Kshitij Anand, Nayanika Goje, Samiha Essakhi

Winter 2024

Cura

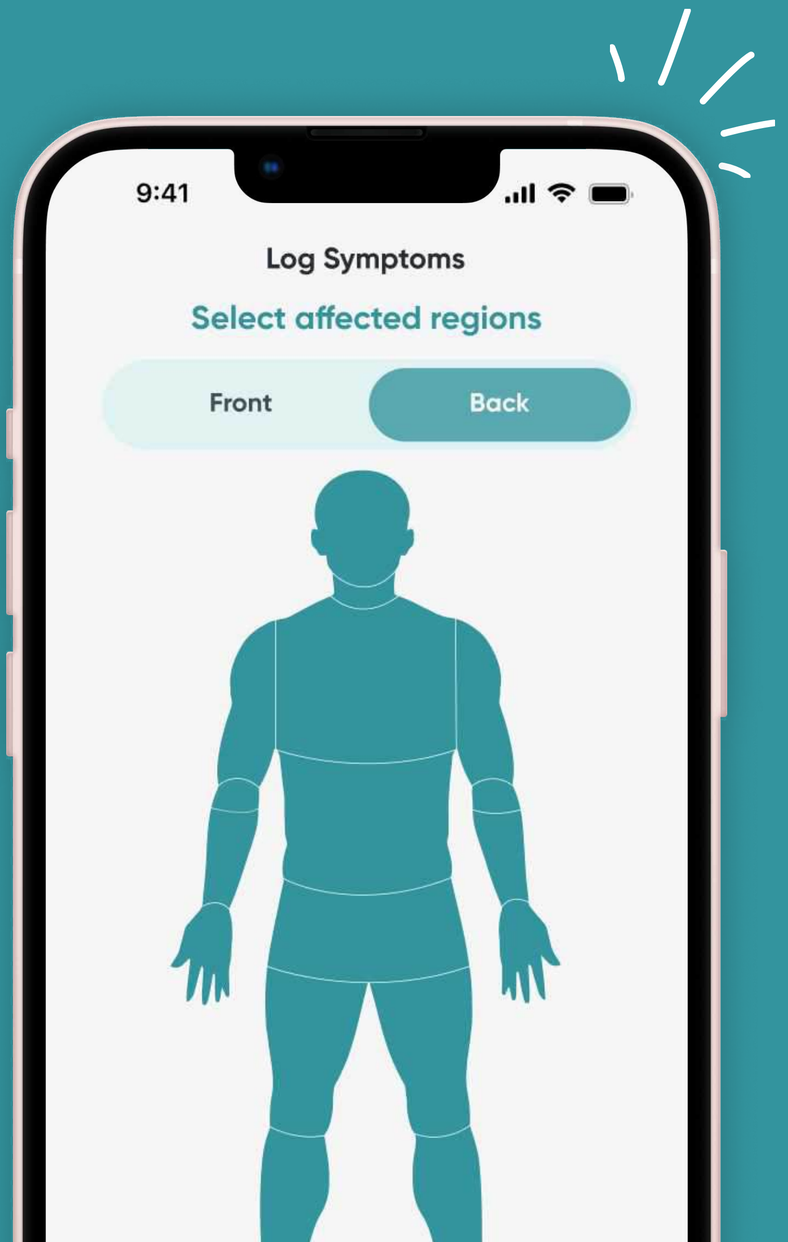
Comprehensive Health Tracking for Eczema Management

Advised by Prof Anastasia Kuzminyk

Product Research Coach: Alexandra Watral, PhD



Use your left-right arrow keys to navigate through the case study



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The Problem

The Eczema Challenge

Individuals coping with eczema face both physical discomfort and the emotional burden of stigma and insecurity from visible skin conditions.

Stigma and insecurity worsen the challenges of visible skin conditions, impacting patients' well-being and leading to social struggles beyond eczema's physical effects.

The Solution

CURA

CURA empowers eczema sufferers by tracking symptoms, triggers, and routines, offering personalized care plans and insights for better symptom management.

It also improves communication with healthcare providers, ensuring effective treatment, while also fostering a supportive community for users.

Phase One

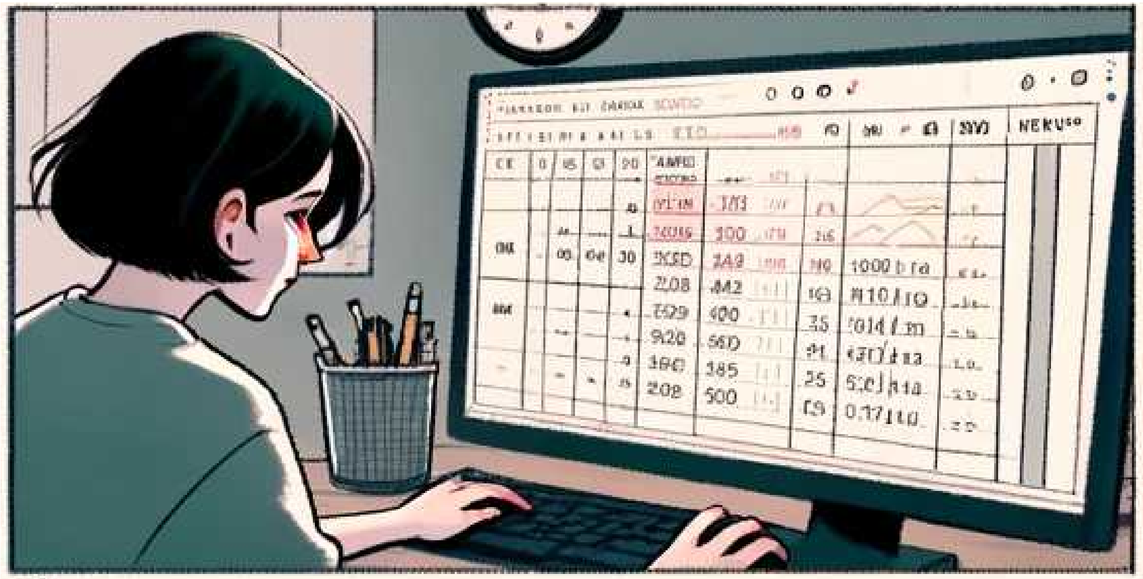
Problem Identification

Meet Zoe



"I want to take control of my eczema, not just cope with it. Tracking helps me see the bigger picture and makes me feel empowered in my journey"

The Excel Expedition



1. **Use of Excel sheets:** Tracking different elements with the hope to uncover trends & patterns
2. **Unorganized tracking:** Tracking is done randomly whenever she feels like it

Lost in Translation at the Doctor's Office



1. **Unnecessary Tracking Elements:** Tracking elements that do not serve the doctor to provide a better diagnostic and insights into the cause of symptoms

Eczema's Hidden Cost: Isolation and Stress





1. **Further Financial Strain:** The trial and error process is costly
2. **Stigma and Lack of Support:** The surrounding environment doesn’t necessarily speak the “same language” and undermines the severity of the condition

Research Goals



Understanding Daily Battles

Understanding Daily Battles

Identifying Gaps in Care

Understanding Daily Battles

Identifying Gaps in Care

Bridging Communication

Understanding Daily Battles

Identifying Gaps in Care

Bridging Communication

Empowerment Through Tracking

Research Question

RQ 1: What are the current practices and routines that individuals with eczema employ in their daily lives to track symptoms, and what challenges do they encounter in the process?

RQ 2: What motivations and background considerations drive individuals with eczema to engage in tracking processes related to their symptoms, triggers, and treatment adherence and effectiveness?

RQ 3: What specific expectations do doctors and patients have regarding symptom-reporting sessions during clinical visits?



Digital Ethnography

Reviewed 70 reddit threads, in addition to blogs



Existing Solution

Analyzed 3 competitors



Heuristic Analysis

Conducted Heuristic Evaluation using Nielsen's 10 heuristics



Expert Interviews

Interviewed a Dermatologist and Subject Matter Experts



ipiercemycow OP • 8y ago

I write down every meal and every ingredient in the meal (but not quantities of the ingredient) this also helps me avoid eating processed food, because the ingredient lists get quite lengthy!

Another thing I write down is current medications/supplements used.

Amount of sleep.

General health...do I have a cold? Am I feeling great other than the eczema/allergies?

Cheers to making your own! Please post it on here when you're done with it.

