

# AI-Based Healthcare Access Chatbot

Team Name:

**NeuralWave**

Green University of Bangladesh

Contact

✉ [aburayhan2550@gmail.com](mailto:aburayhan2550@gmail.com)

Phone Number: +88 01628171665

# The NeuralWave Team: Expertise for Social Impact

Our team combines deep expertise in artificial intelligence, full-stack development, and user-centric design to create robust solutions for underserved communities.



## MD Abu Rayhan Imran

Team Leader & Data Scientist  
& AI Model Specialist

Skilled in Data Handling, ML, DL and predictive modeling for health risk assessment.

Leads whole team. [Github](#)

[LinkedIn](#)



## Ismail Hossain

ML Engineer & Developer

Skilled in ML and predictive modeling for health risk assessment. Leads model development. [Github](#)

[LinkedIn](#)



## Firuz Shameha

Backend & Frontend Developer

Experienced in Django, React.js, and RESTful APIs, ensuring a stable and scalable platform. [Github](#)

[LinkedIn](#)



## Promod Chandra Das

Frontend Developer & Demo Specialist

Expert in intuitive UI/UX design and product visualization for maximum user accessibility. [Github](#)

[LinkedIn](#)



# The Critical Challenge: Unequal Healthcare Access

Millions in rural Bangladesh face a severe lack of timely healthcare, leading to preventable complications and high mortality rates.

## Geographic Barriers

Patients face **long travel times** to clinics or hospitals, often relying on poor infrastructure for emergency care.

## Lack of Immediate Guidance

No immediate, reliable guidance on symptom severity, resulting in unnecessary or **delayed referrals** to overwhelmed urban centers.

## Consequences: Delayed Diagnoses

This systematic disparity results in delayed diagnoses, contributing to **avoidable complications** and unequal health outcomes between populations.

“In rural Bangladesh, geography often determines life or death.”

# Market Opportunity: Digital Health Revolution

A vast, underserved rural population combined with rapid digital adoption creates an immediate and substantial market for our solution.



**Rural Population**  
Percentage of Bangladesh's population living in rural areas with limited primary healthcare access.



**Digital Growth**  
Annual increase in smartphone and internet penetration, making digital solutions viable.



**Digital Health Sector**  
Projected value of the digital health sector by 2030, showing massive scale potential.

We aim to reach over **5 million underserved users** immediately by targeting rural patients, health NGOs, and government health departments.

# The Solution: An AI-Driven Healthcare Bridge

The NeuralWave Chatbot is an AI-driven multilingual tool designed to provide quick, reliable, and localized healthcare support within seconds. [Demo website link](#)

1

## Symptom Assessment

Initial guidance and accurate assessment of symptom severity.

2

## Bilingual Accessibility

Full support in both **Bangla** and **English** to ensure broad accessibility.

3

## Local Connectivity

Direct links to nearby local hospitals and emergency ambulance services.

4

## Health Tracking

Personalized user panel for health monitoring and history tracking.

