



imuni

2022 - Mobile app

Stakeholders: product manager & company C-level

Background:

imuni, a newborn startup in home-service vaccination, struggled with a manual registration process through Google Workspace and WhatsApp that often frustrated customers.

Objective:

My task was to design the company's very first digital ecosystem, an end-to-end vaccine registration and information platform that simplified the registration journey, ensured clear vaccination information, and transformed the experience into one that built trust and loyalty with customer

The image displays several screenshots of the imuni mobile application interface, illustrating its features for vaccination management and patient care.

- Vaccination Scheduling:** A screen titled "Jadwal vaksinasi" shows a vaccination record for "Adhitama Ananda Putra, Anak, 6 bulan 12 hari". It lists completed vaccinations (Hepatitis B ke-1, Polio-0 (oral)) and scheduled vaccinations (BCG, DTP ke-1, Hepatitis B ke-2, Polio ke-1). Buttons for "Rekap Kelengkapan Vaksinasi" and "Selesai" are present.
- Patient Profile:** A screen for "Hai, Anindya" displays a summary of vaccinations and a promotional banner for "SEMUA VAKSIN DISKON 25.000". It includes links for "Konsultasi vaksinasi" and "Pantau kesehatan".
- Service Overview:** A screen for "Bayu Pratama Ananda" shows a "Layanan imuni" section with "Price List", "Cakupan area", and "Cara pesan". It also displays vaccination history, BMI (Body Mass Index), and growth data (height, weight, head circumference).
- Doctor Consultation:** A screenshot of a doctor's consultation interface titled "Dokter Konsultan Vaksinasi dr. Maria Christina" shows a message from "dr. Maria Christina" to "Anindya Ardhana" dated "Jumat, 18 Februari 2022". The message discusses vaccination details and scheduling.
- Child Growth Data:** A screen for "Adhitama Ananda Putra" shows growth data (height, weight, head circumference) and development milestones (pertumbuhan, perkembangan).

How this project started?

The project began after we recognised the need for a digital system to enhance service quality. Feedback from frontline doctors (who regularly interact with customers) highlighted the need for improvements at various touchpoints.

Current pain points:

Repeated re-registration

Repeated form-filling was tedious; customers wanted a system to track vaccination history for **smoother re-registration**.



“

It's tedious to fill out the forms every single time.
Don't you have a system to track our vaccination history?

Tricky scheduling process

Unclear scheduling mechanism caused dissatisfaction from our customers, highlighting the need for **clear, reliable appointment details**.



“

My preferred time often changes to match the doctor's availability.
It'd better if I only get truly available slots.

Struggling to communicate effectively

Multiple contact points were confusing; customers preferred a **single, unified communication channel**.



“

I get calls from multiple numbers.
This is confusing, isn't there a unified number for every department at imuni?

Limited payment options

Customers need **better payment flexibility**, like installment plans & e-wallet choices.



“

I wish there were more flexible payment plans,
like I can split the payment with my credit card.

How we operated our services

Since its inception in 2021, imuni has operated its vaccination services as a Minimum Viable Product (MVP) using a suite of digital tools to manage its processes.



For vaccination
registrations



To manage incoming
orders



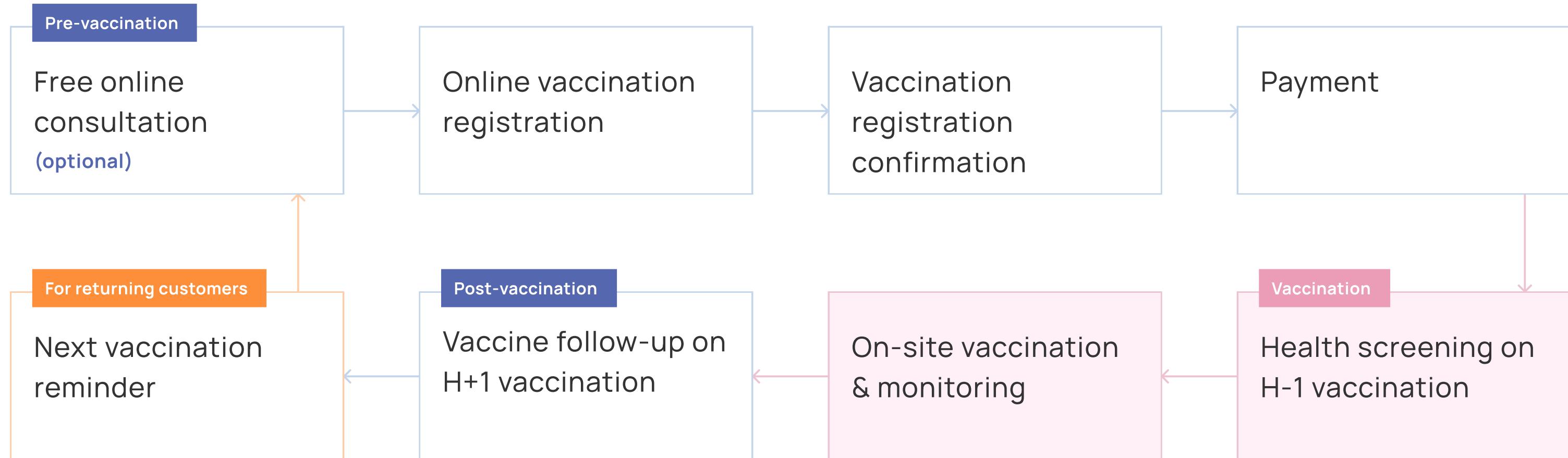
For coordinating
vaccination doctors'
schedules



As communication tools
between us & customers

Current customer journey

This is how the current journey works—returning customers have to re-enter all data in the vaccination registration spreadsheet as if they were new customers.



Problem statement

While our existing service operations have successfully provided value to our customers, they lacked the efficiency needed for our growing services, driving the need for digital transformation.

Effect on our customers:

1. Inefficient processes

Customers faced complicated journeys, particularly in:

- Registration
- Scheduling
- Payment.

2. Communication gaps

Ineffective interactions between patients and imuni's team due to too many contact points.

3. Improper data management

Lack of integrated records regarding patient's vaccination & child development.

Effect on our team:

1. Data management issues

The absence of advanced features led to inefficient data management and analysis.

2. Scheduling issues

Google Calendar was inadequate for scheduling doctors, causing delays.

Characteristics of our customers

Due to time and budget constraints, I couldn't conduct research with our customers. Therefore, I gathered insights from imuni's executives and doctors for insights about our customers.



Age

Mostly young mothers, aged 25-35, with 1-2 infants

Traits

- Well-educated
- Affluent
- Tech-savvy
- Convenience-driven
- Health-conscious

Expectations

Reliable, user-friendly app providing accurate information

Benchmarking on other competitors

While no direct vaccination registration competitors existed at the time, I conducted benchmarking on indirect competitors to learn about industry standards & uncover further opportunities.



PrimaKu

PrimaKu acts as a digital child book with vaccination registration, partnering with the Indonesian Pediatric Society (IDAI) to provide quick and easy access to child health and development information.

Pros:

1. Intuitive and user-friendly design, offering a seamless experience.
2. Comprehensive information on child growth and development, efficiently organized for users.

Cons:

1. Users report delays and bugs when updating data, sometimes resulting in data loss, especially in growth and development tracking.
2. The app can be slow, making it unresponsive and difficult to use.

Vaccination registration	Vaccination information	In-app consultation with doctor	Child-growth monitoring
✗	✓	✗	✓



Tentang Anak

Tentang Anak offers pregnancy and child growth tracking, doctor Q&A, and health articles, serving as a comprehensive parenting guide for optimal child development.

Pros:

1. Provides extensive information for parenting, serving as an all-in-one tool.

Cons:

1. The UI can seem outdated and not very user-friendly.
2. Certain features may be too complex, requiring more expertise to use effectively.

Vaccination registration	Vaccination information	In-app consultation with doctor	Child-growth monitoring
✓	✓	✓	✓

Main features in our app

Considering the services we currently provide and the characteristics from most of our customers, we decided on the following new features for our app:



Streamlined vaccination registration



Improved communication
(single communication channel)



Flexible payment options



Digital vaccination records



Health Monitoring
(for both children and adults)

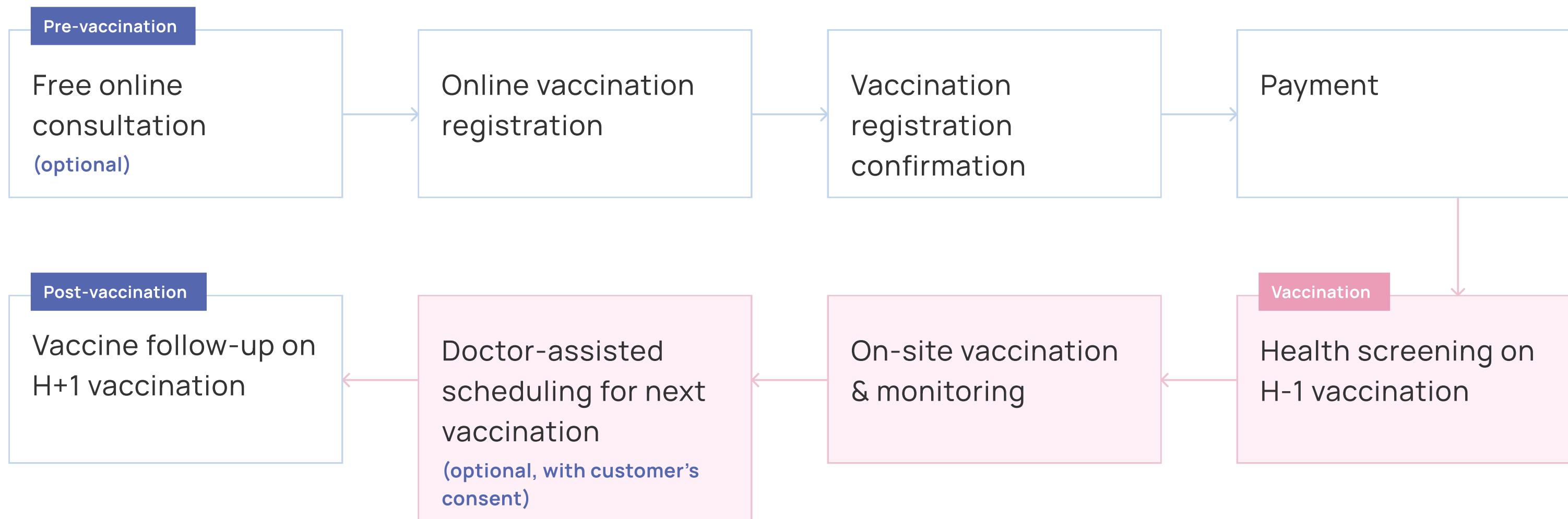


Streamlined next vaccination reminders

While the project spans both dashboard web and mobile platforms, this writing highlights the **end-to-end vaccine registration flow** on the imuni mobile app.

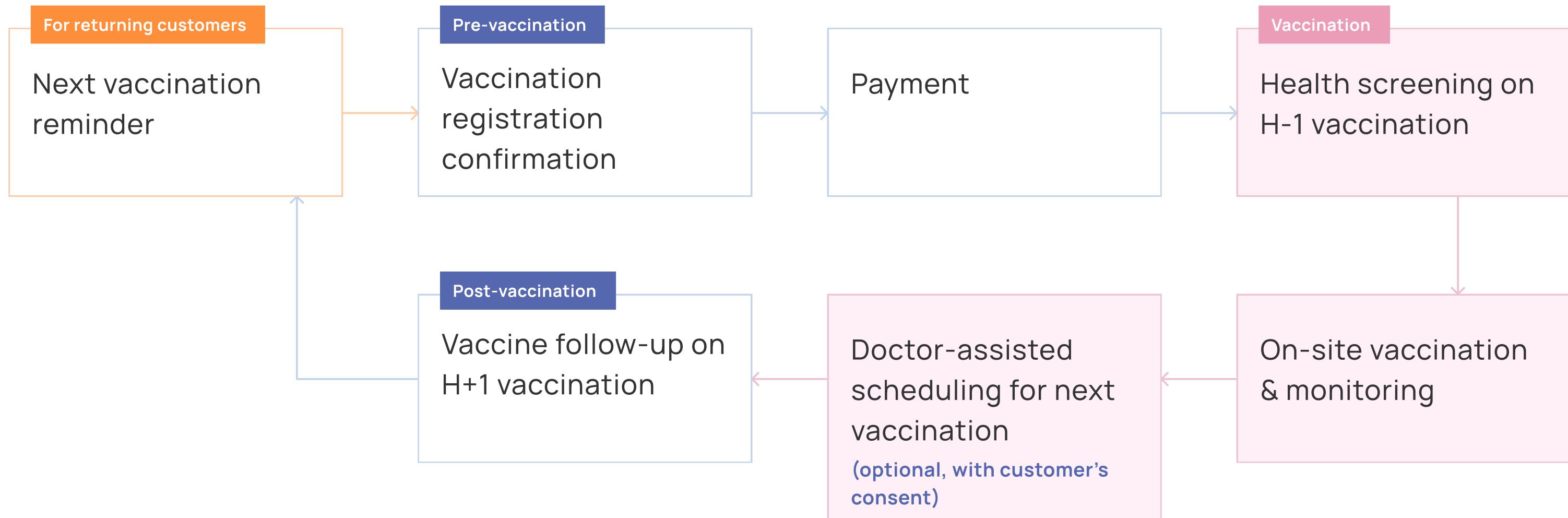
New customer journey

First-Time Customers



Returning Customers

For returning customers, this updated journey eliminates repetitive steps by allowing them to confirm their next vaccination (pre-scheduled by doctor with their consent) without needing to re-register.