1 Reply Award Share •••





Admirable-Midnight85 • 10mo ago

I'm 23F and just like you, I've been struggling with eczema since I was born. My eczema was super severe from ages 13-17. After that my eczema went away but all of a sudden since August this year my eczema has come back aggressively. I remember feeling EXACTLY how you are feeling now. I would also only wear long sleeve shirts during the summer time and when my eczema was on my neck, I wore turtle necks. It's hard, being a teenager and thinking about what people would think but just like the post above, it does get easier . Even though my eczema is super severe right now, no one has made a comment except asking what it is. After I explain it's eczema, they leave it alone and treat me no different than other people. What helped me in high school were my family and friends, because they never treated me differently or was ever grossed out by the bleeding, flaking, oozing of my skin. The guy I am currently dating doesn't care about my eczema at all, he likes me just as much as when I didn't have a flare up. It's super important to not only build a routine to treat your eczema, but also to build your confidence because once you stop caring what other people think, mentally you feel MUCH better, and it can even show improvement in your skin. I hope this helps! I'm along this eczema journey right with you :)

iis also helps

3 Reply Award Share •••



Belleto416 • 3y ago

ps

Eating seafood, using cheap hand soap (I use Cetaphil baby calming wash, works great), I find if I lotion my hands too much causes a flare up so I only lotion them twice a day, cleaning solutions (always put gloves) changed my detergent, body wash, hair product, all hygienic products to all natural stuff, and last tap water.

I've suffered from eczema for 15 years now.... it use to be so bad, tropical cream didn't make it go away permanently only temporary. I've been super aware of what could cause my flare outs and i've nailed it because my eczema reduced by 90%. Keeping track of what could trigger your eczema is the best thing, then you can avoid all those possible flare ups.

3 Award Share ...

Competitive Analysis

1. The **lack of integration with wearables** as a common weakness was identified. CURA will bridge this gap with full compatibility across wearable devices.

2. While some apps **lack community support features**, Cura is building a robust platform for community interaction.

	EczemaWise	Proton Health	Skinsafe	EczemaLess
Strengths	Comprehensive eczema tracking with science-based methodologies.	Access to expert Skin Coaches for support and guidance.	Robust identification of potential allergens.	AI-driven skin analysis provides instant severity ratings.
	Inputs from both the eczema community and physicians ensure a user-centric approach.	Itch-Scratch Programme for discovering and reversing itching habits	Community engagement features promote knowledge sharing and support.	Comprehensive tracking of triggers, treatment, and symptom severity.
	Variety of features for symptom, trigger, and treatment tracking.	Skincare Routine tracker, Photo journaling, and Guided CBT Sessions.	A User-friendly interface ensures accessibility for diverse user segments.	Efficient report generation and sharing for communication with healthcare providers.
Weaknesses	Lack of integration with wearables limits automatic symptom tracking convenience.	Lack of integration with wearables limits automatic tracking capabilities.	The need for a more comprehensive product database could limit user options.	Limited customization options might restrict user-tailored experiences.
	The absence of community support features restricts user interaction and shared experiences.	The absence of a comprehensive database for safe/unsafe products may hinder user safety.	Reliance on user-generated content might impact the accuracy and reliability of information.	The absence of child-safe features could deter families from seeking a comprehensive eczema management solution.
			Lack of clear disclaimers regarding its role as a supplementary tool rather than a substitute for professional medical advice	Difficulties in tracking smaller regions could impede accurate assessment for some users.

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Design Guidelines



The system should enable tracking of related information

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The system should provide insights into inter-element interactions

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The system should include a communication space .



The system should enable tracking of related information



The system should provide insights into inter-element interactions



The system should include a communication space



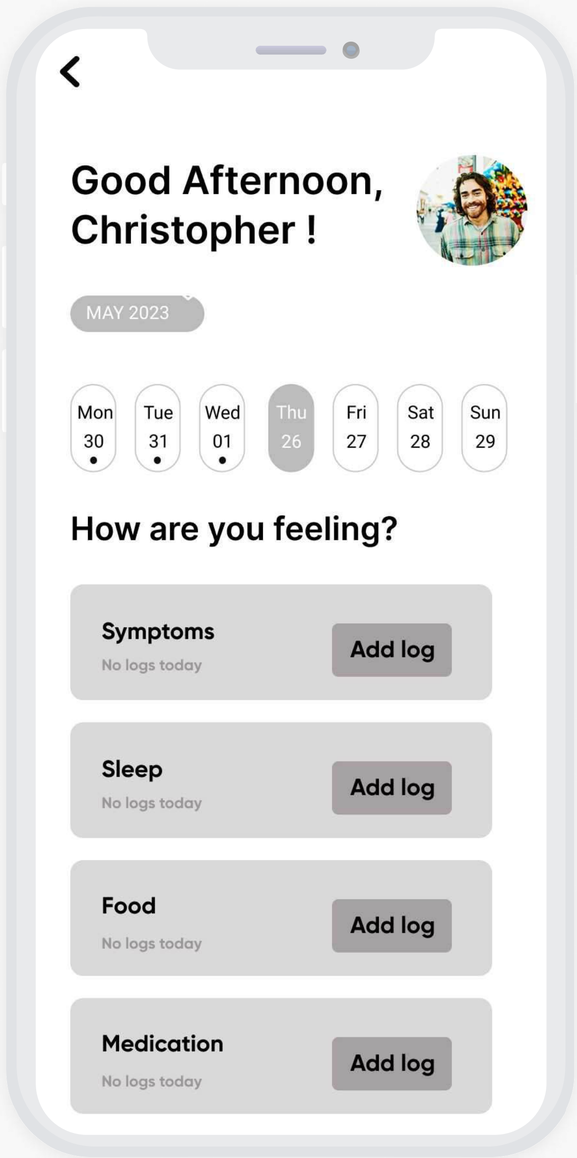
The system should generate a synthesized report

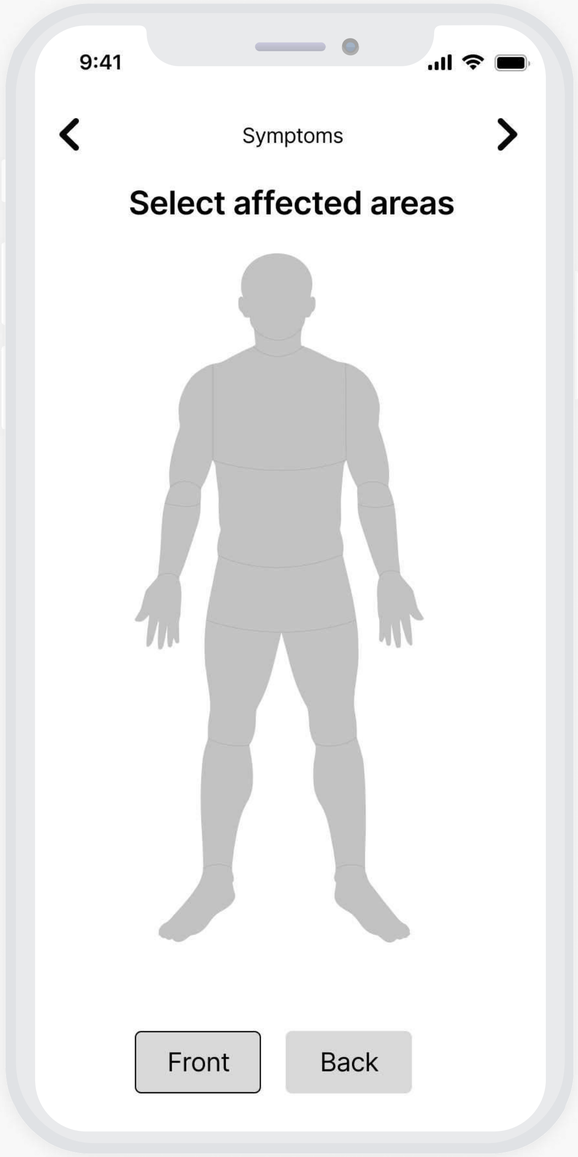
Medium Fidelity Designs

Symptom Logging

1. Ability to track various aspects of their health and daily habits which include **Symptom, Sleep, Medication, Triggers, and Food .**

