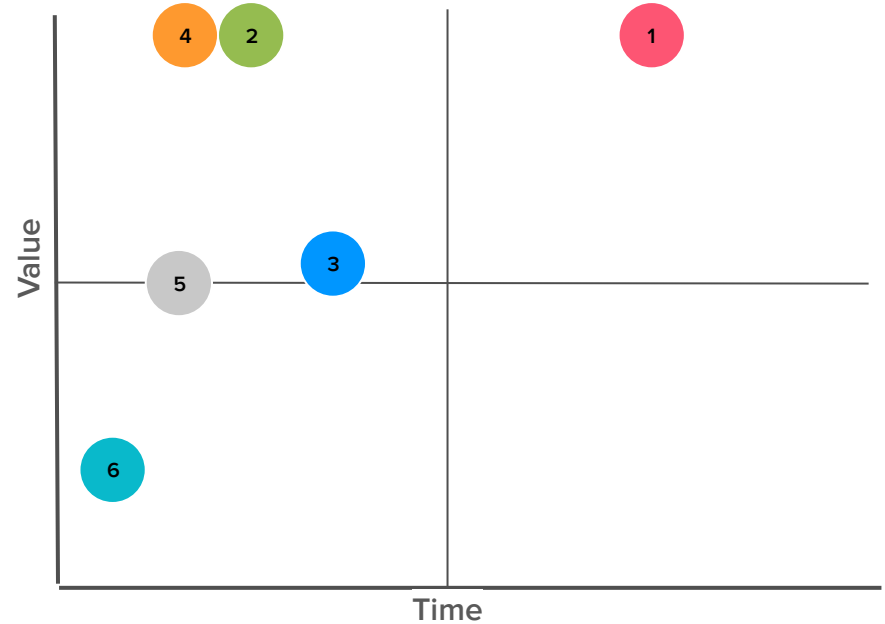
- I want to change the order of my trackers on the tracker page
- What's the point of the progress charts? Will it provide me a diagnosis?
- When I'm choosing how much water to add, the progress circle doesn't change?
- Progress chart - date range has 2 choosable items (# & week/month) but only 1 drop down menu?

User Testing Synthesis

4 user tests conducted.

Key Issues to Resolve:

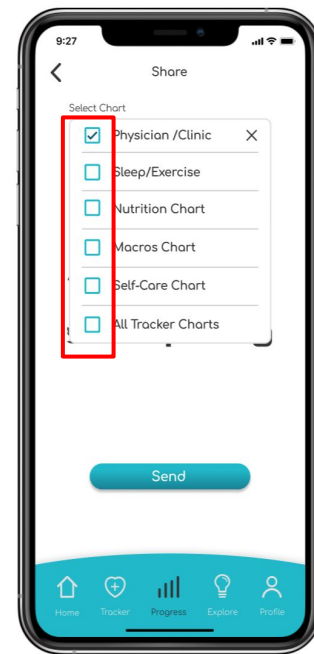
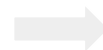
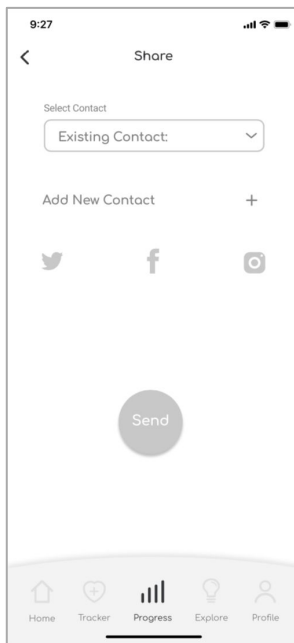
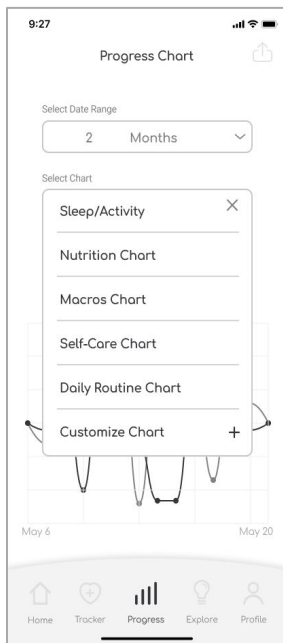
- 1 Share multiple charts at once.
- 2 Make measurements shareable.
- 3 Make the order of trackers editable.
- 4 Allow measurements to save at any point.
- 5 Measurements should show left then right
- 6 Show a preview of how much water will be added.