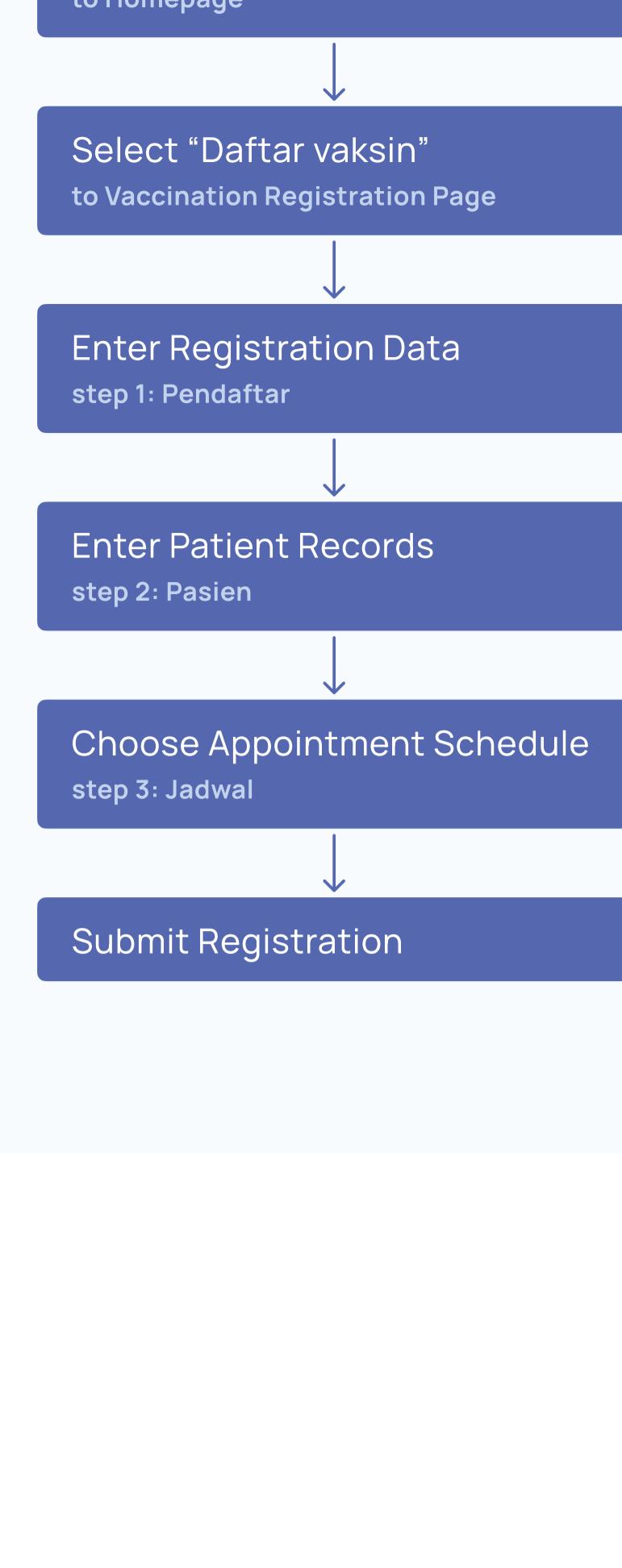
Results

Highlight 1: Optimized vaccination registration

The existing vaccination registration using Google Forms required substantial effort and often led to errors, resulting in negative user experiences.

We improved this by storing previous data and automating form completion to simplify the process.

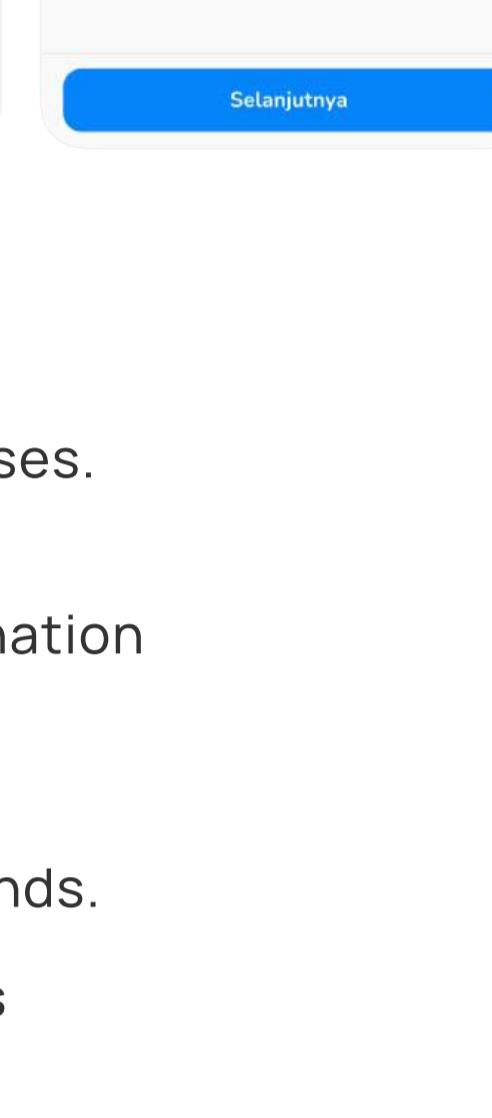
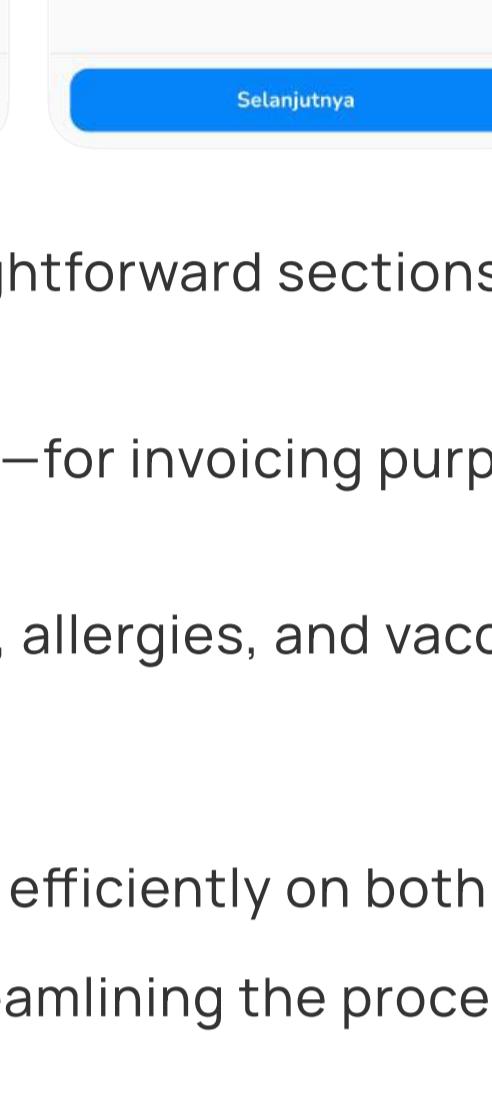
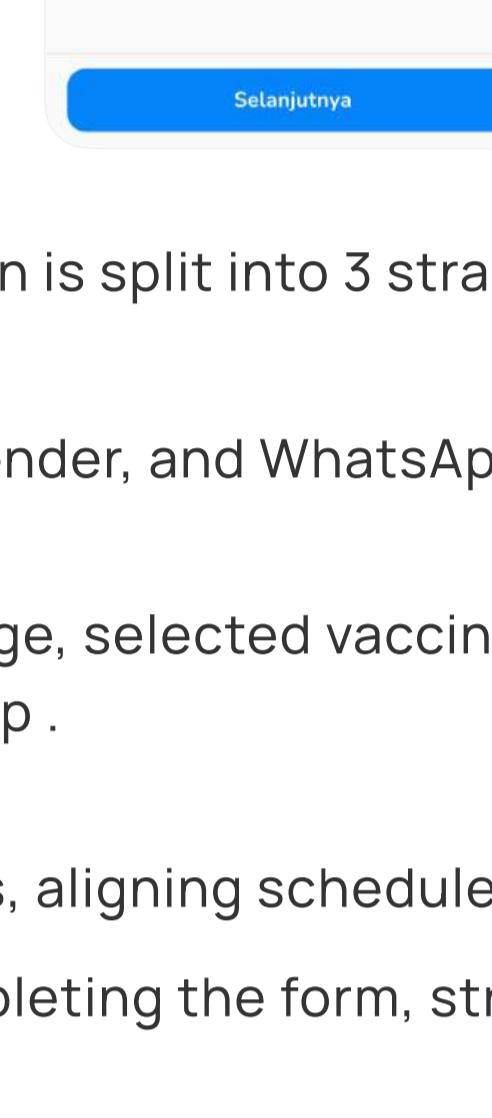
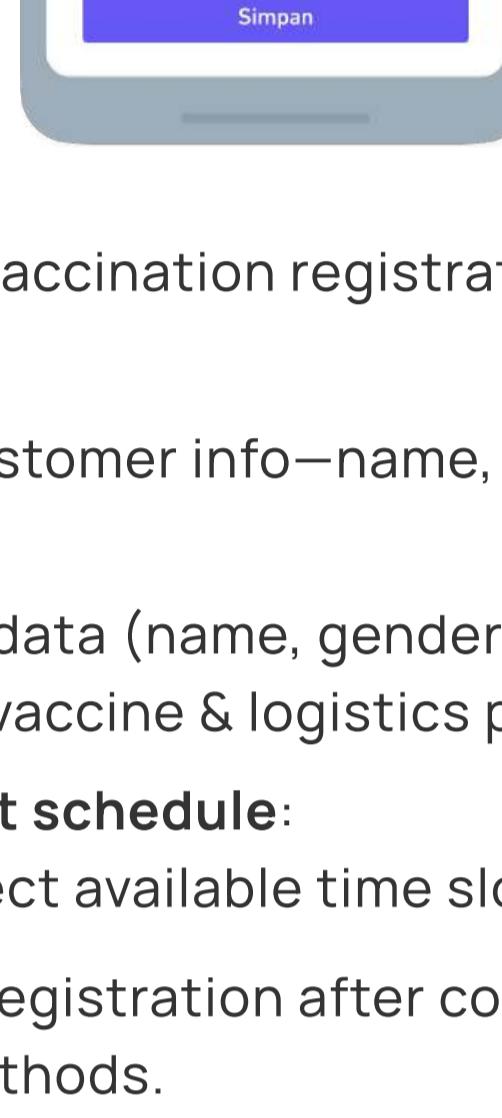
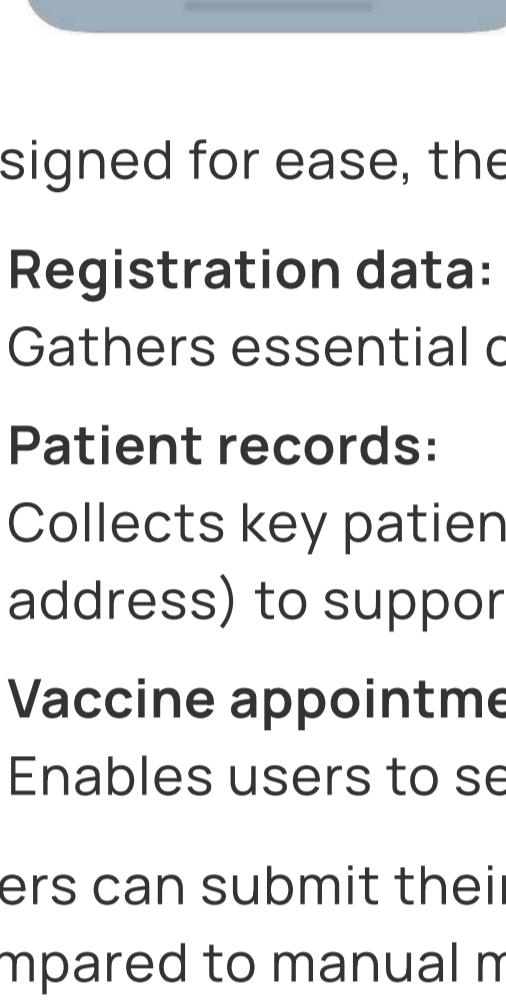
User Flow



Design process

1. Overview of Vaccination Registration

Wireframe



Designed for ease, the vaccination registration is split into 3 straightforward sections:

1. Registration data:

Gathers essential customer info—name, gender, and WhatsApp—for invoicing purposes.

2. Patient records:

Collects key patient data (name, gender, age, selected vaccine, allergies, and vaccination address) to support vaccine & logistics prep .