2. Users can **tap different body parts** on the screen to log symptoms in specific areas.

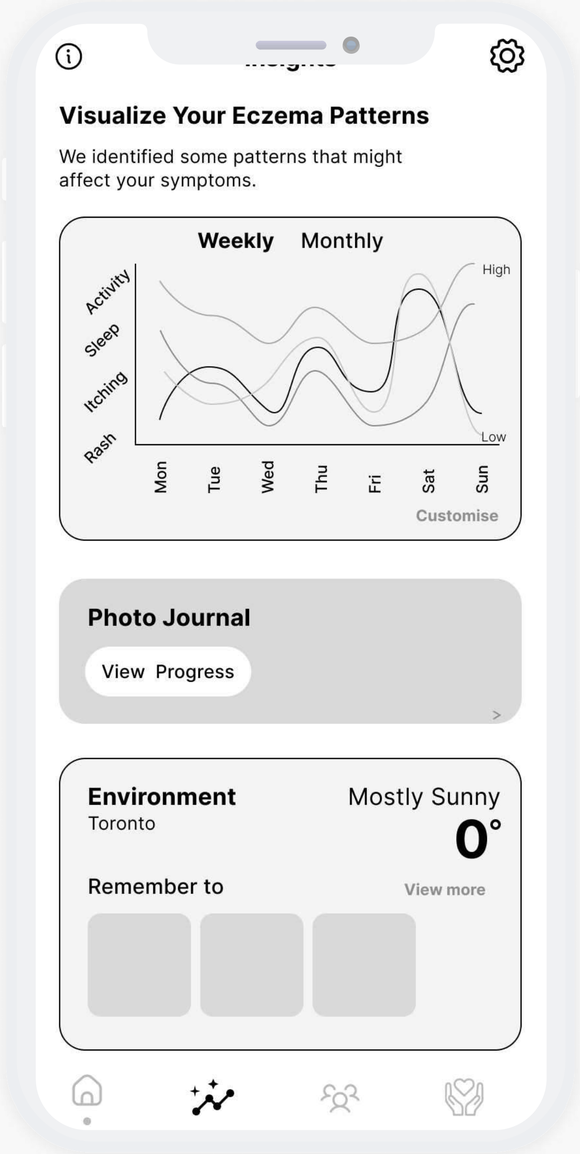


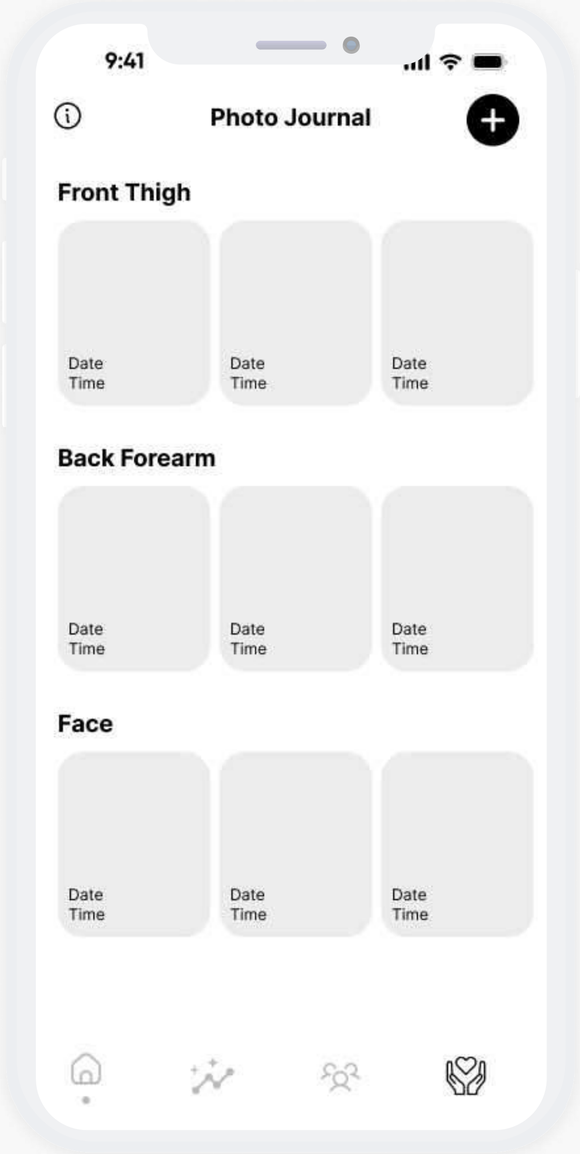


View Insights

1. Users can customize and explore how different elements interact with eczema symptoms for detailed analysis.

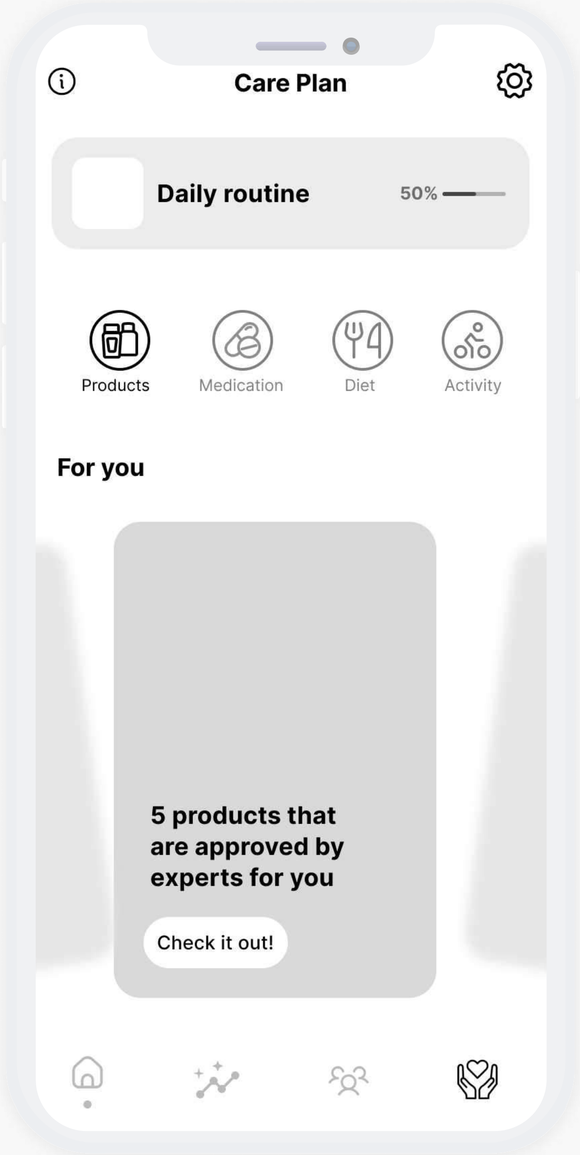
2. Photo Journal provides a streamlined way to visually document the eczema symptoms over time.