Resolution

1

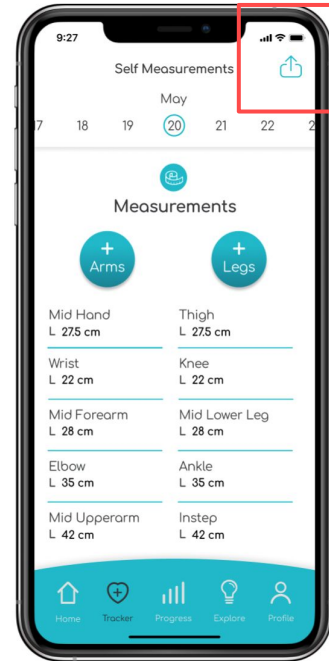
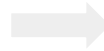
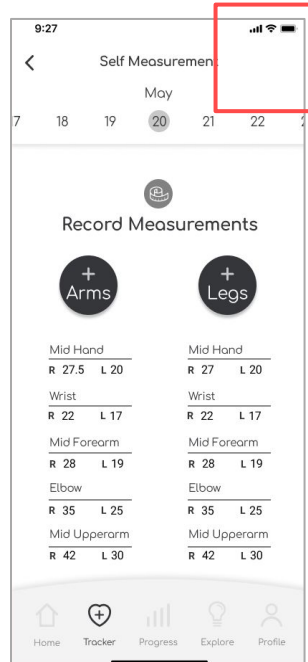
Allow user to share multiple charts at once.



Resolution

2

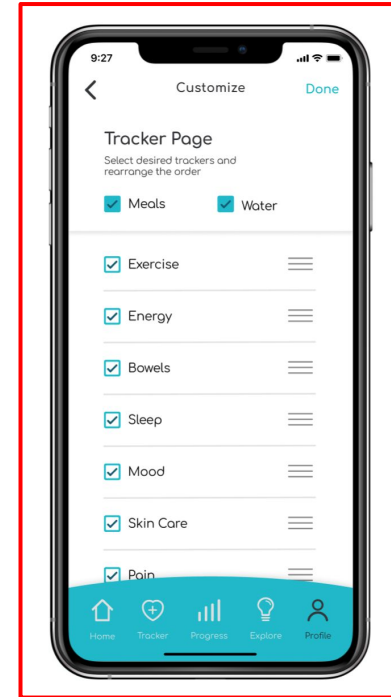
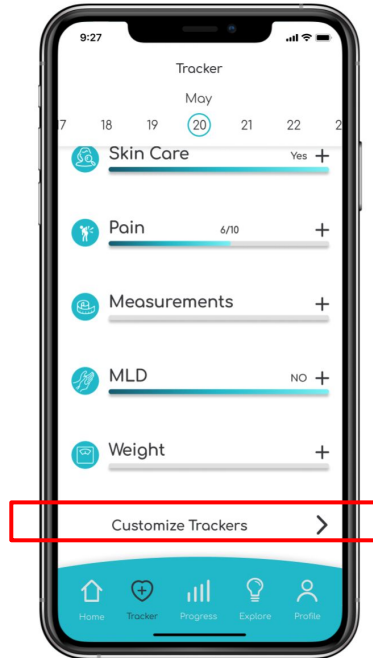
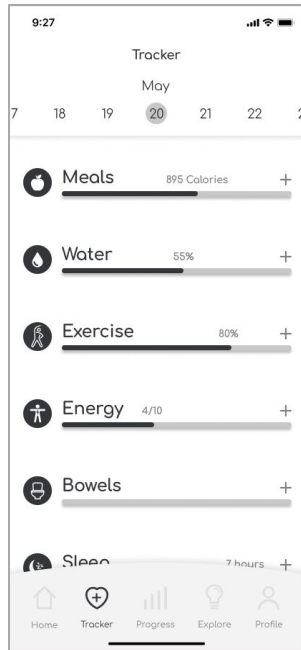
Allow users to share measurements.