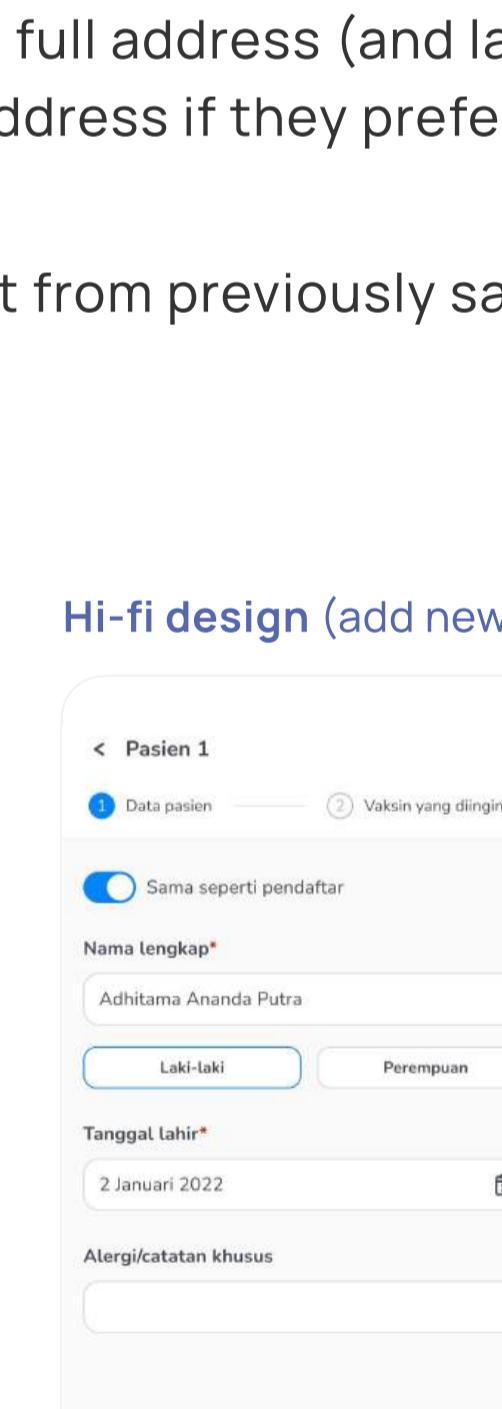
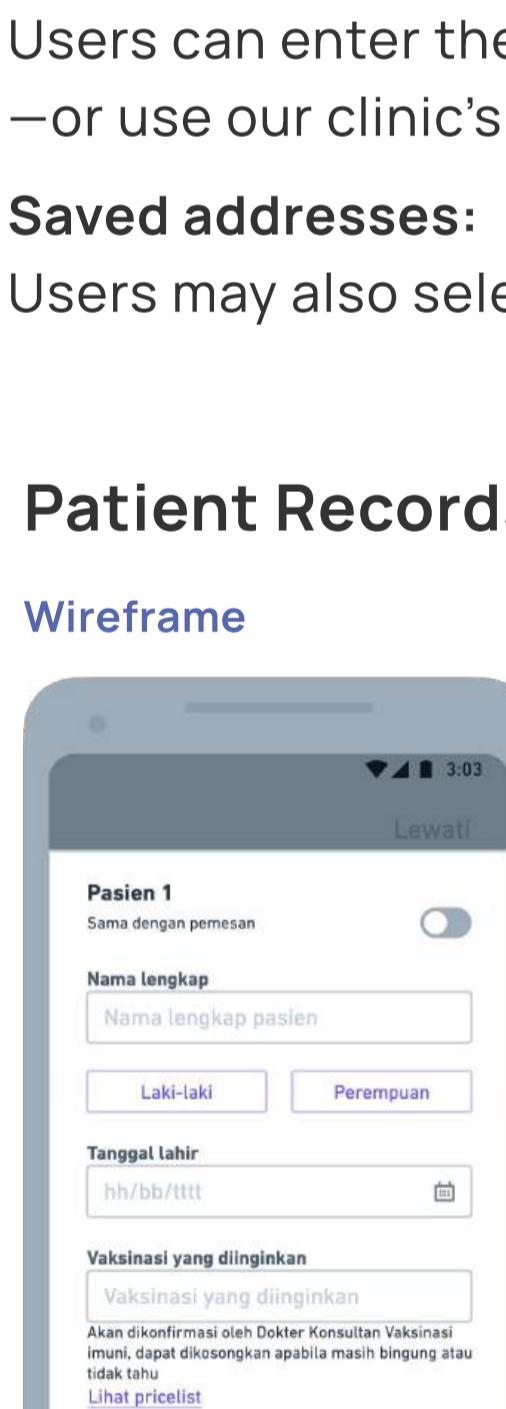
3. Vaccine appointment schedule:

Enables users to select available time slots, aligning schedules efficiently on both ends.

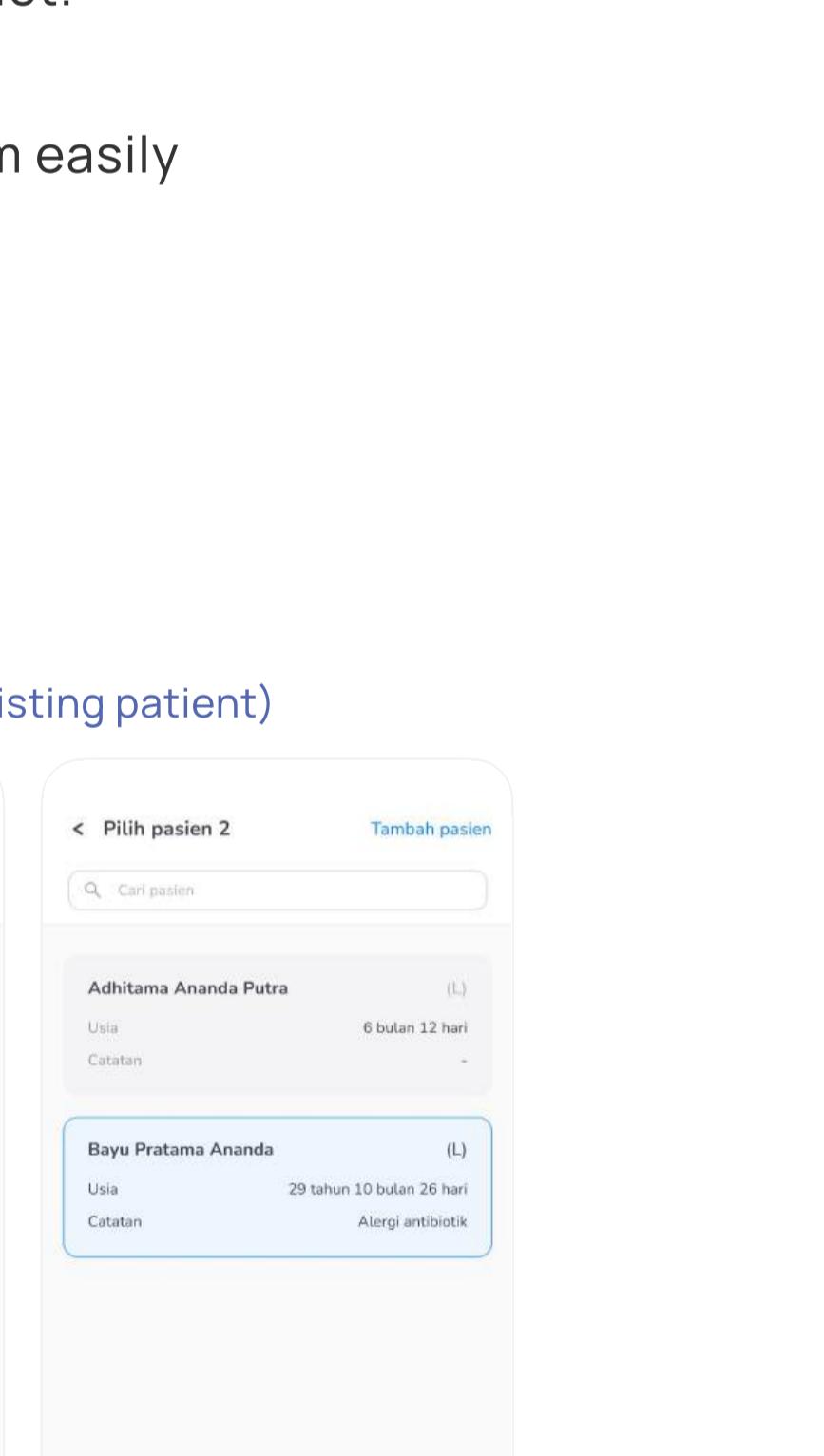
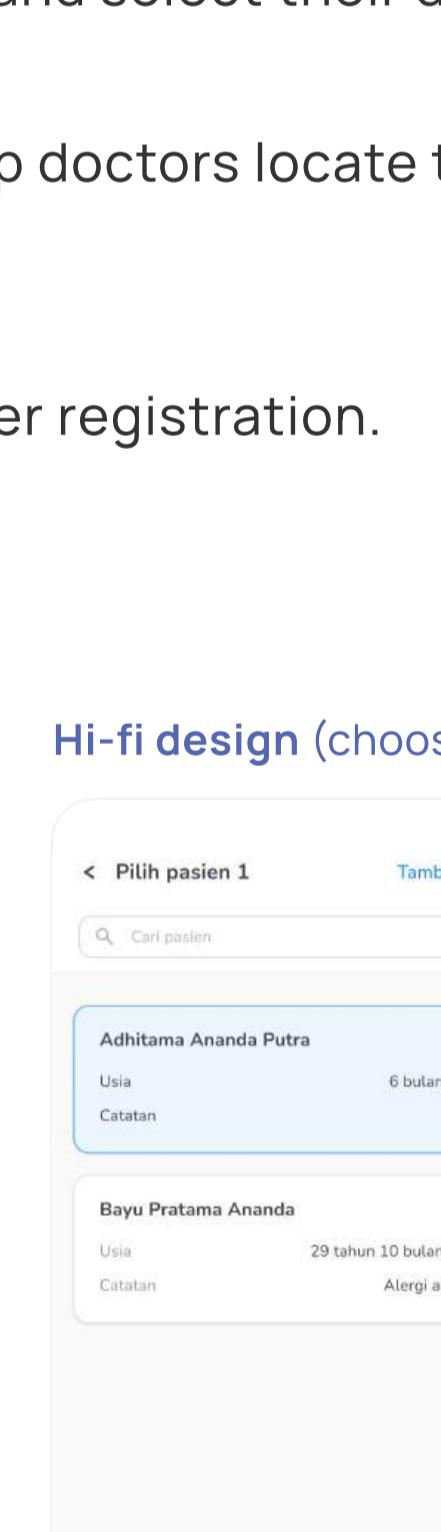
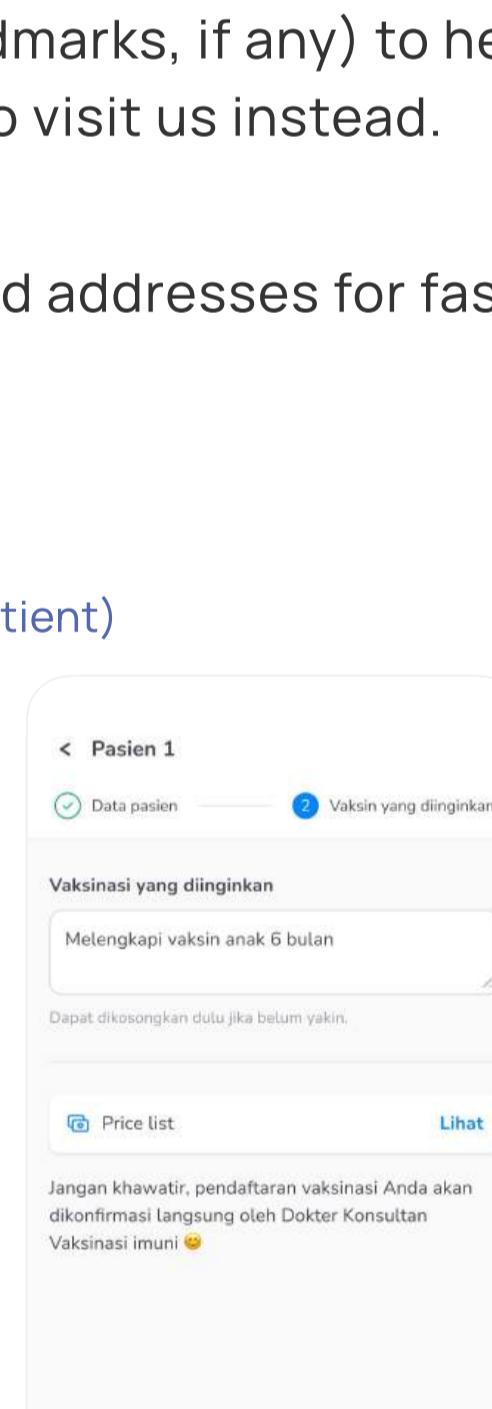
Users can submit their registration after completing the form, streamlining the process compared to manual methods.

2. Vaccination Address Details

Wireframe



Hi-fi design (add new address)



The vaccination address section simplifies location input through 3 key features:

1. District selection:

A smart search lets users type just 3 characters to quickly find and select their district.