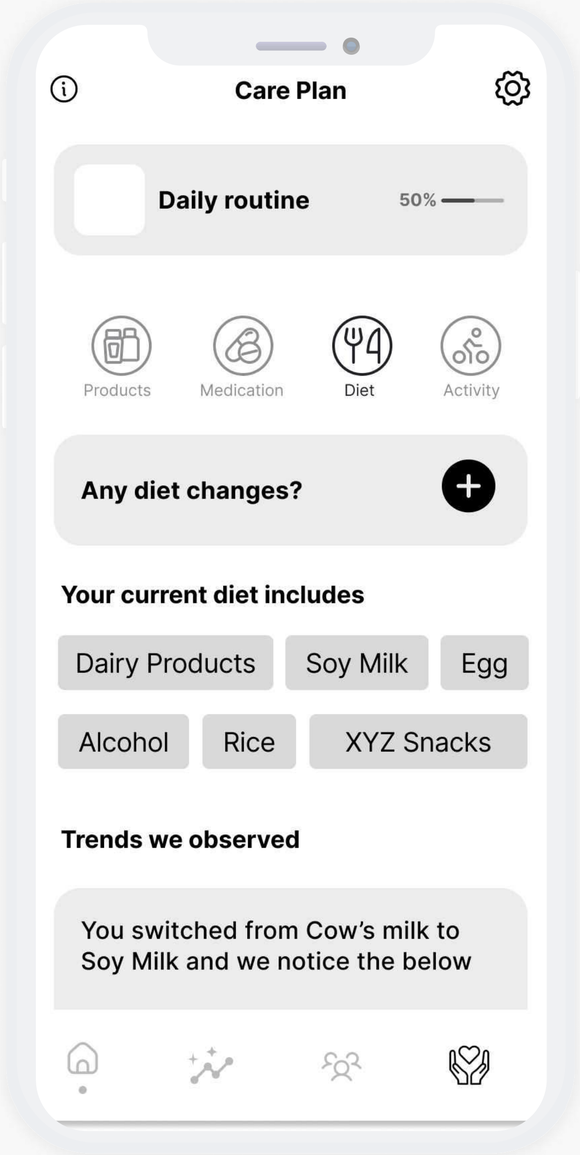




Care Plan

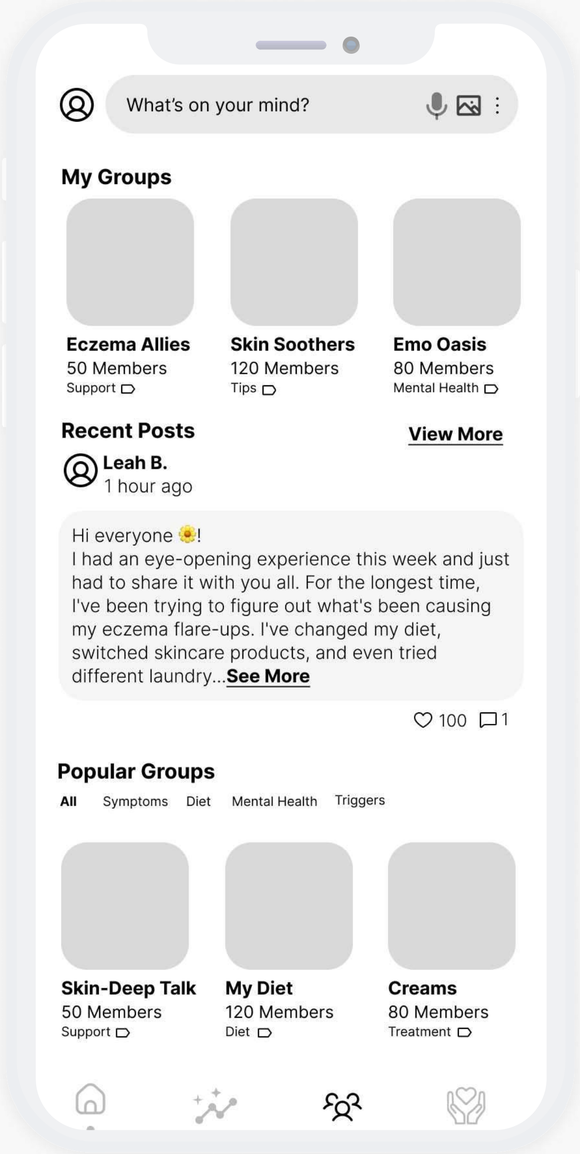
1 The Care Plan is a comprehensive feature designed to support users in managing their eczema by providing a personalized and structured approach to their daily routines and treatments.

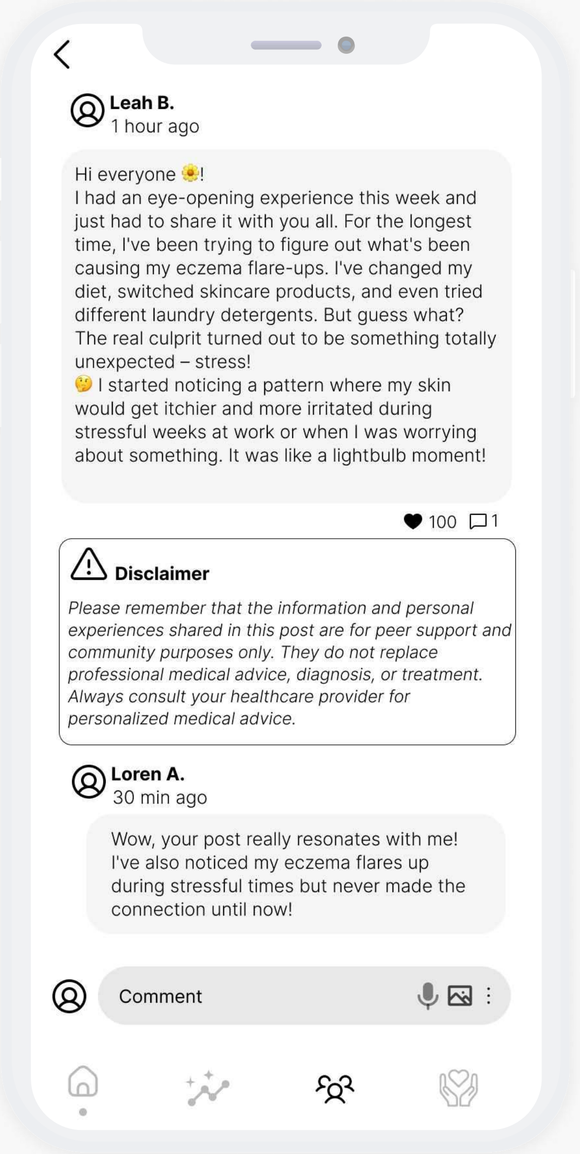




Community

1 The Community feature in the app provides a space for users **to connect, share experiences, and seek support** from others dealing with eczema.





Expert Feedback One



Age and Affected Areas

The expert highlighted the significant role played by age when it comes to eczema variations and affected areas.



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Family History

Family history plays a crucial role in managing eczema, with a focus on five key factors: asthma, allergies, rhinitis, eczema, and dry skin.



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Stress & Menstrual Cycle

The expert highlighted stress and the menstrual cycle as significant triggers for eczema symptoms in female patients.



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The expert highlighted stress and the menstrual cycle as significant triggers for eczema symptoms in female patients.



Alert System

To enhance proactive healthcare management, the expert suggested the implementation of an alert system.

Revised Design Guidelines

Based on the expert's feedback, I wrote a revised set of design guidelines that was incorporate into our prototype.

Original Guideline/Subguideline	Addition
Design Guideline 1: Tracking of related information → **Subguideline 1:** Symptom and Trigger Tracking	1. The system should ensure age-specific considerations in tracking symptoms across various body areas. 2. The system should include stress indicators and menstrual cycle tracking for females to identify potential triggers.
Design Guideline 2: Customization → **Subguideline 1:** Allow customization of what is being tracked	Prioritize the display of symptoms and medications.
Design Guideline 2: Customization → **Subguideline 2:** Accommodate various input modalities for tracking data: Allow users to input information through text, voice, or images, recognizing that individuals have different preferences and may find certain modalities more convenient.	The system should ensure that users keep a photo journal that reflects their condition efficiently by providing a step-by-step guide to show them the correct way of taking pictures.
Design Guideline 3: Insights on Inter-Element Interactions	1. The system should include family history elements (Asthma, allergies, rhinitis, eczema, and dry skin) into inter-element analytics for a more comprehensive understanding of eczema dynamics. 2. The system should incorporate proactive health management through an alert system that notifies users if their symptoms worsen despite regular medication intake.
Design Guideline 5: The system should generate a synthesized information report with photo illustrations of patients' conditions since the last appointment.	The system should prompt users to fill out the Dermatology Life Quality Index (DLQI) before scheduled appointments.

Phase Two

How Might We Statement

How might we empower individuals with eczema to improve their condition's daily management and healthcare communication?