Resolution

3

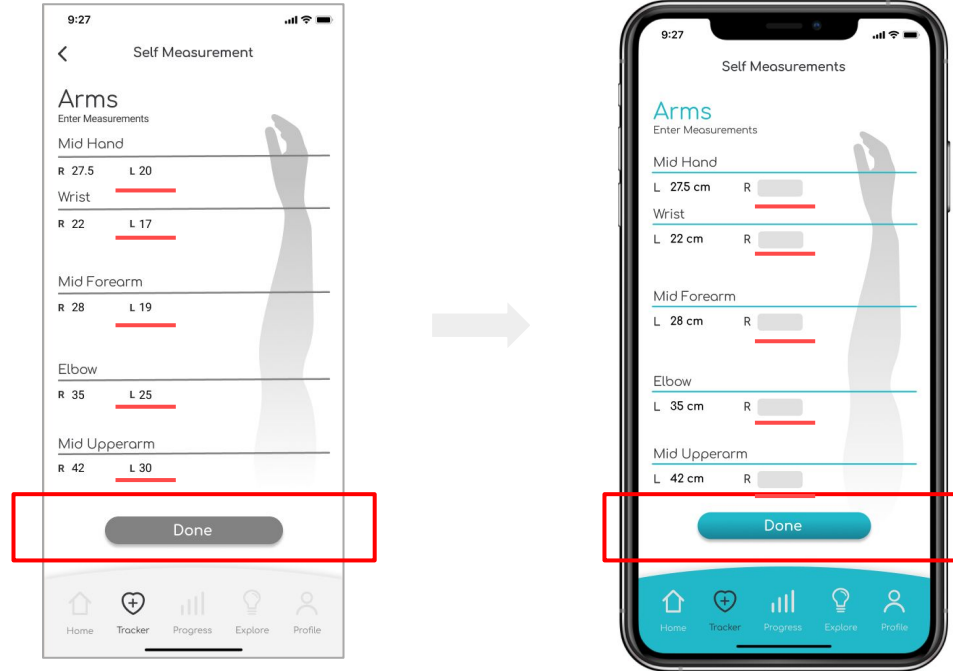
Allow users to edit the items displayed and their order on the tracker page



Resolution

4

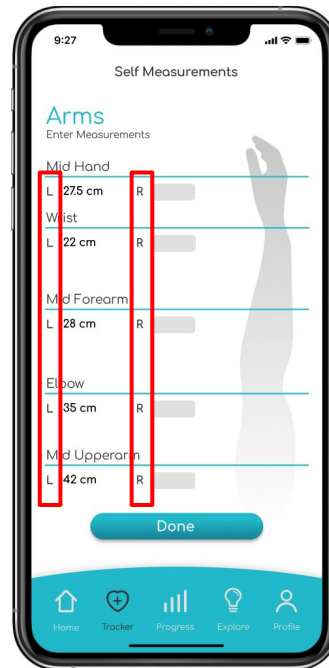
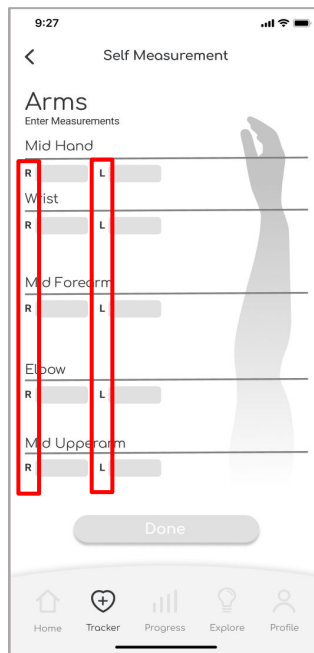
Allow user to save measurements without needing to fill all input boxes.



Resolution

5

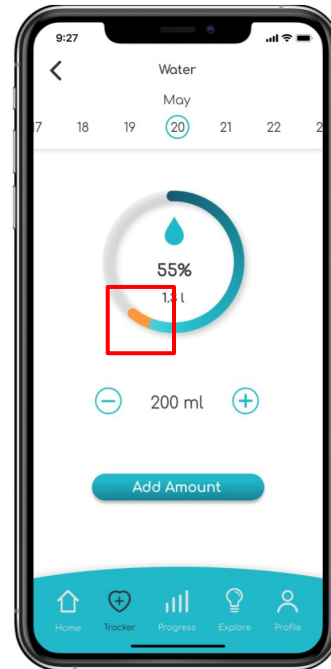
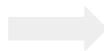
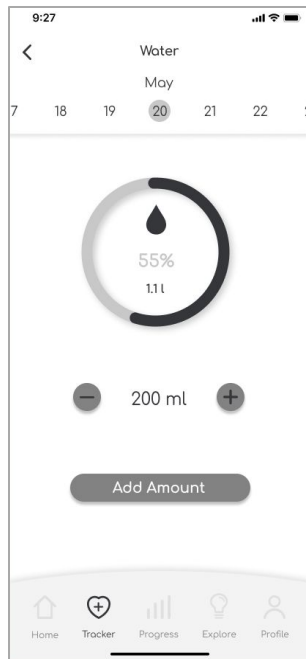
Measurements should show left and then right



