



AI-Based Healthcare Access Chatbot

Team Name:
NeuralWave
Green University of Bangladesh

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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.

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

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.

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.

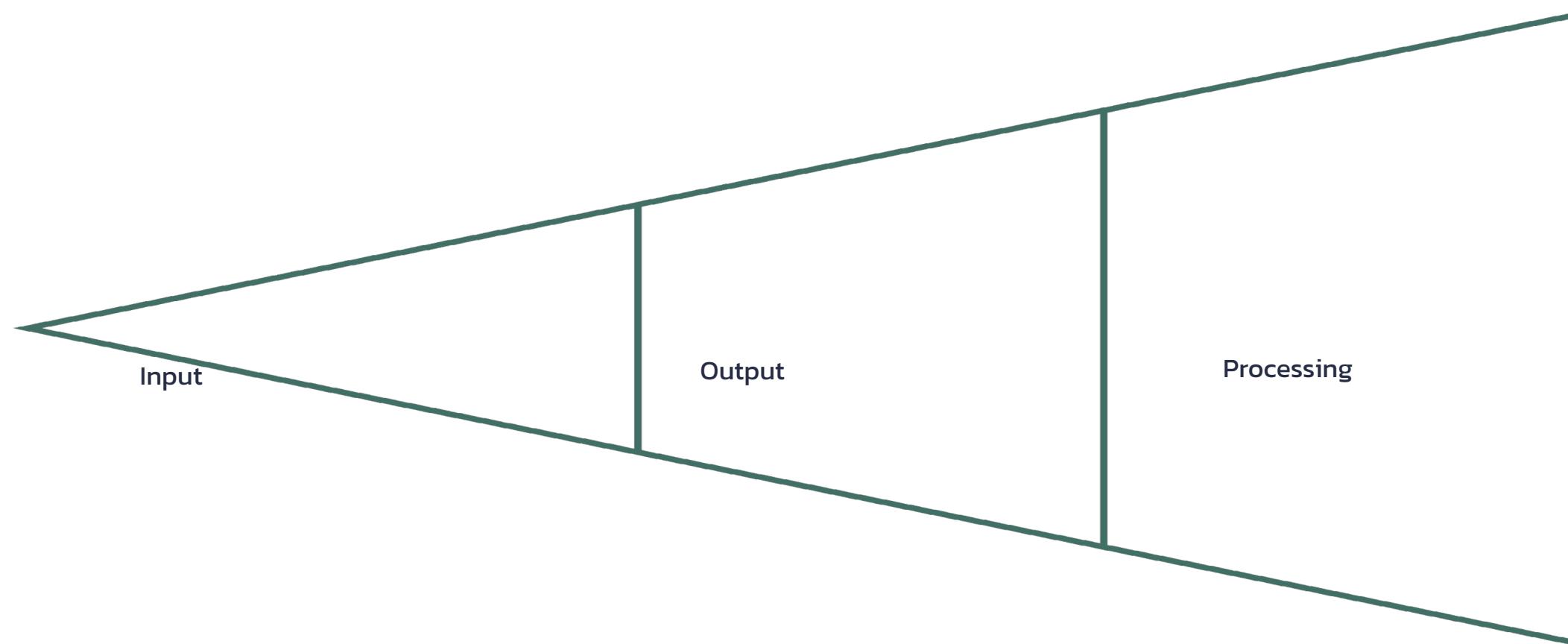
5

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.