2. Address input:

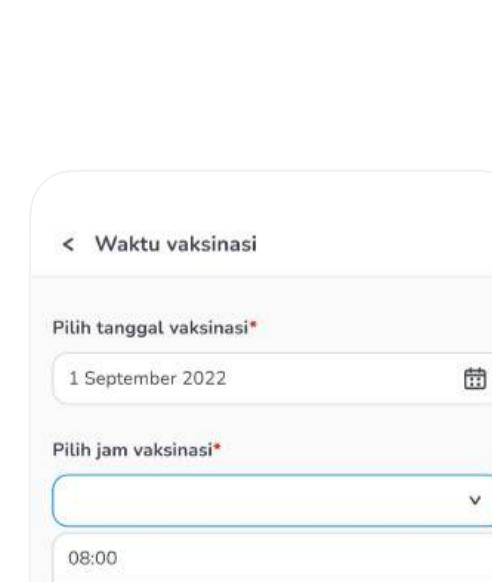
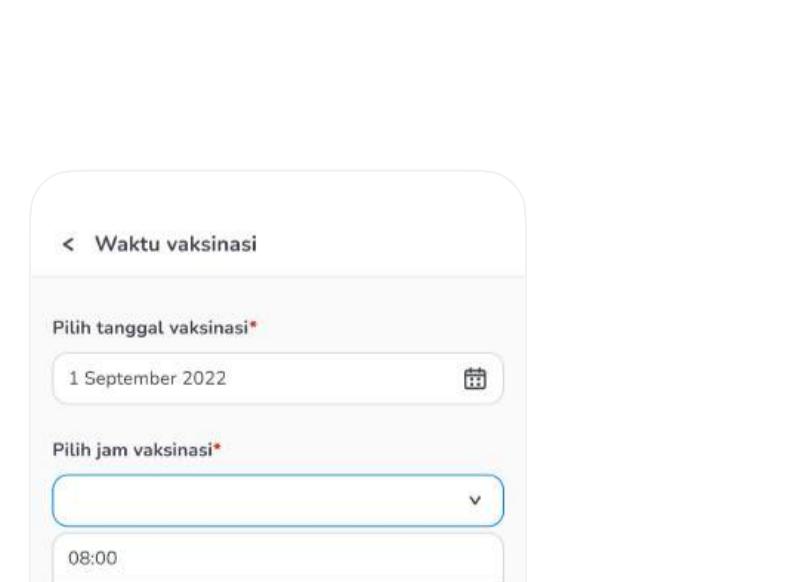
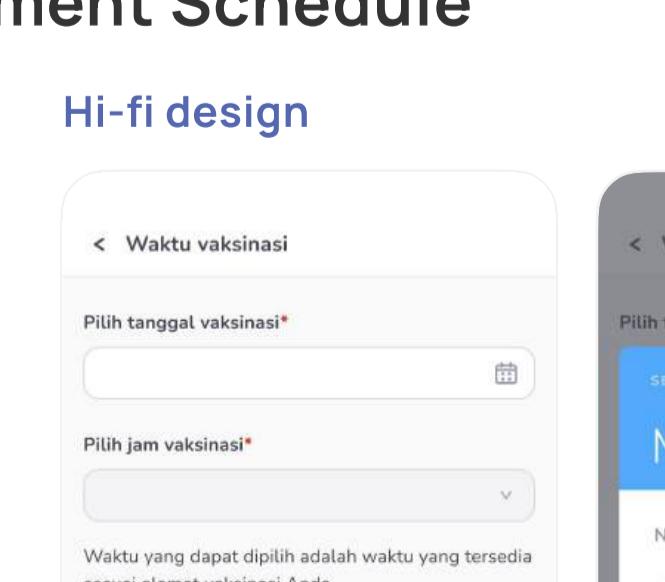
Users can enter their full address (and landmarks, if any) to help doctors locate them easily—or use our clinic's address if they prefer to visit us instead.

3. Saved addresses:

Users may also select from previously saved addresses for faster registration.

3. Patient Records

Wireframe



This section is built to streamline the input of vaccination-related patient data:

1. New patient entry:

Users enter full name, gender, age, and allergies—ensuring complete medical records.

2. Reuse existing data:

Returning users can select from saved patient profiles and update vaccination details—reducing repetitive work.

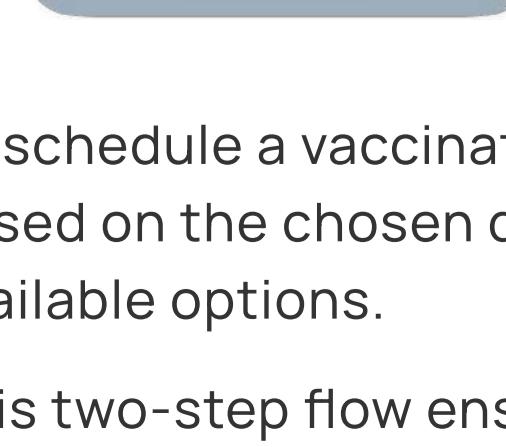
3. Vaccination selection:

Users can fill in their preferred vaccines or vaccination purposes. Updated pricing information is also displayed for transparency.

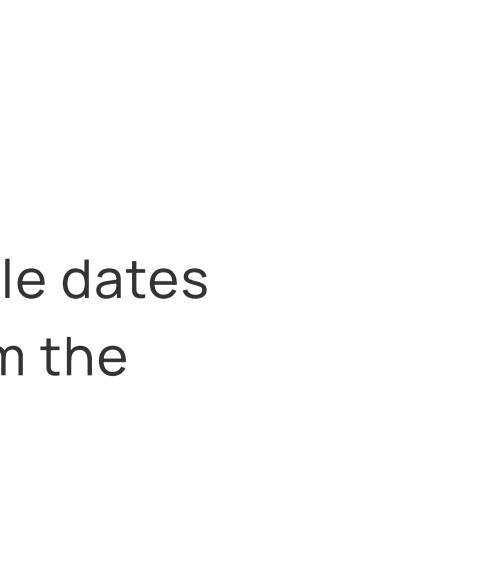
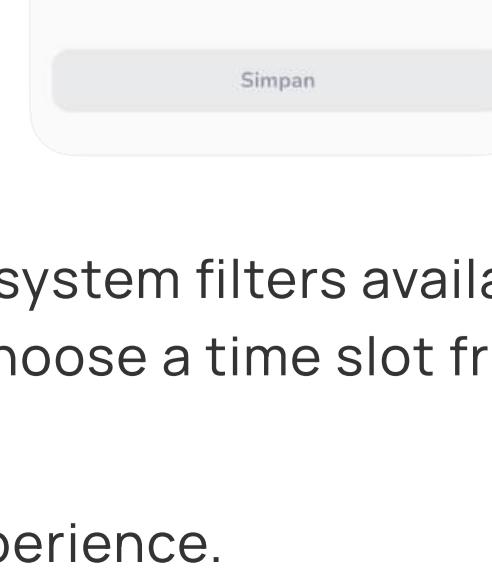
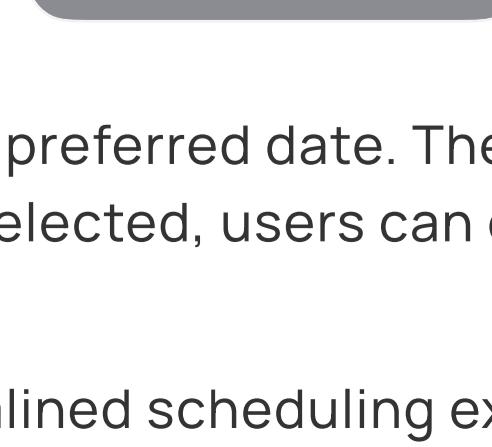
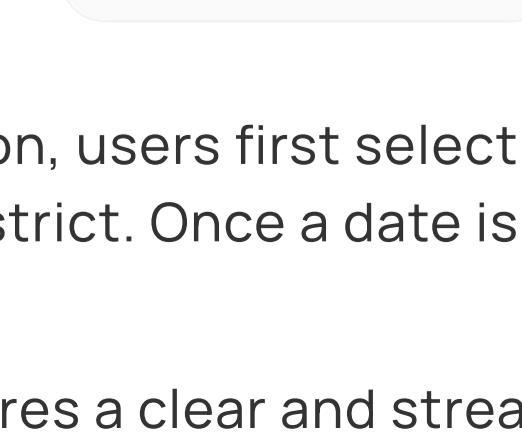
This setup ensures accurate data capture while saving time and enhancing overall usability.

4. Vaccine Appointment Schedule

Wireframe



Hi-fi design



To schedule a vaccination, users first select a preferred date. The system filters available dates based on the chosen district. Once a date is selected, users can choose a time slot from the available options.

This two-step flow ensures a clear and streamlined scheduling experience.

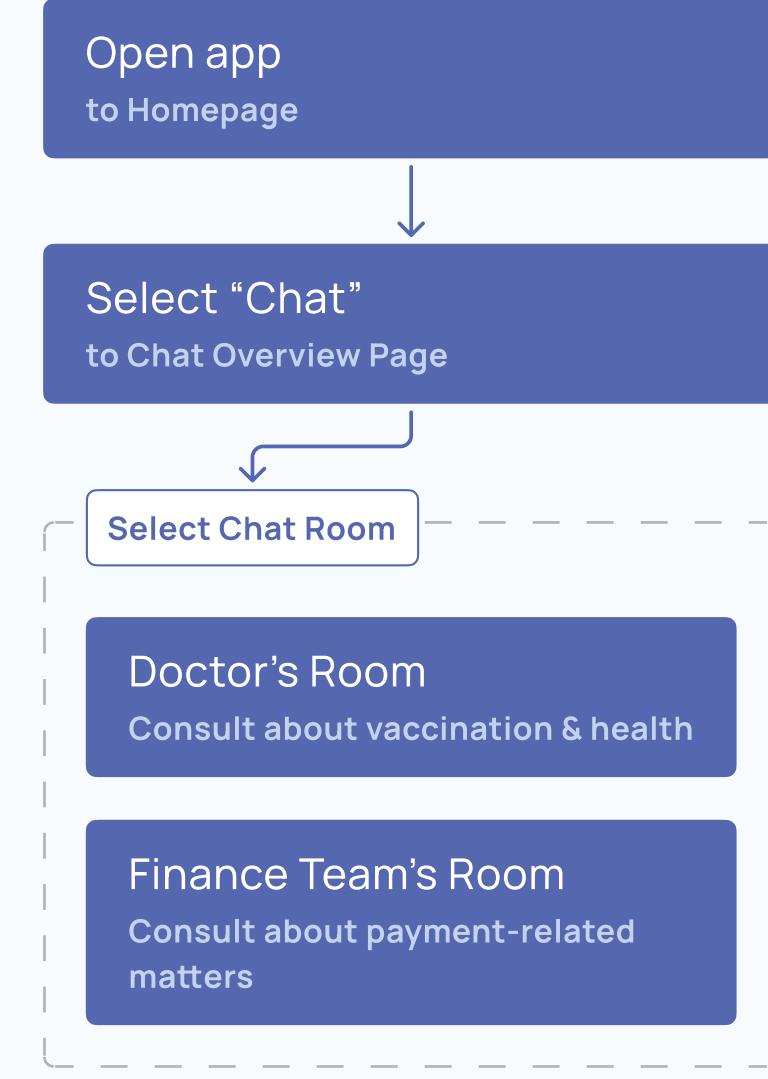
Results

Highlight 2: Improved communication through a single, unified channel

Previously, users had to coordinate with three separate contacts (consulting doctor, finance team, and vaccinating doctor) which complicated the process.

With centralized in-app chat, communication is now streamlined for a smoother consultation experience.