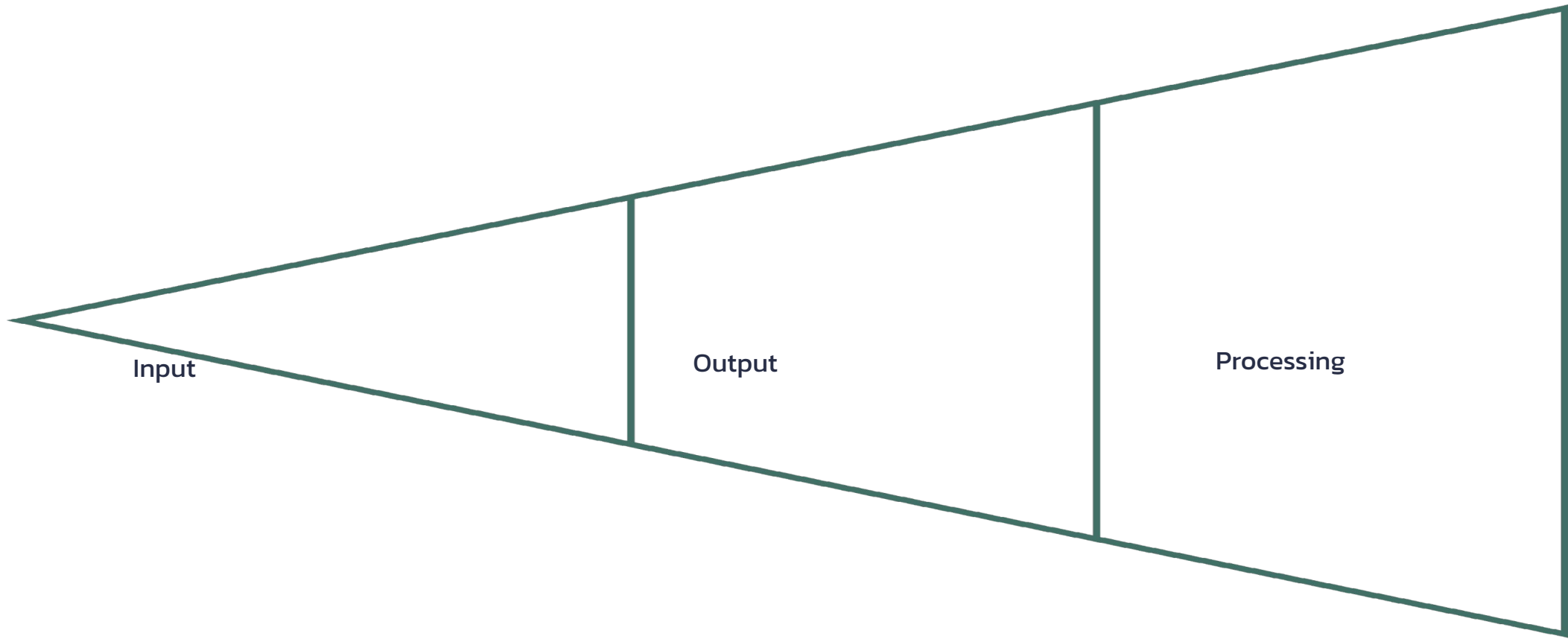
5

## Admin Dashboard

Data-rich interface for healthcare providers to monitor regional trends.

# AI Integration: Intelligent Diagnostics and Triage

Our core strength lies in leveraging cutting-edge machine learning and NLP tailored specifically for the context of Bangladeshi healthcare needs.



**Context-Aware NLP**

Uses Hugging Face Transformers to understand nuanced health queries in both native Bangla and English.

**Predictive Diagnostics**

Trained ML models predict common regional health risks (e.g., heart, liver, colon issues).

**Triage Logic**

A robust Decision Tree model performs instant triage and urgency detection for safe referrals.



# Unique Value Proposition: Localized Excellence

NeuralWave is more than a generic chatbot; it is a dedicated healthcare bridge built specifically for the rural Bangladeshi context.

## True Localized Focus

Our models are trained on common local health issues, providing more relevant and accurate advice than generic international solutions.

## Full Ecosystem Connectivity

We connect patients not only to information but to actionable services: hospitals, doctors, and emergency response teams.

## Seamless Bilingual Interface

Accessibility is paramount, ensuring users can communicate effectively in their preferred language (Bangla/English).

□ We are not just a chatbot—we are solving the logistical gap in last-mile healthcare delivery.



# Business & Revenue Strategy

We are pursuing a mixed revenue model focused on sustainable institutional partnerships and high-value data insights.

## Revenue Streams

- Institutional Subscriptions:** Annual licenses for private hospitals and telemedicine firms.
- Government/NGO Partnerships:** Large-scale deployment contracts for rural health campaigns.
- Data Insights:** Anonymous, aggregated data analytics sold to health research agencies (e.g., WHO, Johns Hopkins).
- Freemium Model:** Basic individual access remains free, promoting mass adoption.