Introducing

CURA

Pivotal Point #1: Inefficient Self-Monitoring

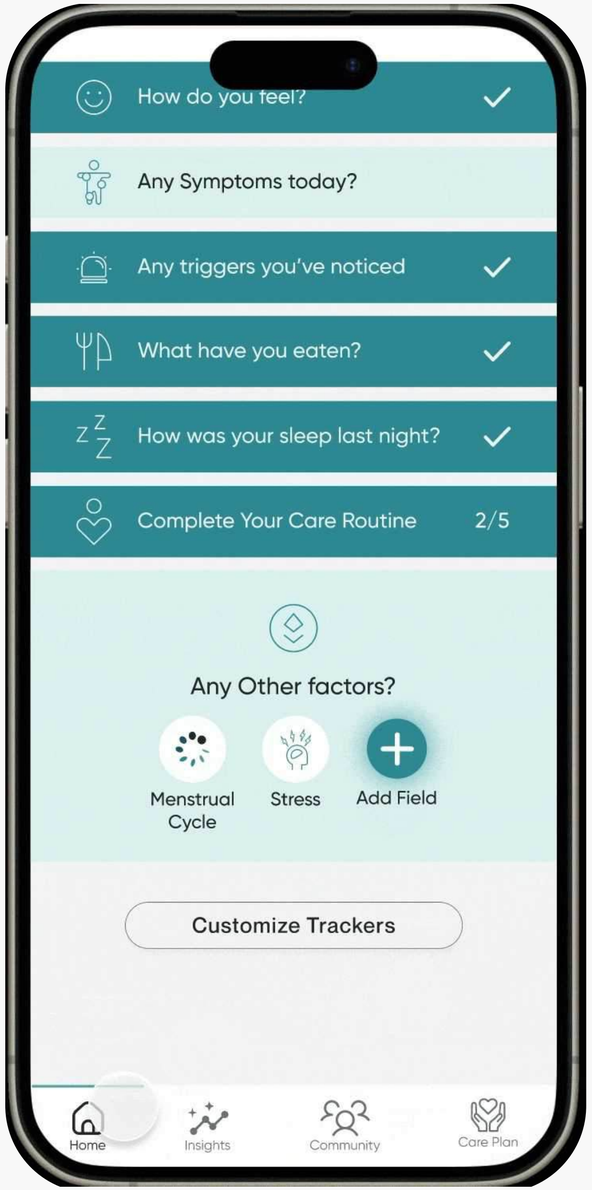
Comprehensive Tracking & Personalized Care Plan





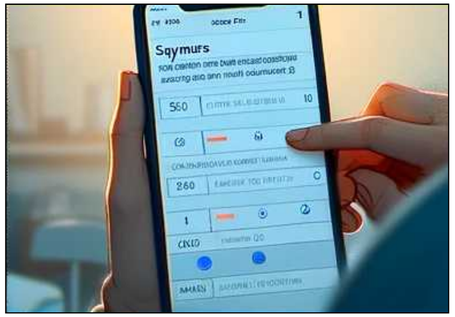
1. **Comprehensive Tracking:** Effortlessly log symptoms, triggers, daily routine and more with just a few taps.

2. **Personalized Care Plan:** Receive a customized care plan that adapts to your unique needs and patterns.



Pivotal Point #2: Lack of Insightful Communication

Personalized Insights



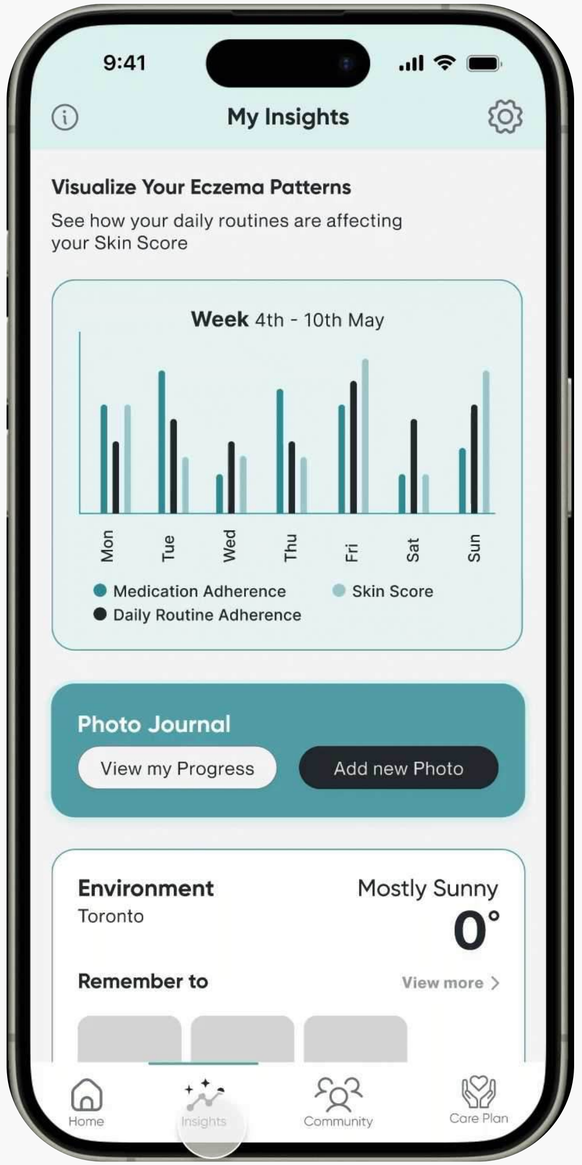




1. **Actionable Insights:** Discover patterns and triggers with CURA's intelligent analysis.

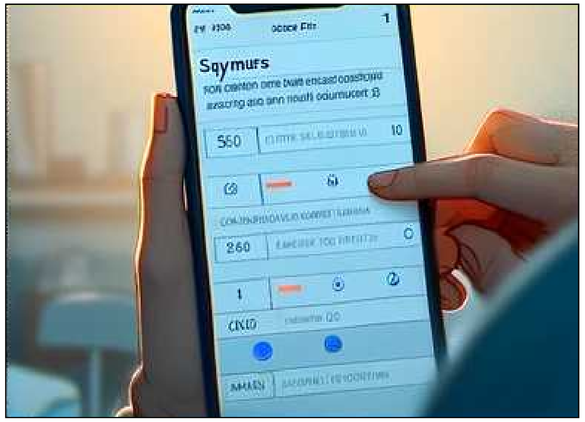
2. **Proactive Alerts:** Receive timely alerts to consult a healthcare professional if your condition worsens, despite good medication adherence.

3. **Easy Report Sharing:** Share comprehensive and easy-to-understand reports with your doctor.

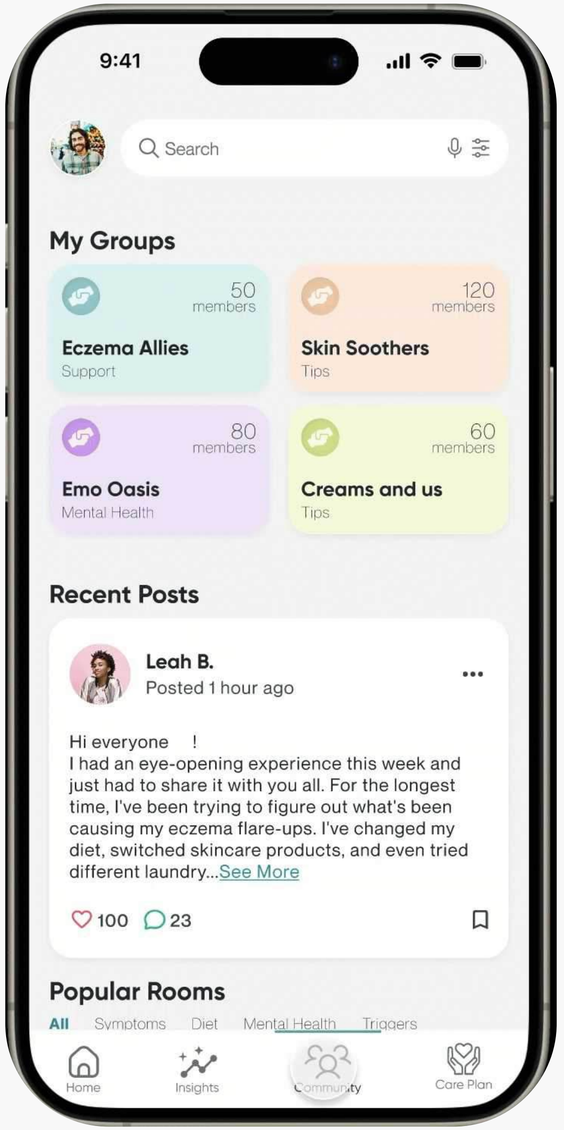


Pivotal Point #3: Isolating Experience

Building Community & Support



1. **Engaged Community:** Join a supportive network where you can share experiences, seek advice, and feel understood by others who truly get it.



Iteration One

Improved Onboarding

1. The app's onboarding now includes **age, family history, and gender** to personalize the user experience based on dermatologist recommendations.

2. We have expanded our tracking system to include **stress indicators** and, for female users, the ability to **track menstrual cycles**.