Resolution

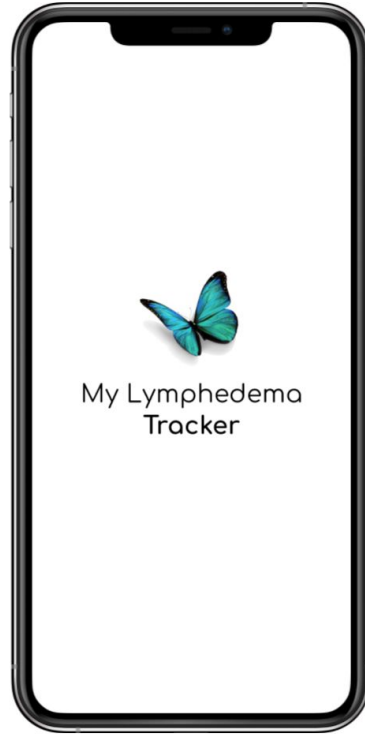
6

Show a preview of how much water will be added.



Figma Demo

App Demo

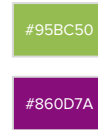
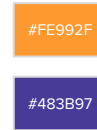
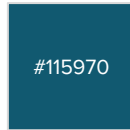
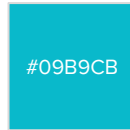


UI Design

Style Guidelines

Colours

Primary Colors



Typography

H1-Header 1
32pt Comfortaa

H3-Header 3
18pt Comfortaa

H5-Header 5
16 pt Comfortaa - BOLD

Icons Titles - 12pt
Comfortaa

H2-Header 2
22pt Comfortaa BOLD

H4-Header 4
18pt Comfortaa - BOLD

H6-Header 6
14 pt Comfortaa

#1-Numbers
18 pt ComfortaaLD


Buttons



Learning Outcomes

Learning Outcomes

- It's much easier to fix issues early, so get as much feedback as possible
- Keep the focus on providing value to the user
- Be consistent and concise with wording and button styles
- Minimize user effort where possible
- Constant testing for feedback is crucial
- Use professional terminology relevant to the user
- Empathy is key
- Quality and quantity are parallels
- Learnability assessment through testing
- Research is essential
- Recognising problems and setting goals
- Approach every task with fresh vision