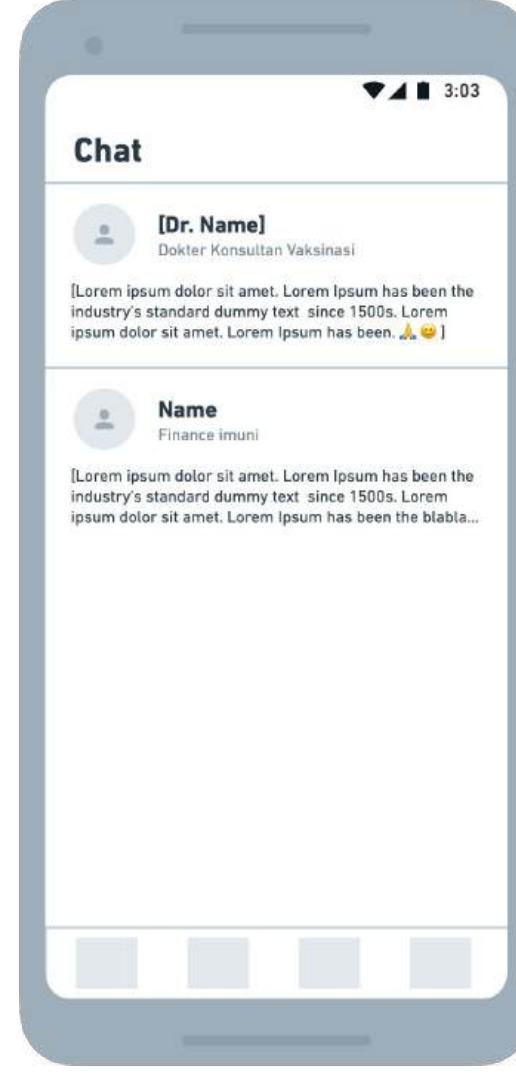
User Flow



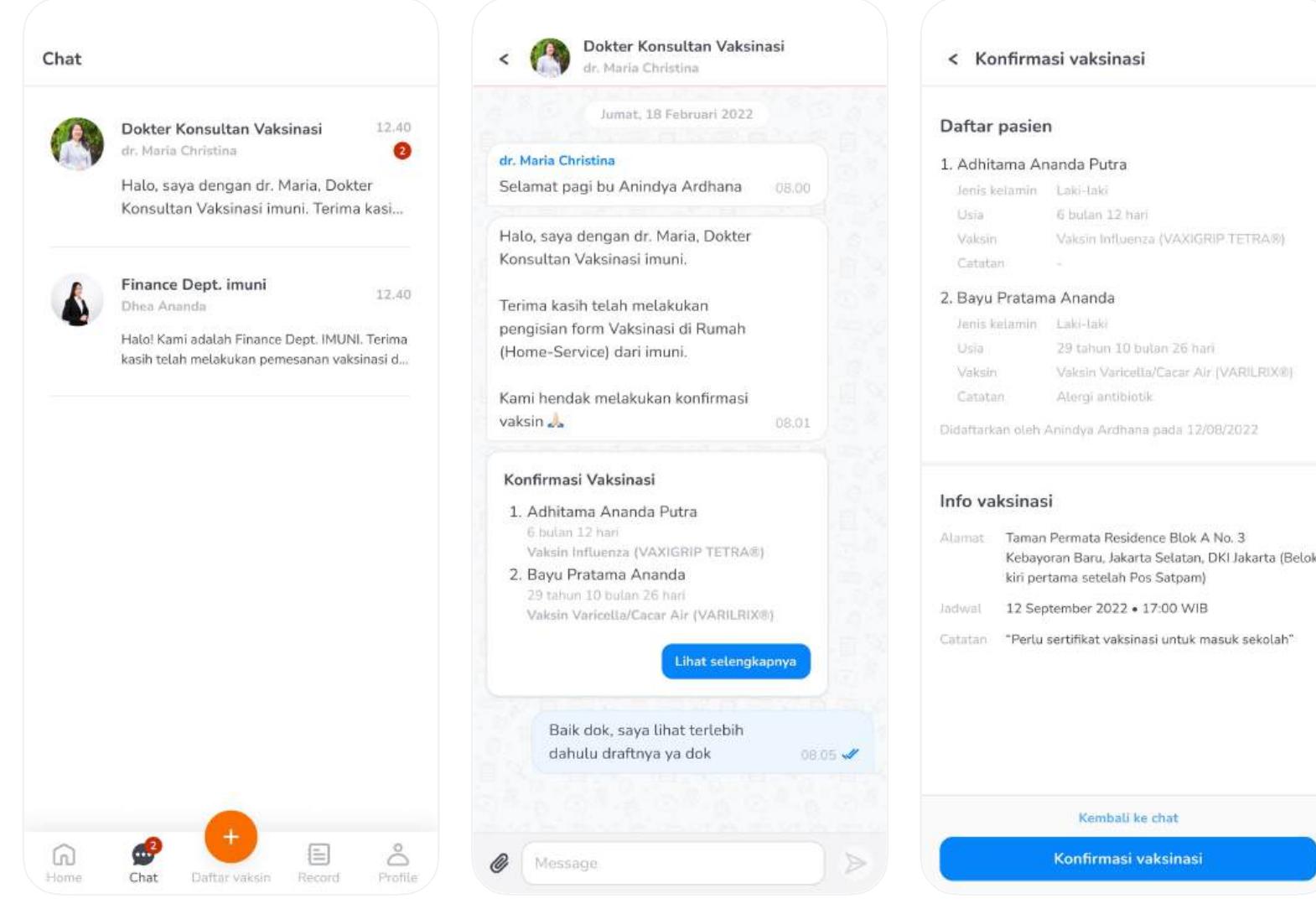
Design process

1. Centralized Chat Communication

Wireframe



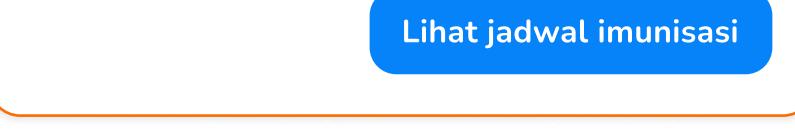
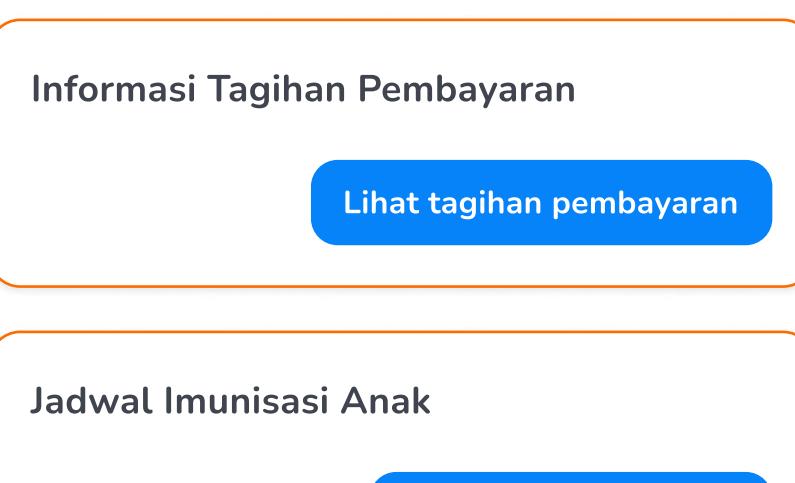
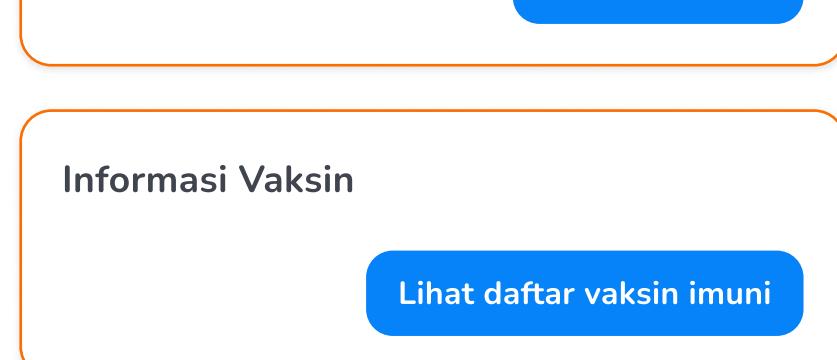
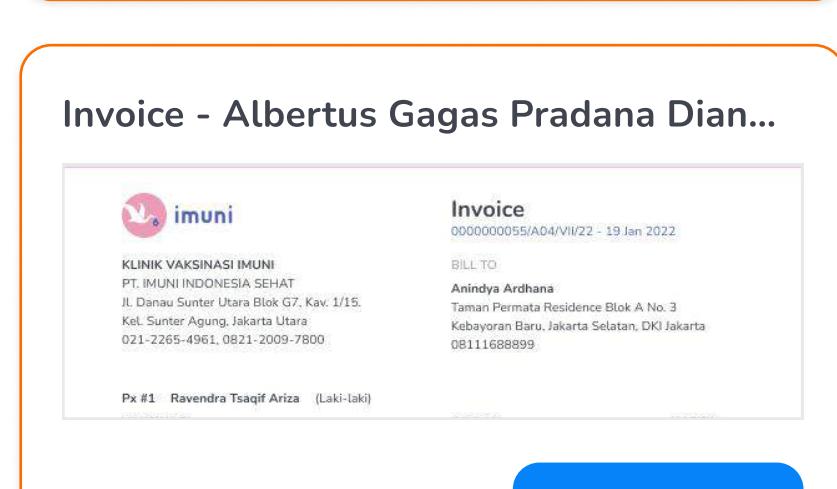
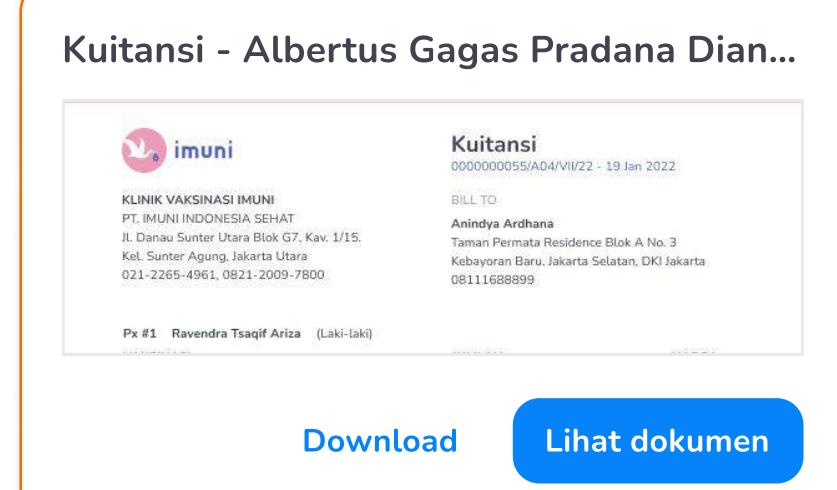
Hi-fi design



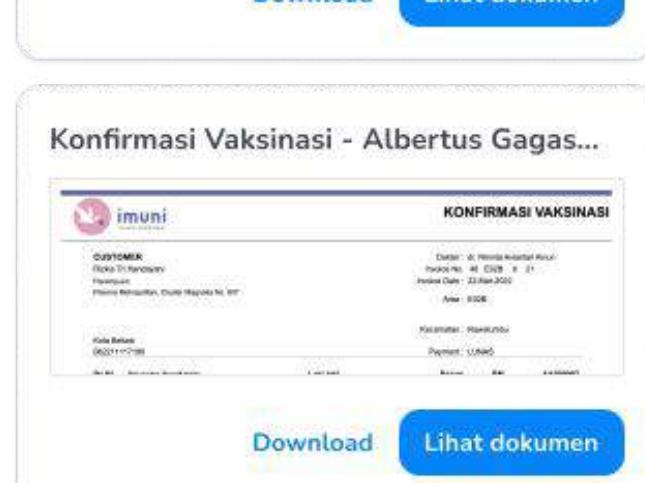
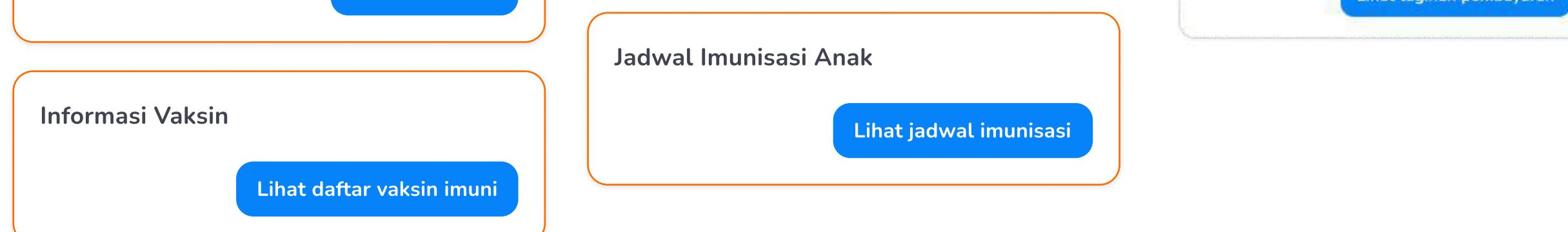
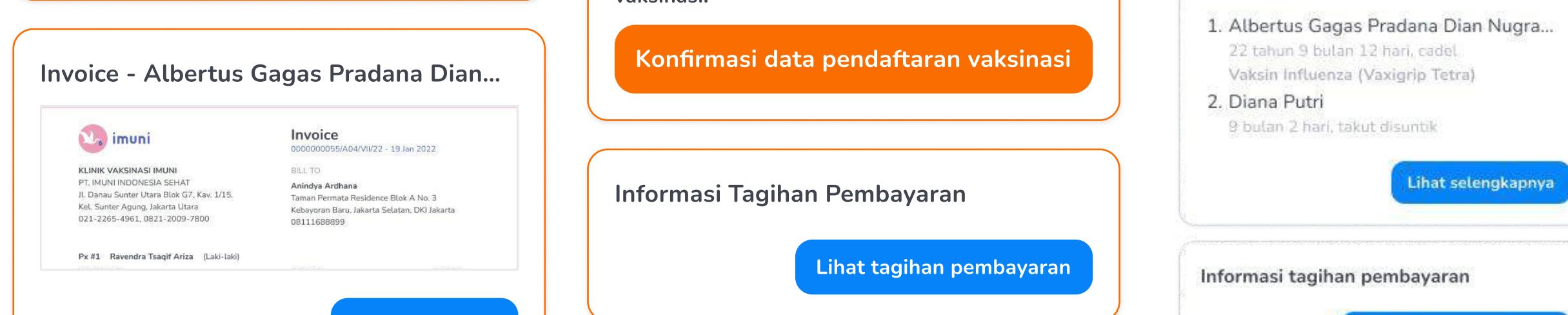
To eliminate fragmented communication, I created a unified chat feature with distinct rooms for medical and payment support. This ensures clarity, reduces user confusion, and consolidates all messaging in one place.

2. Dedicated Chat Bubbles Chat Communication

For Finance Team's Room



For Doctor's Room



Dedicated chat bubbles handle confirmations, vaccine info, and official documents like invoices and receipts, reducing miscommunication and keeping records aligned.