## Partnership Pricing

Basic Individual Access	Free
Institutional License (Annual)	Starting from 20,000
Government/NGO Pilot	Custom Quote



# Scaling Plan: Go-to-Market and Milestones

Our staged approach focuses on validating the solution in key rural areas before a nationwide expansion driven by strategic partnerships.





Key Metric: Active Users



Key Metric: Chatbot Accuracy



Key Metric: Diagnosis Delay Reduction

# Next Steps and Funding Ask

We are poised to move from pilot to deployment and require strategic support to maximize our social impact.

---

## Our Immediate Next Steps (6 Months)

- Secure rural district partnerships and deploy the pilot chatbot.
- Integrate robust voice-based interfaces to aid low-literacy users.
- Launch targeted awareness campaigns in partnership with local administration.

## How SOLVIO Can Help

**Seed Funding Ask: ₹15 Lakh**

Primarily for cloud hosting, infrastructure scaling, and advanced model training.

We also seek mentorship from health-tech experts and key government/NGO partnerships for large-scale deployment.

# Empowering 5+ Million Rural Lives

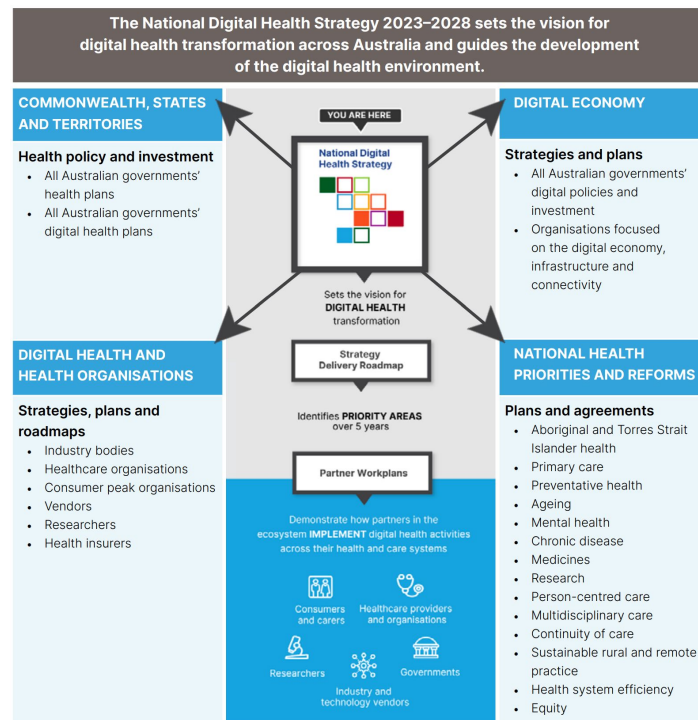
## Financial Projections & Quantifiable Milestones

Our three-year roadmap focuses on aggressive user acquisition and significant revenue growth, validated by key performance indicators (KPIs) that track impact and operational efficiency.