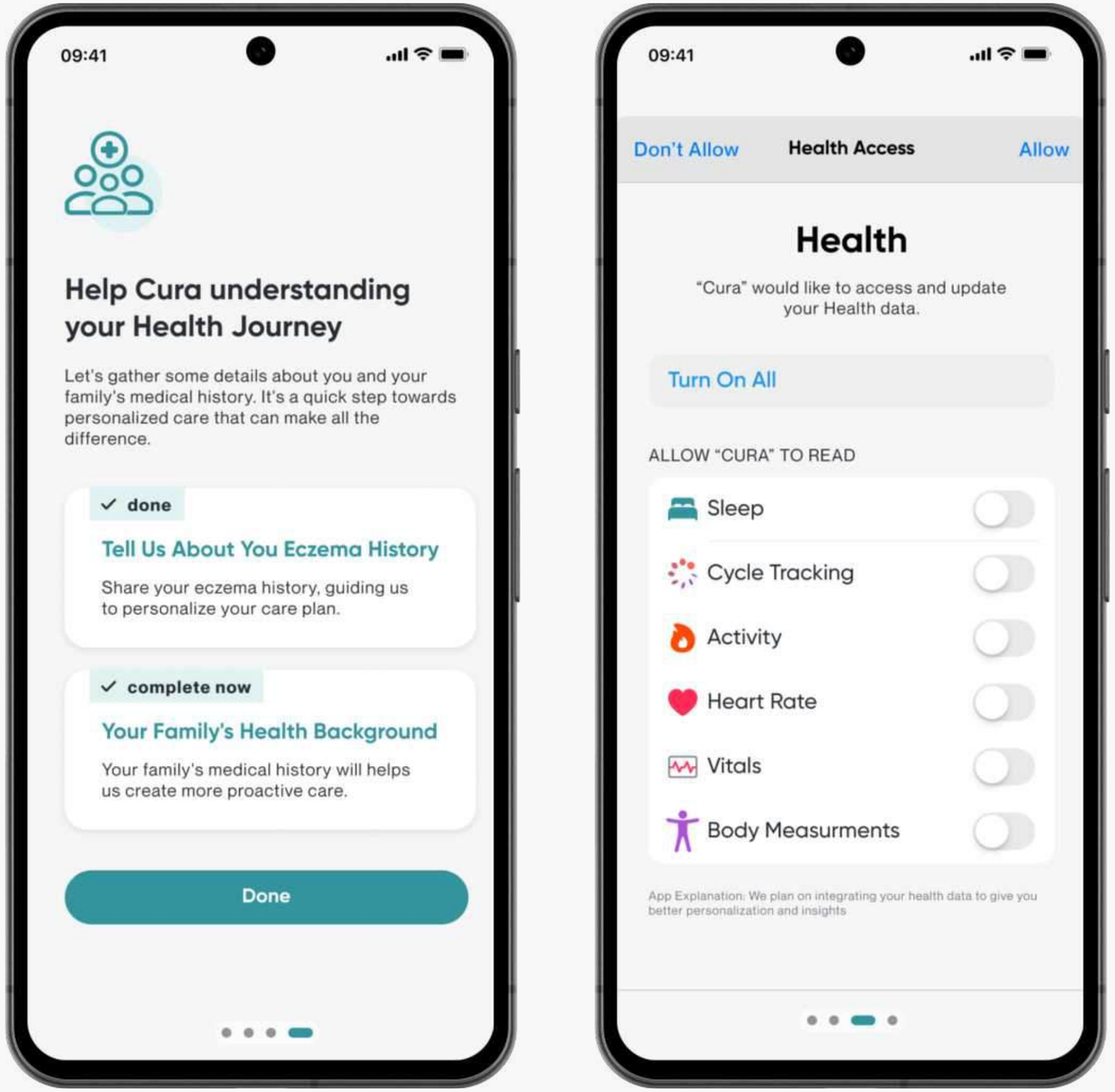
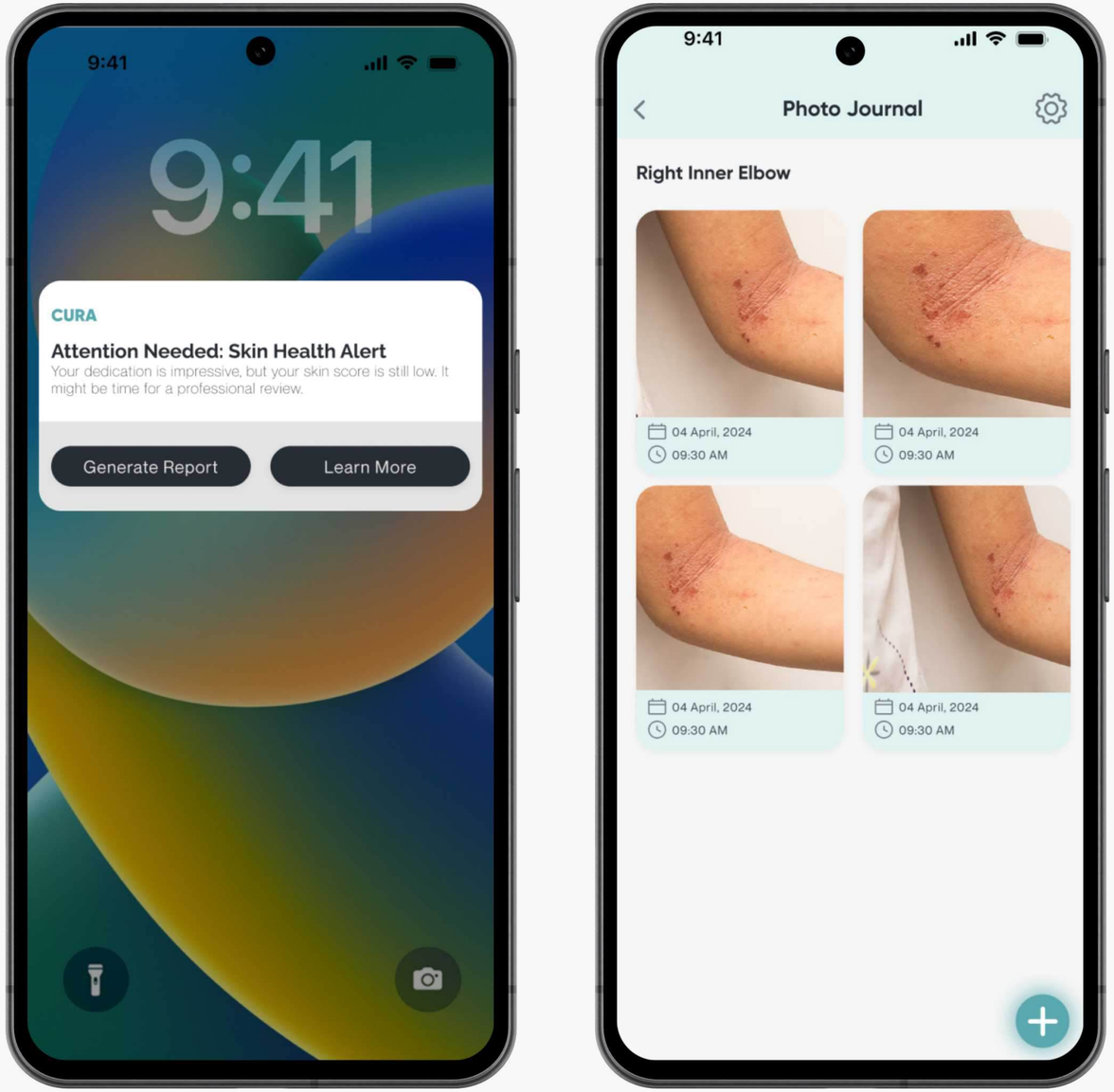


Photo Journal

1. Acknowledging the importance of visual tracking, we have incorporated a photo journal feature into the system.

2. To support proactive health management, our system now includes an alert mechanism utilizing push notifications.



Heuristic Evaluation

Heuristic Evaluation

Heuristic evaluation was conducted after the first iteration to assess **usability while addressing ethical concerns**, as direct engagement with eczema patients was challenging.