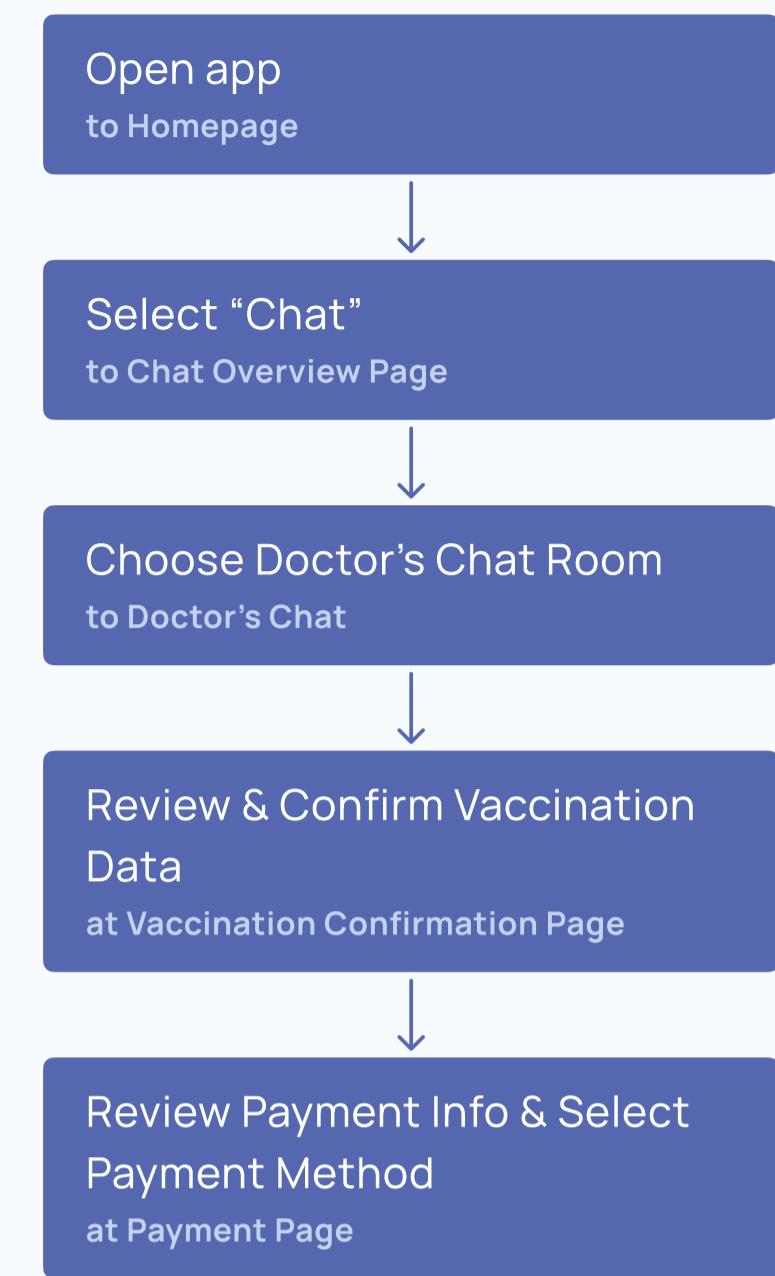
Results

Highlight 3: Designed a multi-method payment system

Previously, users had to manually transfer payments, making the process inconvenient.

By designing a flexible, multi-channel payment solution integrated with a payment gateway, users can now pay via virtual accounts, credit cards, or paylater—streamlining the process.

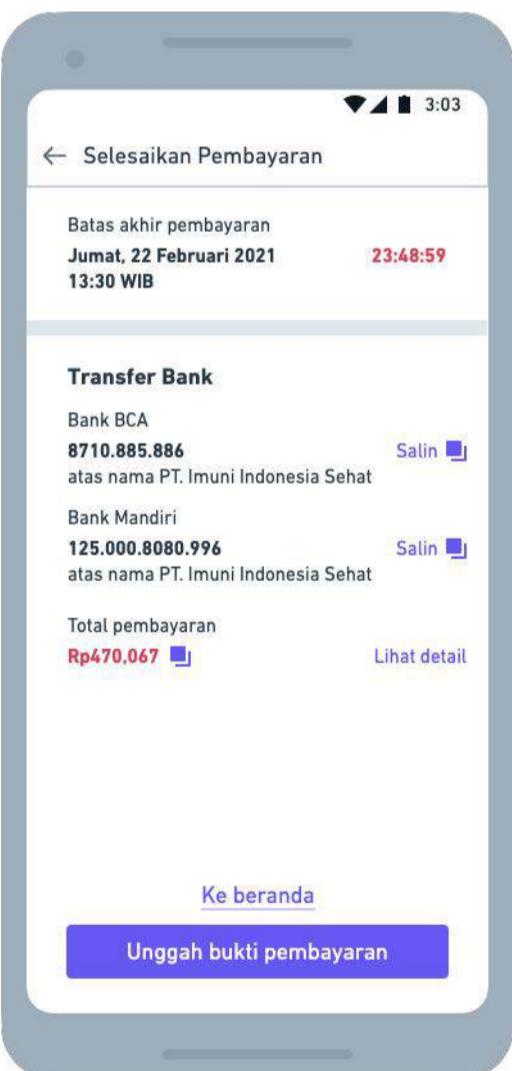
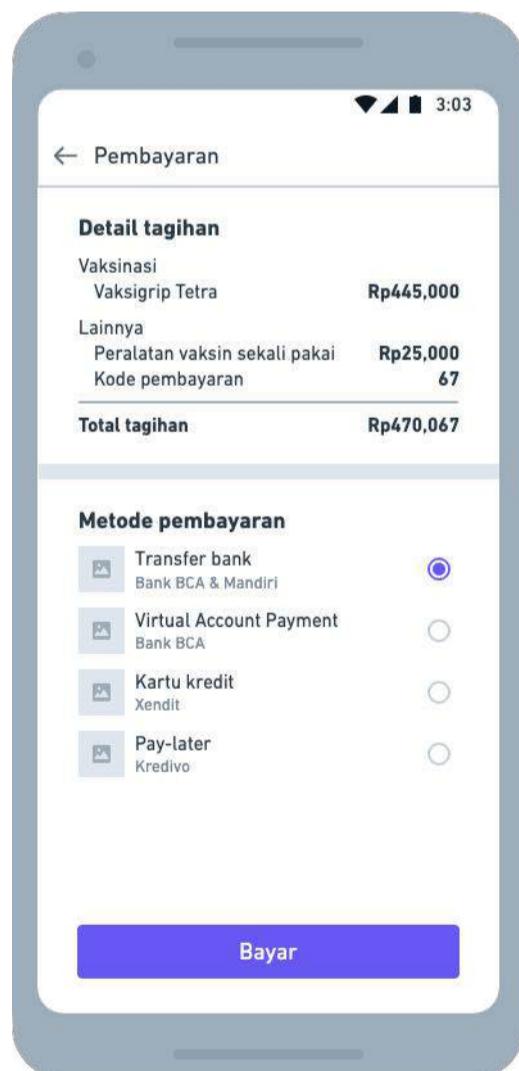
User Flow



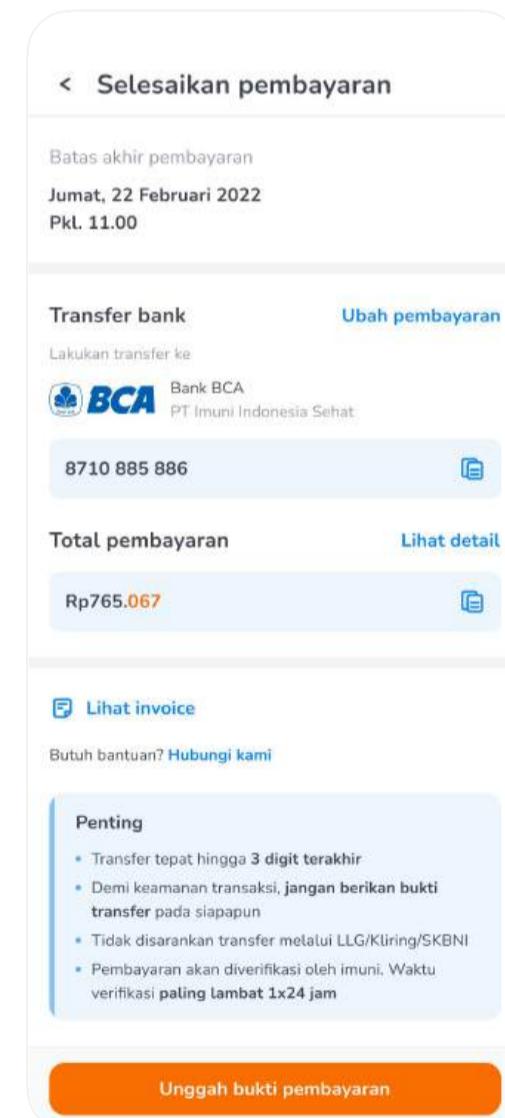
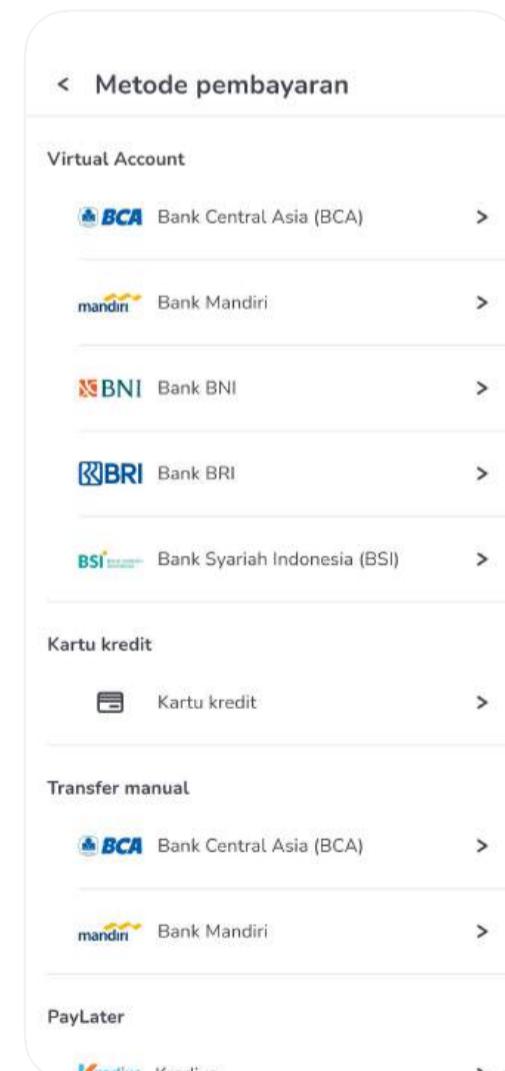
Design process

Payment

Wireframe



Hi-fi design



The payment feature addresses the inflexibility of manual bank transfers, which were inconvenient for users, especially with high vaccination bills.

The app now offers a variety of payment options through a payment gateway, including virtual accounts (VA), credit cards (CC), and paylater. This flexibility makes payments more convenient and user-friendly.

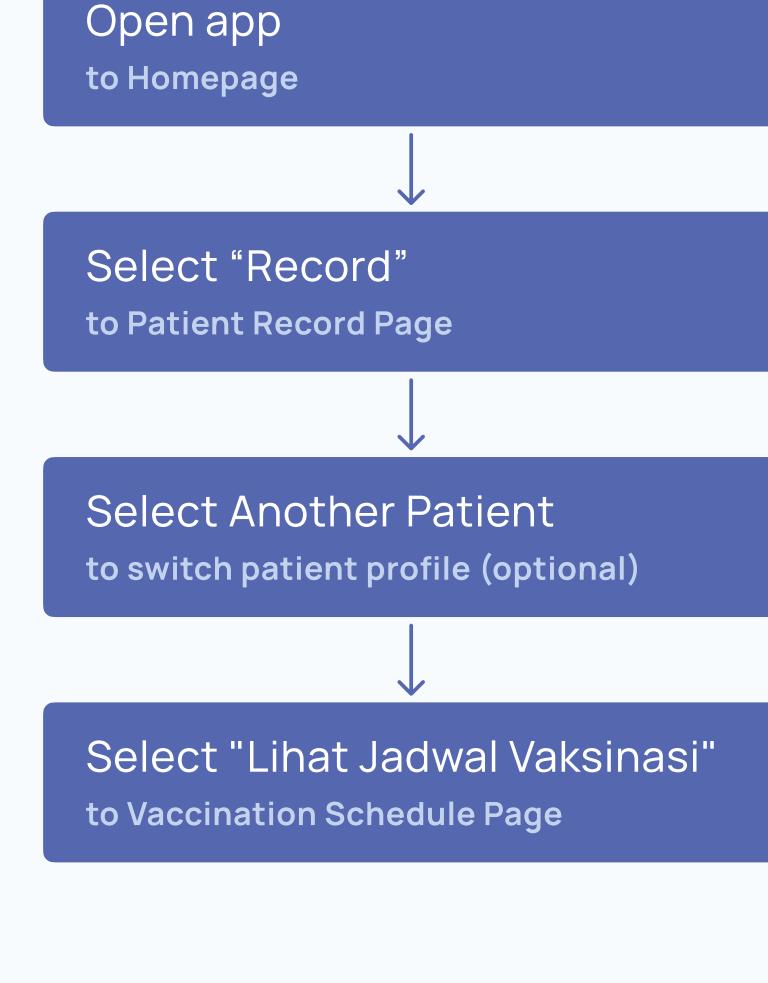
Results

Highlight 4: Digital vaccination records

The digital vaccination records feature addresses the impracticality and vulnerability of physical vaccination booklets and Google Sheets, which were prone to damage, loss, and other issues.

Storing data in the app ensures automatic updates and easy access for users, eliminating concerns about damage or loss. This also allows the imuni team, including doctors, to effortlessly revisit patient records, enhancing efficiency and reliability.