Seamless Bilingual Interface

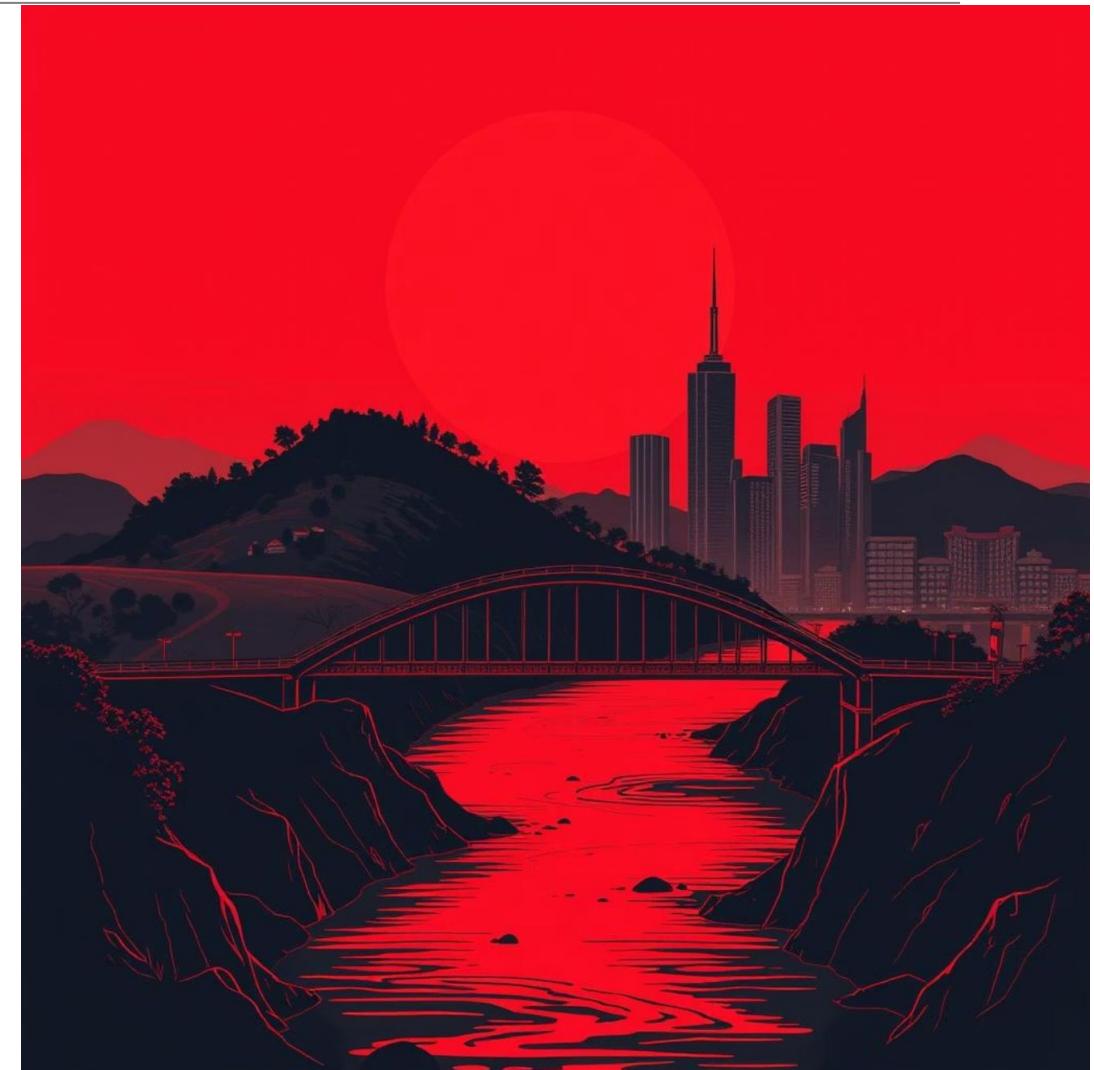
Accessibility is paramount, ensuring users can communicate effectively in their preferred language (Bangla/English).



Full Ecosystem Connectivity

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

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.

Year 1: Validation & Pilot

MVP launch and pilot testing in 2-3 target districts (e.g., Rangpur, Rajshahi). Aim: **5,000 active users** and ₹10 lakh revenue.

Year 3: Nationwide Scale

Achieve nationwide deployment via large-scale NGO/Government contracts. Aim: **100,000+ active users** and ₹2 crore revenue.

Year 2: Integration & Growth

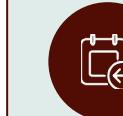
Integrate with major telemedicine platforms. Expand to additional districts. Aim: **25,000 active users** and ₹50 lakh revenue.



