

# UI/UX Case Study: Health Monitoring Application in Nepal

**Tools Used:** Figma, Google Forms, Zoom, Maze  
**Duration:** 6 Weeks  
**Role:** UX Designer and Researcher

## Abstract

This case study documents the end-to-end UI/UX redesign of a health monitoring application tailored for users in Nepal. The project involved user research, wireframing, prototyping, usability testing, and localization for accessibility. The goal was to enhance usability and inclusivity across demographics, particularly rural users and elderly populations.

## 1. Introduction

Nepal's healthcare landscape is challenged by limited access to continuous monitoring tools and digital literacy issues. This redesign initiative aims to bridge that gap by creating an accessible, user-friendly mobile health application to monitor vital signs and manage medical schedules. The approach emphasizes inclusivity, simplicity, and cultural relevance.

## 2. Research Objectives

- Identify usability issues in existing health tracking apps
- Understand the needs and behaviors of Nepalese users across age and region
- Inform a design solution that addresses technical limitations, language barriers, and trust concerns

## 3. Methodology

### 3.1 Primary Research

- Surveys** (n=58): Distributed via Google Forms targeting urban and rural users
- User Interviews** (n=10): Conducted remotely with participants aged 18–65+
- Usability Testing**: Conducted on low and high-fidelity prototypes using Maze

### 3.2 Secondary Research

- Competitive analysis of apps such as TDO Nepal, Hamro Swasthya, and Google Fit
- Literature review on mobile UX design for low-bandwidth environments

## 4. Key Findings

Theme	Observations
Language Preference	60% preferred Nepali or bilingual interface
Navigation Difficulty	40% struggled with existing UI complexity
Accessibility	Older users found text small and colors indistinct
Offline Functionality	70% expected the app to work offline
Trust and Transparency	Users wanted clear information on data privacy

## 5. Problem Definition

How might we redesign the health monitoring app to make it more accessible, culturally relevant, and intuitive for users in Nepal, especially elderly and rural populations?

## 6. Information Architecture

The redesigned app organizes content into four primary sections:

- Vitals Dashboard:** Heart rate, blood pressure, oxygen saturation
- Appointments:** Schedule and reminders for check-ups or telehealth sessions
- Medication Tracker:** Daily reminders and medication logs
- Health Resources:** Articles and tips in both English and Nepali

Navigation is facilitated via a bottom tab layout with clear icon-text pairing.

## 7. Design Process

### 7.1 Wireframing

Low-fidelity wireframes were created in Figma and validated with five users. Key features included:

- Bottom navigation with descriptive icons
- Dashboard layout with card-based design
- Large buttons for key actions to aid elderly users

### 7.2 Design System

- **Typography:** Poppins (Latin script), Noto Sans Devanagari (Nepali script)
- **Color Palette:** High-contrast neutral and health-themed tones
- **Component Library:** Built in Figma to ensure consistency
- **Accessibility:** All contrast ratios and font sizes met WCAG AA standards

## 8. High-Fidelity Prototype

The prototype was built in Figma, reflecting the final visual design and interactive behavior. Key screens included:

- Welcome and language selection
- Vitals tracking (manual and device sync options)
- Appointment booking
- Medication reminders
- Emergency contact screen

## 9. Usability Testing

The interactive prototype was tested with seven users via Maze.

Task	Success Rate	Avg. Time	Observations
Logging Heart Rate	100%	8 seconds	Clear and fast interaction
Setting Medication Reminder	85%	18 seconds	Minor confusion on time toggle
Switching Language	100%	5 seconds	Immediate comprehension
Booking a Telehealth Appointment	72%	22 seconds	Button label required refinement

### Iterative Changes

- Changed "Book Doctor" to "Talk to Doctor" for clarity
- Added toggle indicators for AM/PM
- Enhanced visibility of primary actions on all screens

## 10. Localization and Cultural Considerations

- Bilingual UI: Users could toggle between Nepali and English
- Nepali calendar (Bikram Sambat) option for appointment scheduling
- Localized health content written in simple Nepali
- Offline caching for vital logs and reminders

## 11. Impact and Outcomes

- Task completion time reduced by 42% on average compared to the baseline
- 95% of users described the UI as "intuitive" or "easy to use"
- Improved accessibility ratings, especially among users aged 50+
- Final prototype successfully handed off for development using component specifications in Figma

## 12. Limitations

- User testing was limited to smartphone users with internet access
- Did not cover in-depth integration with wearable medical devices
- Further testing is needed in regions with extremely low digital literacy

## 13. Future Work

- Implement voice-assisted navigation for non-literate users
- Introduce chatbot-based health Q&A in Nepali
- Conduct longitudinal studies post-deployment for usage patterns
- Scale design to include doctor-side telehealth portal

## 14. Conclusion

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This case study demonstrates the importance of contextual, user-driven UI/UX design in healthcare applications. By focusing on Nepal's specific user needs—language, accessibility, and trust—this health app redesign aims to close the gap in digital healthcare access and encourage long-term user engagement.