1. Visibility of system status *Aalways keep users informed about what is going on, through appropriate feedback within reasonable time.*	Description of the issue	Recommendation
	The screens do not have explicit progress indicators to inform the user how far they have come in the onboarding process and how much is left 2	Implement a Progress Bar or Steps Indicator

2. Match between system and the real world *Follow real-world conventions, making information appear in a natural and logical order.*	Description of the issue	Recommendation
	The 0-3 rating is unclear for the rating. 1	Providing and indicator for users what the rating means

3. User control and freedom *Users should leave the unwanted state without having to go through an extended dialogue. undo and redo.*	Description of the issue	Recommendation
	It's unclear if users can easily navigate back or undo actions once they have made changes to their care plan. If not, this could be a point of improvement. 3	Include a go back button or a undo button for the care plan

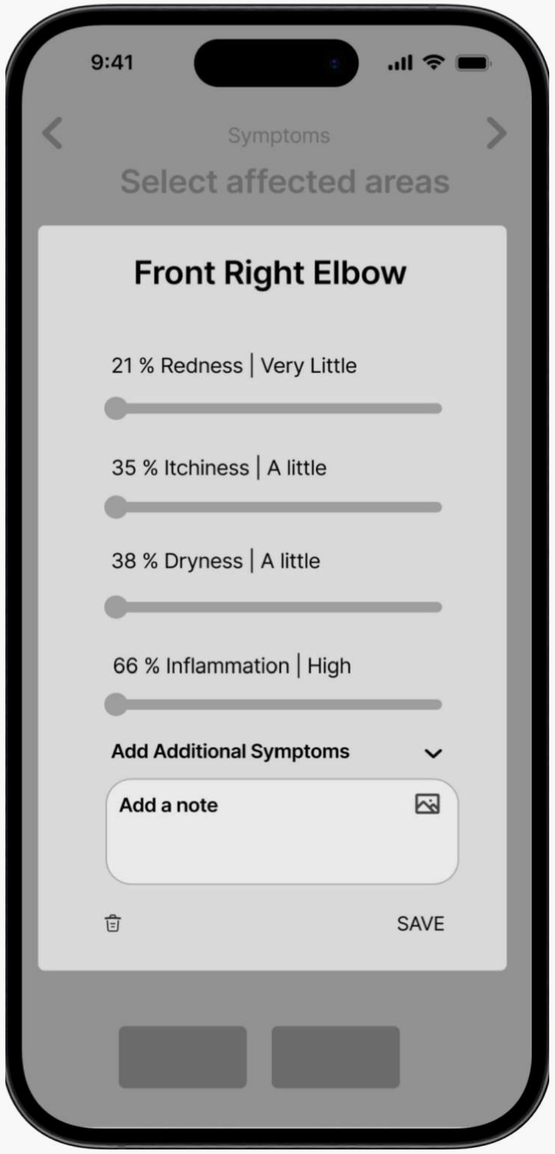
Iteration Two

Improved Tracking

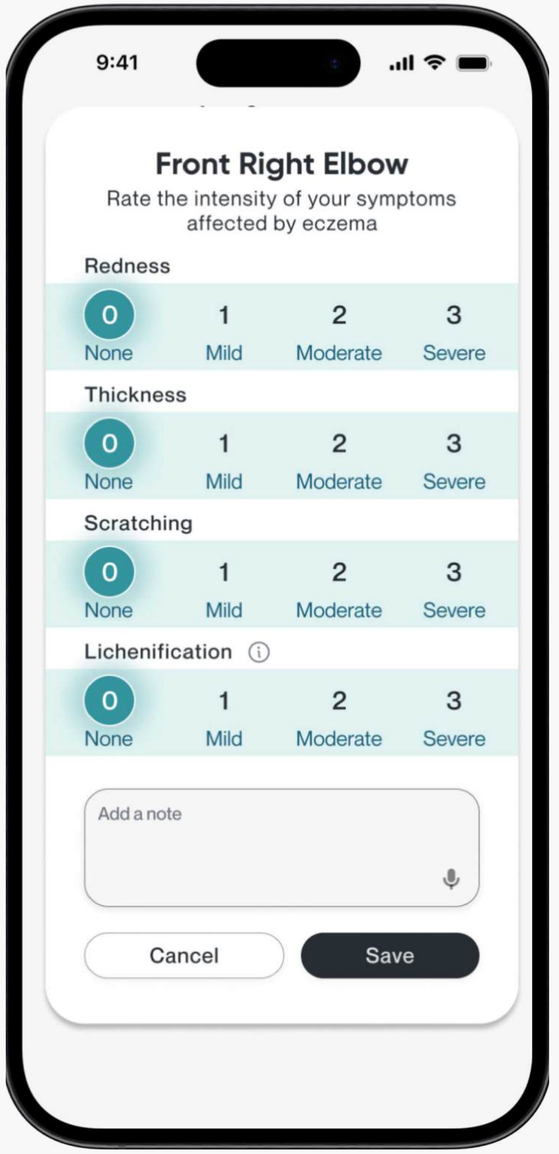
1. Simplified the symptom severity rating from **complex sliders with qualitative descriptors** to a straightforward numerical scale.

2. Replaced the potentially confusing 'Front' and 'Back' buttons with '**Cancel**' **and** '**Done**' and added **tabbed buttons** at the top for clearer navigation.

Before



After

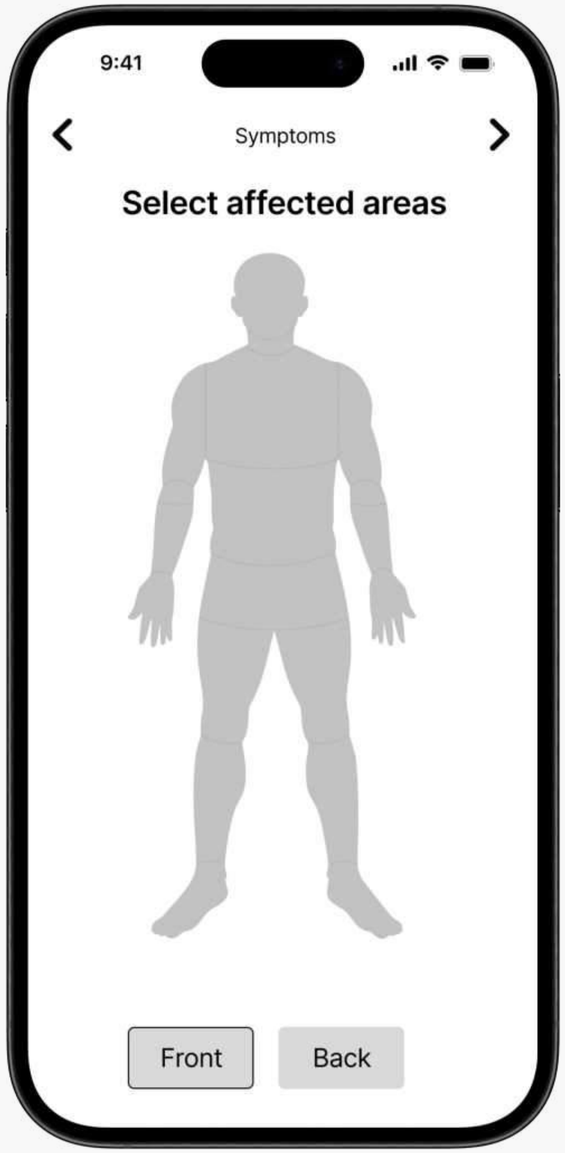


Improved Tracking

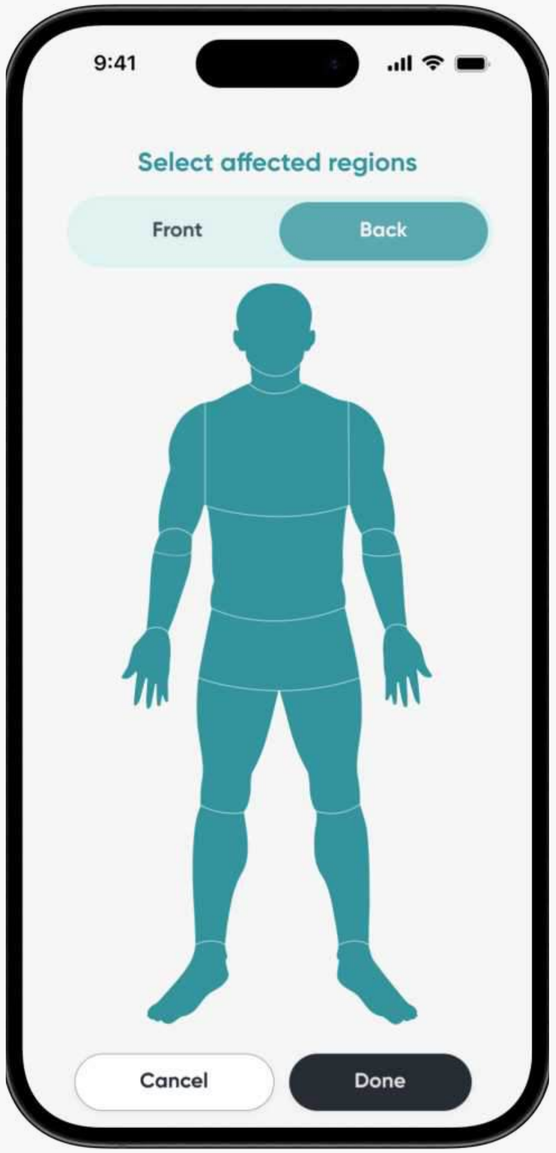
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Before