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

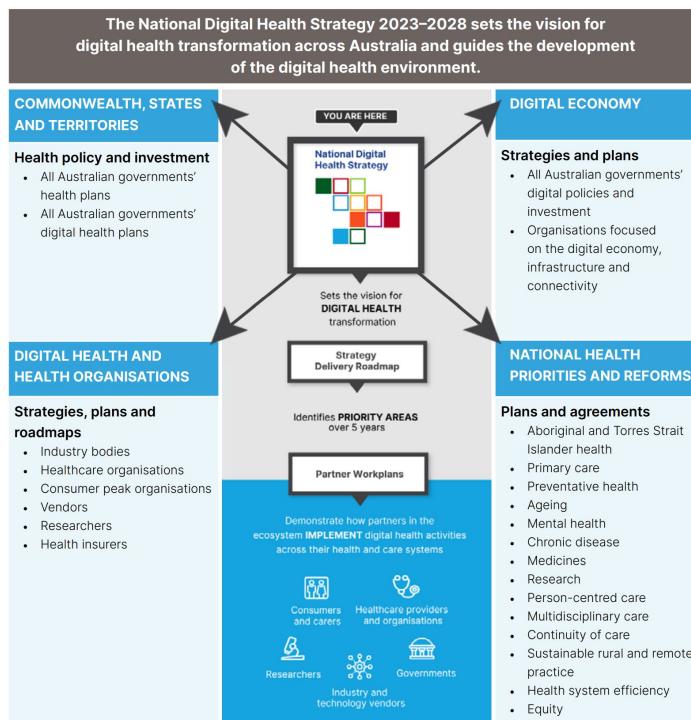
Financial Projections & Quantifiable Milestones

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

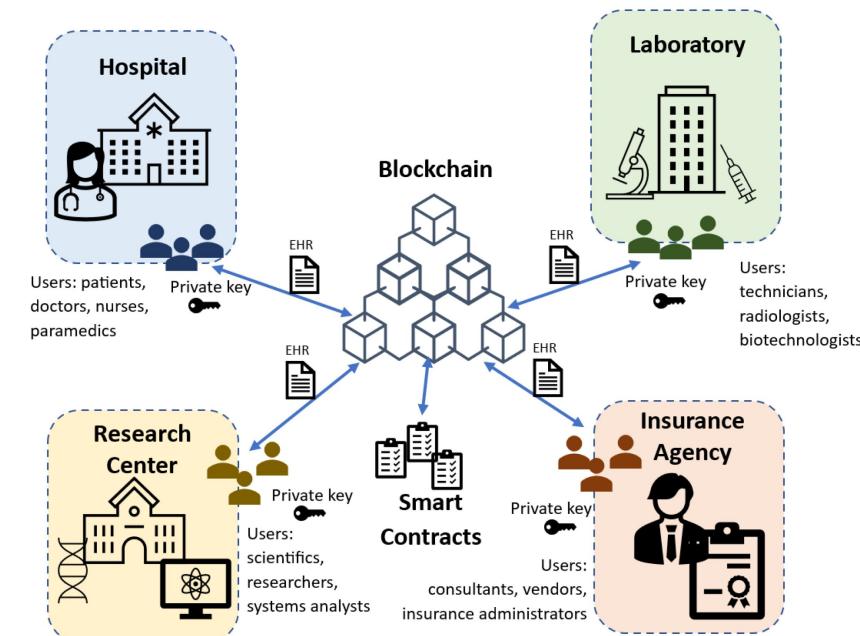
Revenue: ₹10 lakh



Year 2: Integration & Growth

Users: 25,000 active users

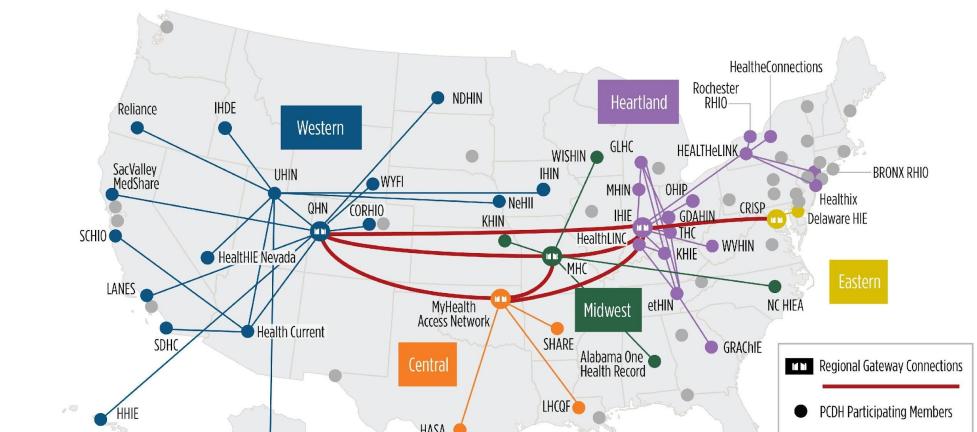
Revenue: ₹50 lakh



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.