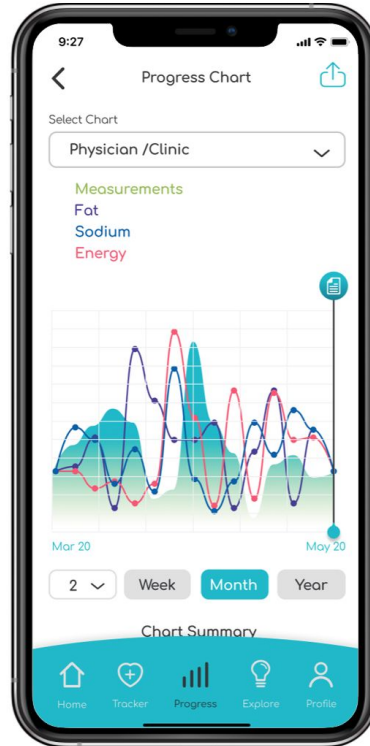


**Constant testing
and feedback is
crucial**

**Dream big
and look for
solutions**

**Keep you focus
on the
user's goal**

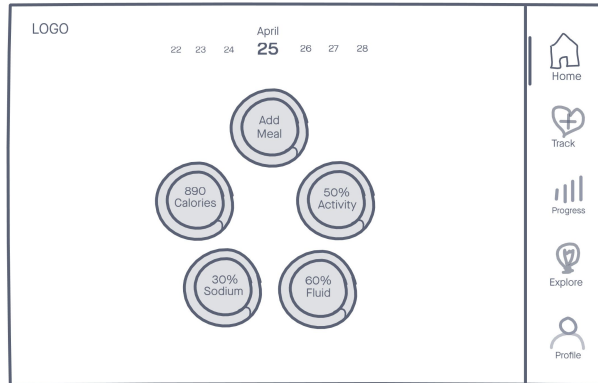
Next Steps



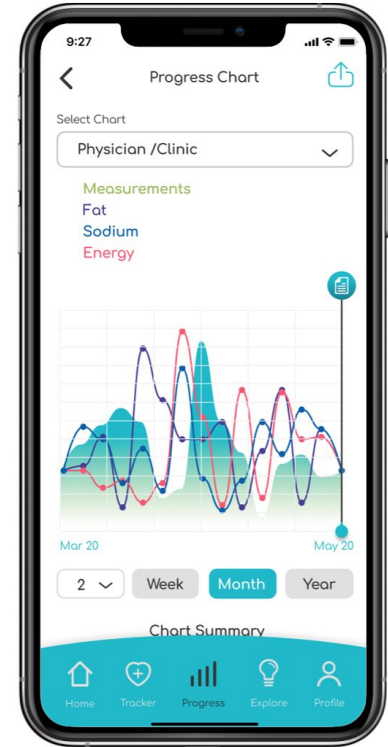
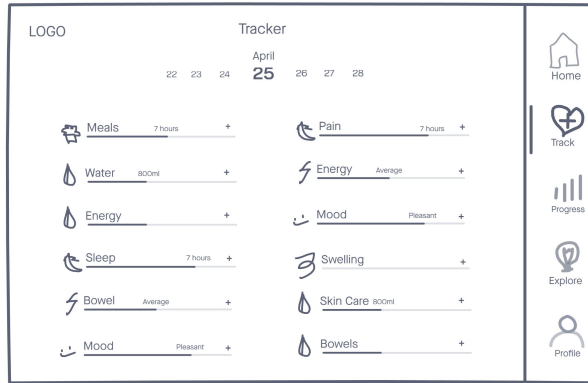
Diagnosis reports screen

Next Steps

- **Add diagnosis reports** that go beyond just charting the user's data, but also synthesizing and informing users of patterns and correlations.
- **Voice UI** - This was a common ask from our user research.
- **Create multi-device layouts** (i.e. for tablet, Smart Watch)
- **Incorporate UX standards** such as accessibility standards



Tablet screen sketches



Diagnosis reports screen

Thank you

Appendix

User Research

Survey

https://docs.google.com/forms/d/e/1FAIpQLSdBouN6jVhFYy9YxrFw6cTgGr1-uKmFfxII8hYMHRnjApjmsA/viewform?usp=sf_link

Interview script

<https://docs.google.com/document/d/1ljUQ0xtX-dq71ArNeQnTSP3k8NGaAnaO4tLg6ZlhT3c/edit?usp=sharing>

Raw interview notes

<https://docs.google.com/document/d/11f7UZ4iL-tSYUumlDnLsPj5mM70Ooe-xklRsZyUByfs/edit?usp=sharing>

Research synthesis

https://docs.google.com/document/d/1uAcHJWA_KS9YEjRWjvQojuWSrkiUeJJxWwuUMlplYck/edit?usp=sharing

User Testing

Test script

https://docs.google.com/document/d/1-JGBwgrZ-EAP7HZ_AoiPI9AhVjl5vl_Rvl_CH6QBls/edit?usp=sharing

Appendix Continued...

Sketches

Sketches of creating & sharing progress charts (task 1):

https://projects.invisionapp.com/freehand/document/YkAZD8O6u?fbclid=IwAR0gfNWMeYw52AugFQmydA63hc0lcfYY8dNhMPn6la6lqd2n9s_xKg-Y6c

Sketches of tracking measurements (task 2), meals, & water:

<https://projects.invisionapp.com/freehand/document/WOL3F0aPf?fbclid=IwAR2P47enleUieB0qwM6VENzDI6ChbCnixbi31kcCaUOcHJj6jih6ZVje62U>

Additional sketches of Profile & Explore pages

<https://projects.invisionapp.com/freehand/document/J2Zs9RkwD>

POP Prototypes of Sketches

Creating & sharing progress charts (task 1):

Draft 1 <https://marvelapp.com/e6b8964>

Draft 2 <https://marvelapp.com/73bcf71>

Tracking measurements (task 2): <https://marvelapp.com/11aee5ge>

Appendix Continued...



Figma Prototypes

Prototype for user testing

<https://www.figma.com/proto/HanLxIOAy4LeLNyw79Ms5J/Lymphedema-App-UX-Design-Before?node-id=0%3A43&scaling=scale-down>

Final prototype

<https://www.figma.com/proto/3YpJmQo6y0Oh5eSvMI1B4b/Lymphedema-App-UX-Design-final?node-id=0%3A43&scaling=scale-down>