After

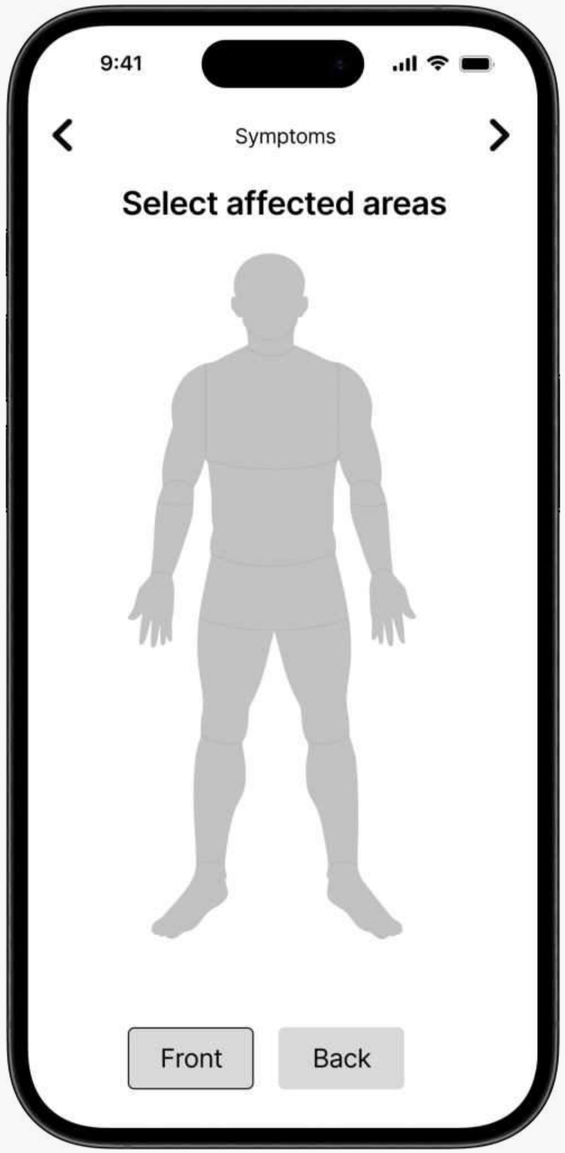


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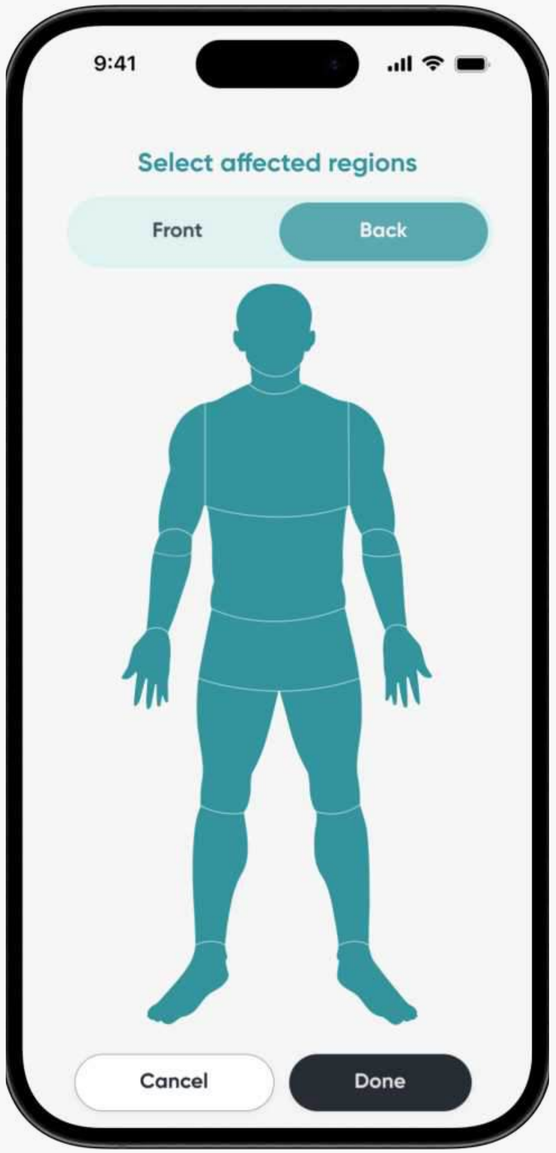
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Before



After



Expert Feedback Two

Inclusive Body Type Representation



Inclusive Body Type Representation



Balance Personalization with Clinical Guidelines



Inclusive Body Type Representation



Balance Personalization with Clinical Guidelines



Consultation with More Doctors

Created by Edward Estelo
from Noun Project



Inclusive Body Type Representation



Balance Personalization with Clinical Guidelines



Consultation with More Doctors



Purpose-Driven Data Tracking

Created by Edward Estelo
from Noun Project

Business Strategy

Financial Projections

The financial projections and cost structure outlined in the following table are based on carefully considered assumptions and projected market conditions.

Year	Total Revenue	Total Costs	Net Income
1	$45,000.00	$550,000.00	-$505,000.00
2	$108,000.00	$525,000.00	-$417,000.00
3	$198,050.00	$620,000.00	-$421,950.00
4	$338,257.50	$690,000.00	-$351,742.50
5	$490,720.00	$770,000.00	-$279,280.00
6	$692,560.00	$850,000.00	-$157,440.00
7	$894,375.00	$930,000.00	-$35,625.00
8	$1,177,050.00	$1,015,000.00	$162,050.00
9	$1,453,935.00	$1,100,000.00	$353,935.00
10	$1,857,765.00	$1,250,000.00	$607,765.00

Table 1 : Financial Projections for 10 year

Revenue Streams

Our revenue strategy for the "Cura" app leverages multiple streams to capitalize on the platform's unique value proposition. Here's an overview of the approach:

- Freemium model
- Partnership revenue
- Advertising income
- Data services
- Doctor/Hospital subscriptions

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6	$692,560.00	$850,000.00	-$157,440.00
7	$894,375.00	$930,000.00	-$35,625.00
8	$1,177,050.00	$1,015,000.00	$162,050.00
9	$1,453,935.00	$1,100,000.00	$353,935.00
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Table 2 : Projected Revenue Streams and Total Revenue Generated in 10 years

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6	$692,560.00	$850,000.00	-$157,440.00
7	$894,375.00	$930,000.00	-$35,625.00
8	$1,177,050.00	$1,015,000.00	$162,050.00
9	$1,453,935.00	$1,100,000.00	$353,935.00
10	$1,857,765.00	$1,250,000.00	$607,765.00

Table 2 : Projected Revenue Streams and Total Revenue Generated in 10 years

Conclusion & future work

Direct Testing And Professional Validation

The next steps will focus on validating the app through direct testing with eczema patients and healthcare professionals.

By involving real users and clinical experts in the testing process, we aim to ensure that the app meets both user needs and professional healthcare standards.

This approach will refine the app's functionality, improve its credibility in clinical settings, and ultimately enhance its effectiveness in managing eczema.

Enhanced Personalization

In addition to user and professional testing, we plan to further personalize the app by incorporating more diverse data points, such as environmental factors and lifestyle habits, to improve the accuracy of symptom tracking and treatment recommendations.

This enhanced personalization will provide users with a more tailored experience and help healthcare providers make more informed decisions based on comprehensive data.

THANK YOU



Press R to go through it again