## Year 1: Validation & Pilot

**Users:** 5,000 active users

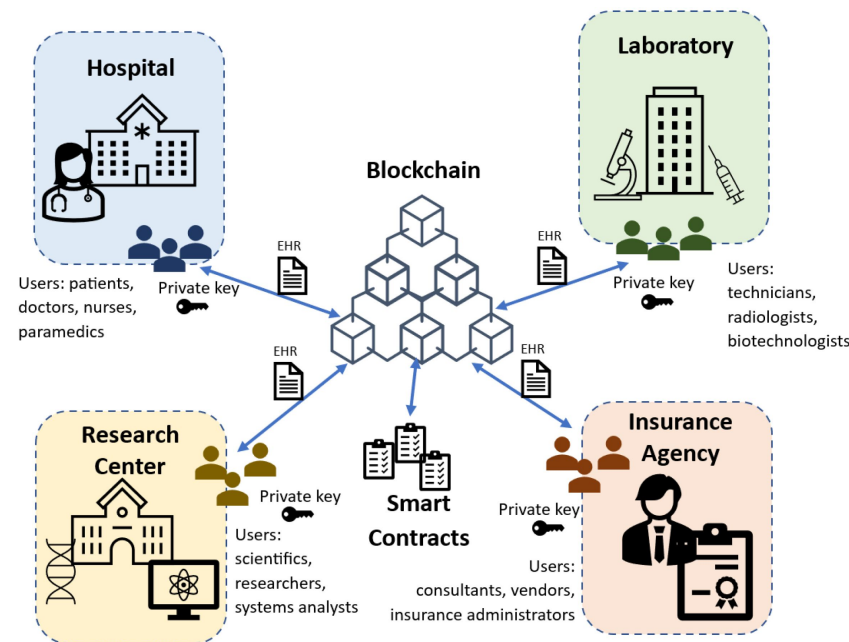
**Revenue: ₹10 lakh**



## Year 2: Integration & Growth

**Users:** 25,000 active users

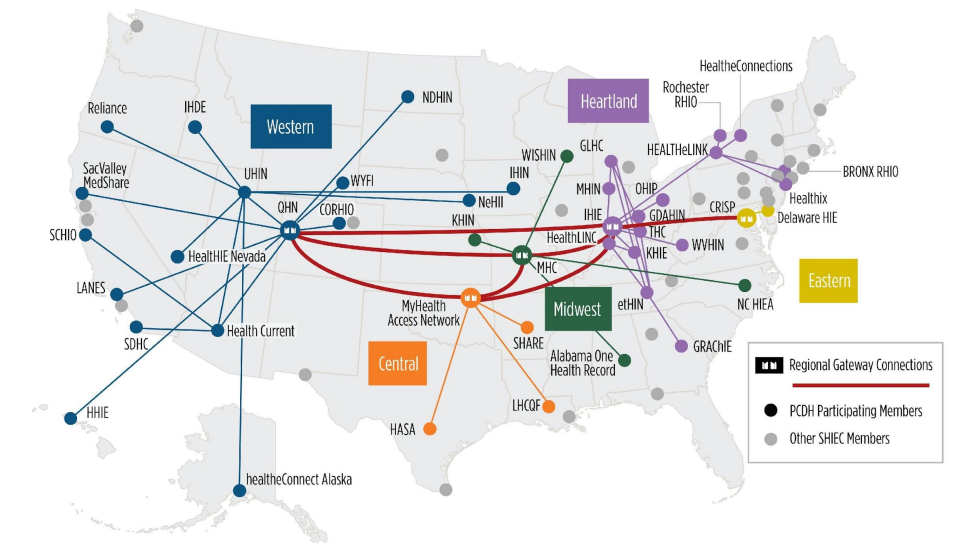
**Revenue: ₹50 lakh**



## Year 3: Nationwide Scale

**Users:** 100,000+ active users

**Revenue: ₹2 crore**



# Investment Ask ?

**Seed Funding: ₹15 Lakh**

This capital is critical for cloud hosting, scaling our infrastructure, and developing advanced, localized AI models.

In addition to funding, we seek **strategic mentorship** from leading health-tech experts and essential **government/NGO partnerships** for rapid, large-scale deployment across target regions.

### Immediate Next Steps (6 Months)

1

**Secure Rural Partnerships**  
Finalize agreements with key district administrations to launch the initial chatbot pilot program.

2

**Integrate Voice Interface**  
Develop and integrate robust voice-based technology to ensure accessibility for low-literacy users.

3

**Launch Awareness Campaigns**  
Execute targeted campaigns in partnership with local authorities to drive adoption and trust.



**Empowering 5+ Million Rural Lives.**