User Flow



Design process

Vaccination records

The digital vaccination records feature offers a more practical and reliable solution by storing data within the app. Here's how it addresses key issues:



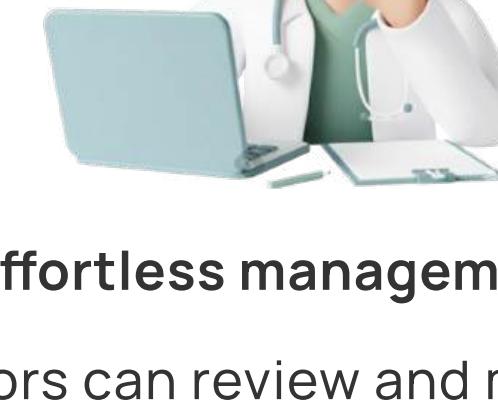
Automatic updates

Records update instantly after every vaccination.



Easy access

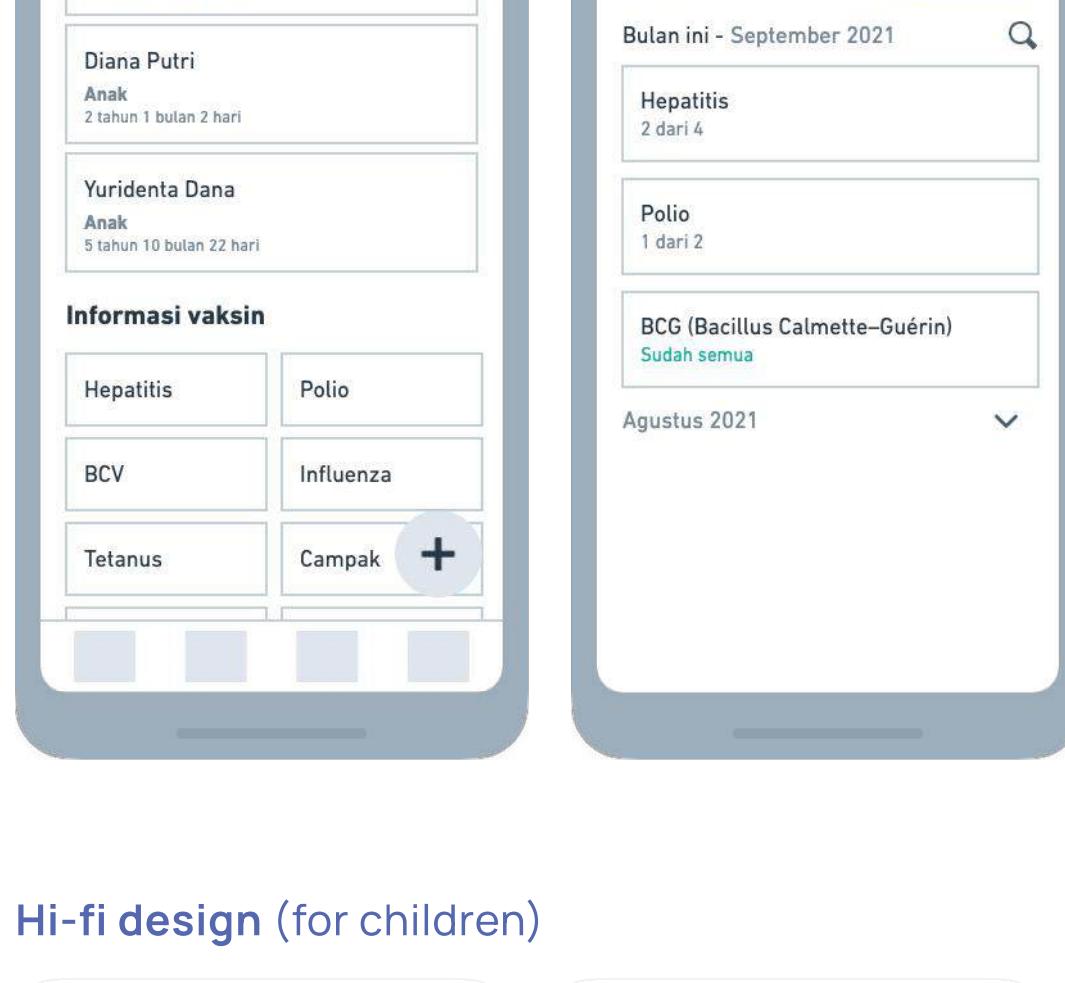
Vaccination history available anytime, worry-free.



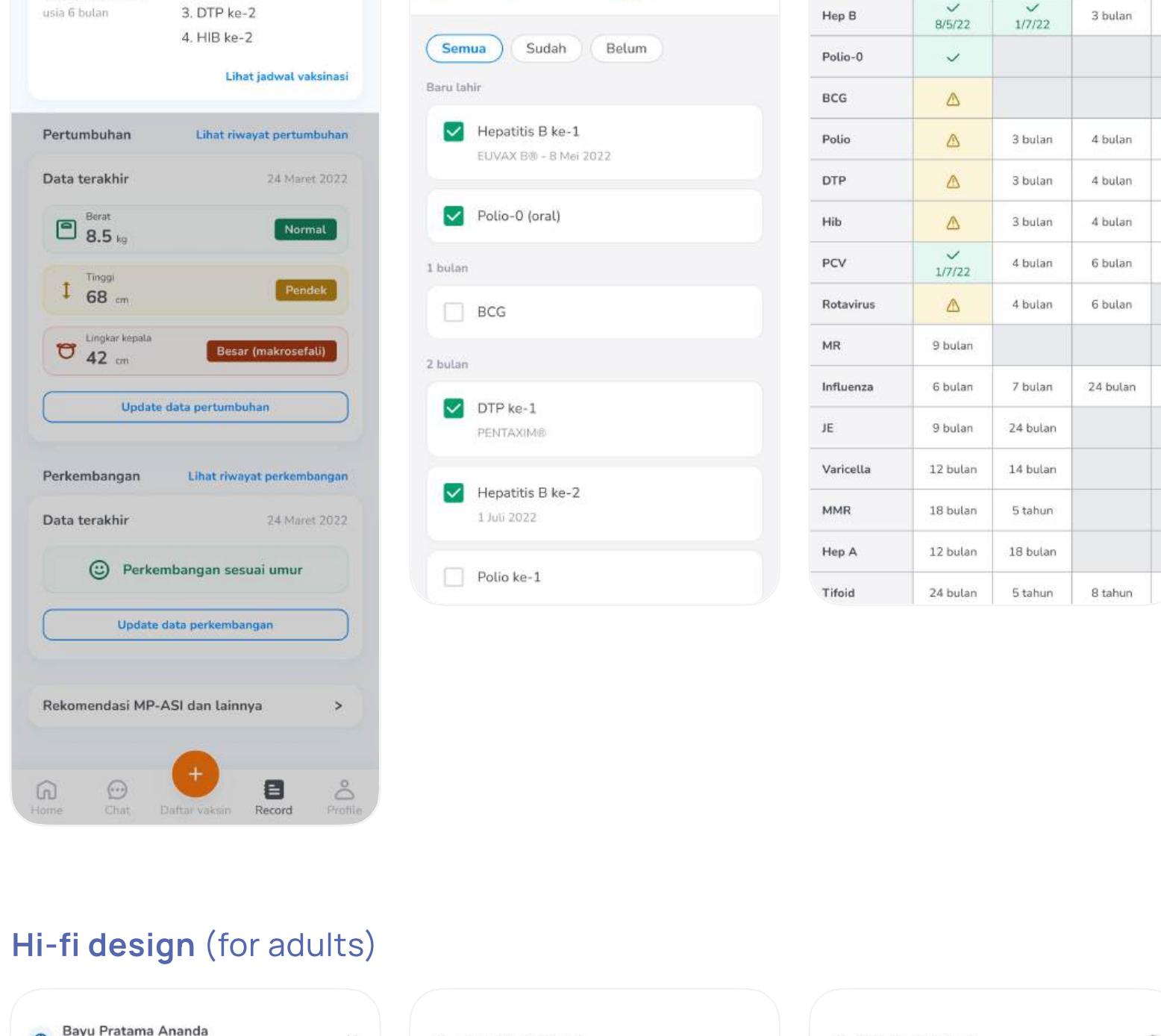
Effortless management

Doctors can review and manage records quickly.

Wireframe

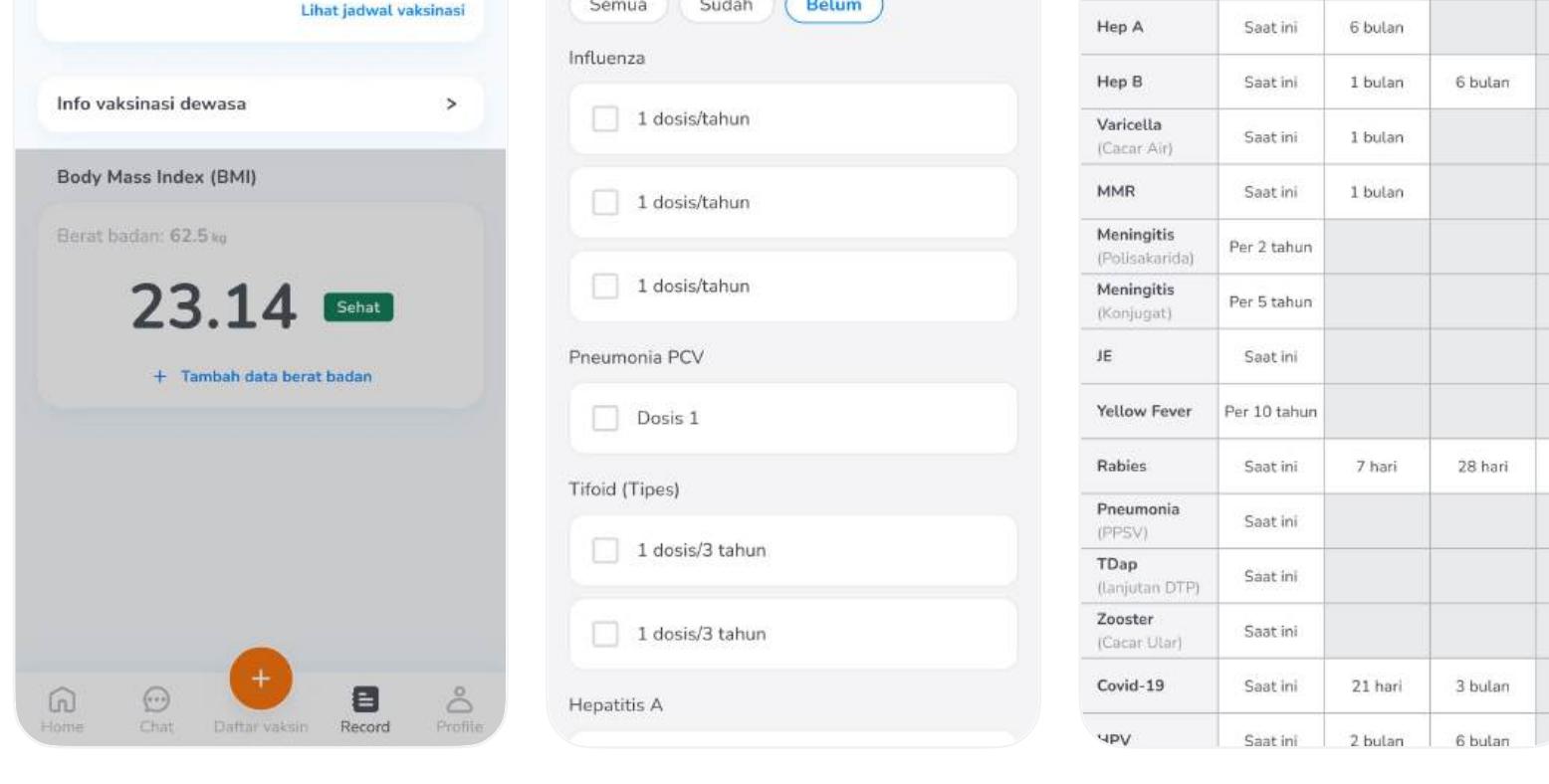


Hi-fi design (for children)



- Record page:** Displays information about required vaccinations based on the child's current age.
- Vaccination schedule page:** Shows the patient's vaccination schedule and indicates whether the vaccination has been administered.
- Vaccination summary page:** Provides a summary of all vaccinations received by the patient.

Hi-fi design (for adults)



- Record page:** Displays information about recommended vaccinations based on the patient's gender.
- Adult vaccination information page:** Shows recommended vaccinations and indicates whether the vaccination has been administered.
- Vaccination summary page:** Provides a summary of all vaccinations received by the patient.

These features collectively ensure a comprehensive and user-friendly digital vaccination record system, enhancing the overall experience for both users and the imuni team.

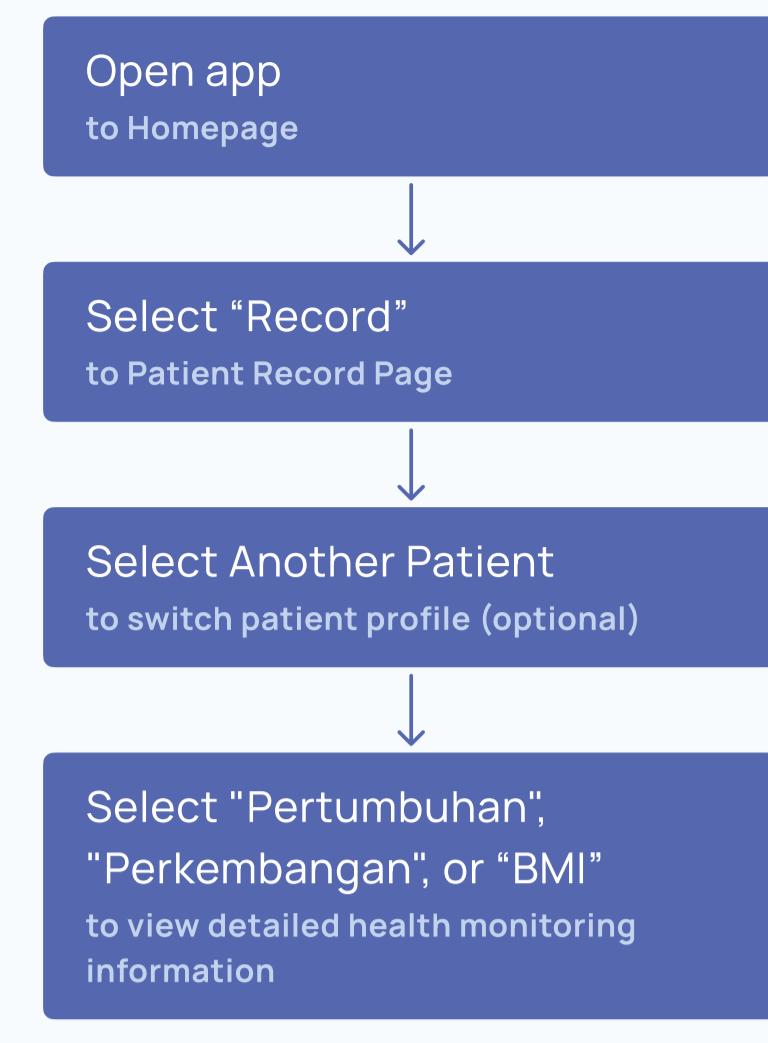
Results

Highlight 5: Health Monitoring (for both children and adults)

For children under 20 years old, this feature includes monitoring of vaccinations, growth, and development, with additional parenting tips.

For adults, it offers health check features, including tracking vaccination completeness and BMI self-monitoring, catering to the health needs of the entire family.

User Flow



Design process

Children growth & development monitoring

Hi-fi design

The screenshot shows the main dashboard for a child named Adhitama Ananda Putra. It includes sections for vaccination history (with a link to a full vaccination schedule), growth monitoring (showing weight 8.5 kg, height 68 cm, and head circumference 42 cm, all marked as 'Normal'), and development monitoring (showing developmental milestones like 'Bisa mengangkat kepala' and 'Bisa berdiri'). There's also a 'Rekomendasi MP-ASI dan lainnya' section.

Growth monitoring

This screenshot shows the 'Pertumbuhan' (Growth) section. It lists growth records with columns for Date, Weight, Height, and Head Circumference. Below is a graph titled 'Grafik berat badan terhadap umur' (Weight vs Age) showing weight in kg over time in months, with a blue line representing the child's growth compared to a range of yellow lines representing peers.

As an additional value for our users, we have included a feature for monitoring the growth and development of children:

1. Growth monitoring:

Users can input data such as weight, height, and head circumference. This data is compared with standards from our doctors to determine if the child's growth is within the normal range for their age.

2. Development monitoring:

Users answer questions about their child's developmental milestones. The answers will determine if the child is achieving motor skills and developmental milestones appropriate for their age.

These features offer parents valuable insights into their child's growth and development, allowing them to monitor their child's health and seek immediate medical advice if necessary.

Development monitoring

This screenshot shows the 'Perkembangan' (Development) section. It lists developmental milestones with 'Tidak' (No) and 'Iya' (Yes) buttons. Below is a survey form asking if the child can perform various actions like 'mengangkat kepala' and 'berdiri'. A 'Selesai' (Finish) button is at the bottom.

Adults health monitoring

Hi-fi design

The screenshot shows the main dashboard for an adult named Bayu Pratama Ananda. It includes vaccination history, BMI monitoring (showing BMI 23.14 as 'Sehat'), and a 'Body Mass Index (BMI)' section with a color-coded chart for BMI categories (15-32).

(BMI monitoring)

This screenshot shows the 'BMI' section. It lists BMI records with columns for Date, Weight, and Height. Below is a chart titled 'Body Mass Index' showing the BMI score 23.14, which is labeled as 'Sehat' (Healthy). A legend at the bottom defines BMI categories: Sangat kurus (< 17), Kurus (17 - 18.49), Normal (18.5 - 25), Gemuk (25.01 - 27), and Obesitas (> 27).

For adults, we have included a health monitoring feature focused on BMI (Body Mass Index) checks. Users can enter their weight and height to calculate their BMI and determine if they have an ideal weight based on their BMI score.

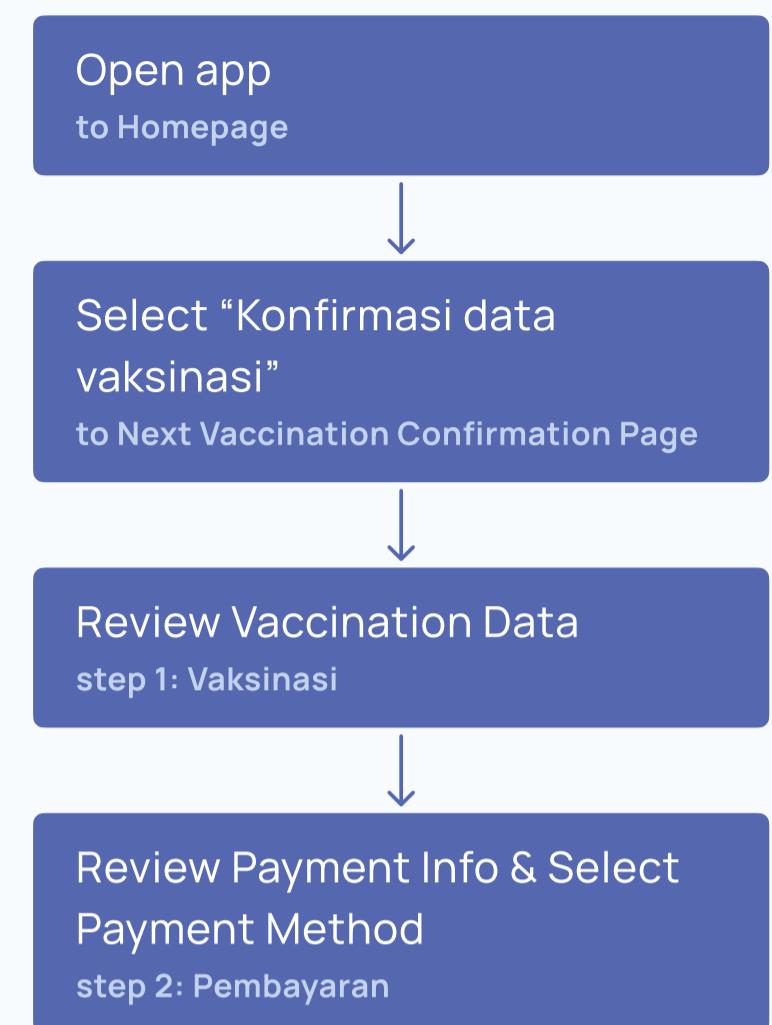
Results

Highlight 6: Streamlined next vaccination reminders

Previously, we manually reminded users a week before their next vaccination, requiring labor-intensive re-registration for each patient.

Our app's dedicated next vaccination reminder feature automates this process, allowing users to input details, review, and directly proceed with payments, significantly simplifying the process.

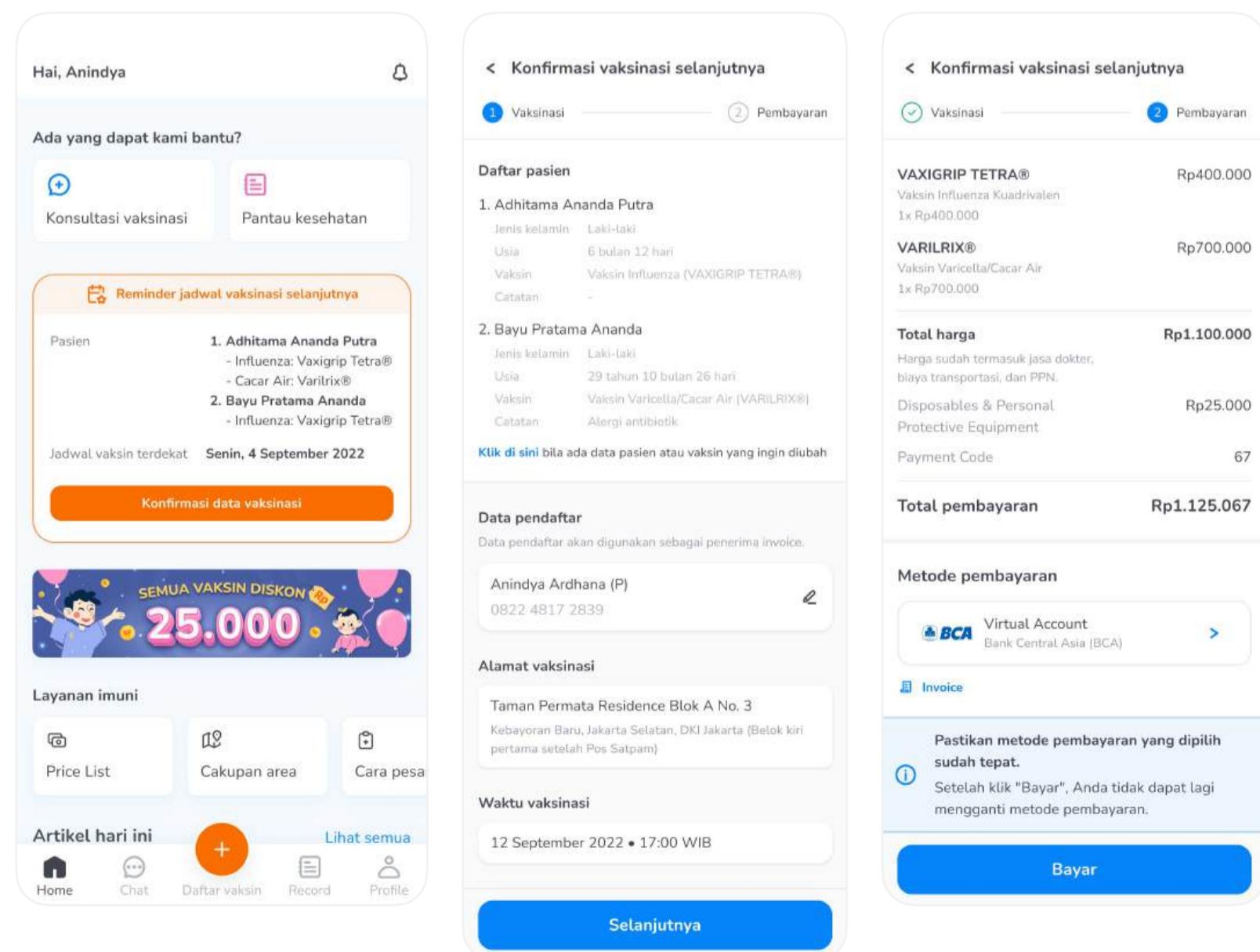
User Flow



Design process

Next vaccination reminders

Hi-fi design



For each upcoming vaccination, the doctor inputs the details of the patients who need to be vaccinated and the specific vaccines required, based on the agreement made during the previous visit. This pre-filled information allows users to simply confirm the details: the registrant, vaccination address, and the schedule.

Once all the necessary information is confirmed and complete, users can review the data and proceed to payment. This design reduces the effort from users, ensuring a more efficient process for scheduling and confirming their next vaccination appointment.

Results

Highlight 7: Homepage

The homepage of the app is designed to highlight all user needs and display important information accessibly.

Design process

Homepage

Wireframe



Hi-fi design



Homepage allows users to easily access imuni's core services, such as vaccination consultations with doctors and patient health monitoring. Users can also view real-time updates on their vaccination process from our homepage.

Additionally, our homepage features the latest information about imuni, including available promotions. It also provides details about our various services, ensuring our users are aware of all their options. Finally, our homepage includes health-related articles.

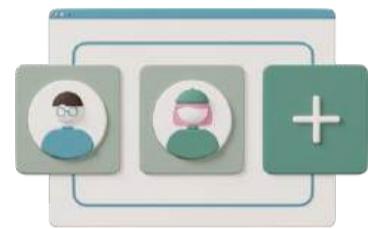
Achievement

Achieved 80% of our sales revenue through our new digital system

As a result of our innovative digital system (which consists of our user mobile app and dashboard), we were able to achieve 80% of revenue through digital channels.

Other impacts

Our initiative to create an integrated digital system, consisting of a mobile app for users and a back-office web for our team, has led to several significant impacts:



1. Better onboarding

Faster and more user-friendly new user registration, resulting in rapid growth of our users and orders.



2. Efficient order processing

Centralized vaccination records have reduced errors and data loss, making the order processing more efficient.



3. Scalability

Designed for our growing user base & order volume, this system able to accommodating our expanding operations.



4. Data-informed decision making

The system provides valuable insights, allowing us to make data-driven improvements in our services and user engagement strategies.

Things I've learned from this project



1. Interdisciplinary collaboration

Learned how to communicate effectively across disciplines and leverage diverse expertise to create stronger solutions.



2. Alignment with developers

Built mutual understanding with the tech team, aligning goals to ensure both quality and feasibility of the product.



3. Efficient customer journey

Designed streamlined and flexible user flows that improved usability across different customer scenarios.