StrokeCare AI

Golden Hour Stroke Lifesaver

Empowering Emergency Stroke Response with AI Call Center

Indonesia Healthcare AI Hackathon 2025

Team StrokeCareAI

Ariman – System Engineer, Simulation

AF. Nasution – Information Technology

TF. Pradatama – Research

RN. Afifuddin – System Information

Ns. Aghniya Cascara Ahmad – Medic

Get Well Again!

StrokeCareAI

Problem Statement: Indonesia's Stroke Crisis

Stroke is the #1 leading cause of death in Indonesia (19.42% of all deaths)

2.3 million stroke cases annually

Prevalence: 8.3 per 1,000 population (2023)

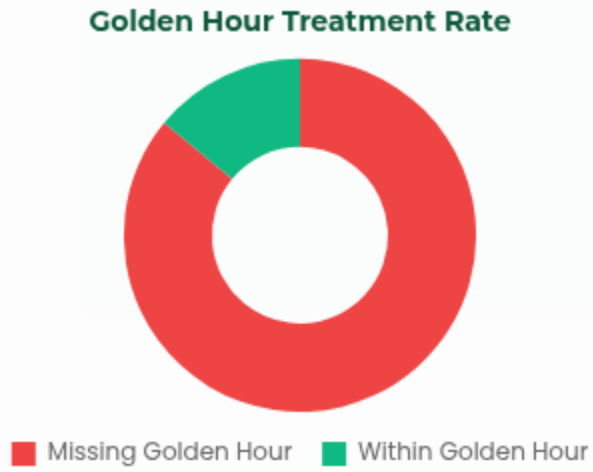
11.2% of total disabilities, 18.5% of deaths

Massive cost: BPJS IDR 5.2T (Top 3 highest)

Golden hour treatment is only achieved in 14-18% of cases

Early detection remains low (11.3% of 90% target)

Critical Gap



86% of patients miss the crucial golden hour window

Our Solution: StrokeCare AI Call Center

Real-time AI Voice Agent guides callers through FAST protocol

24/7 voice access, no smartphone required

Automatic ambulance dispatch integrated with stroke-ready hospitals

Technology stack:

Twilio Voice Gateway | Deepgram Voice Agent | STT+AI+TTS | FAST Protocol AI

Optimized for the 4.5-hour critical golden window – 'Time is Brain'

How It Works

Stroke Emergency Call
Any phone, any time

AI Voice Assessment
Real-time FAST Protocol

Ambulance Dispatch
To nearest stroke-ready hospital

Golden Hour Treatment
Life-saving intervention

Unique Value: First AI-powered stroke voice hotline in Indonesia with universal accessibility and real-time response

Market Opportunity & Target

Indonesian Stroke Market

2.3 million annual stroke cases in Indonesia

67% rise in young stroke cases in the last decade

Digital health market: $2.64B by 2025

Stroke is the #1 cause of death in Indonesia

Target Segments

Primary Target

Families with stroke history (2.3 million people)

90%

Secondary Target

Hypertension & diabetes patients at high risk

75%

Tertiary Target

General productive-age population (25-65 years)

60%

StrokeCare AI addresses all three segments with our voice-first approach, making critical care accessible regardless of technology literacy

Product Demo: StrokeCare AI in Action

Live Simulation of Stroke Emergency Call

Caller:

"My father suddenly has slurred speech and his face looks uneven. What should I do?"

StrokeCare AI:

"I'll help assess your father using the FAST protocol. This could be a stroke - time is critical!

Let me guide you through the assessment..."

FAST Protocol Assessment

Face
"Ask him to smile - is his smile uneven?"

Arms
"Ask him to raise both arms - does one drift downward?"

Speech
"Ask him to repeat a simple phrase - is speech slurred?"

Time

Stroke Confirmation

Ambulance Dispatched
ETA: 7 minutes

Hospital Notification:

Nearest stroke-ready hospital has been notified of incoming stroke patient

While Waiting Guidelines:

Position patient on side

Loosen tight clothing

Do not give food or drinks

AI remains connected until ambulance arrives

4.5h

Golden Hour Window

Every minute saves 1.9 million brain cells

Business Model

Government Partnerships (60% Revenue)

Kemenkes National License: IDR 10-20M per region

119 Integration: Stroke-specific routing protocol

Stroke-Ready Hospital Network: IDR 2-5M per hospital

BPJS Integration (30% Revenue)

Emergency call coverage: IDR 50K per stroke call

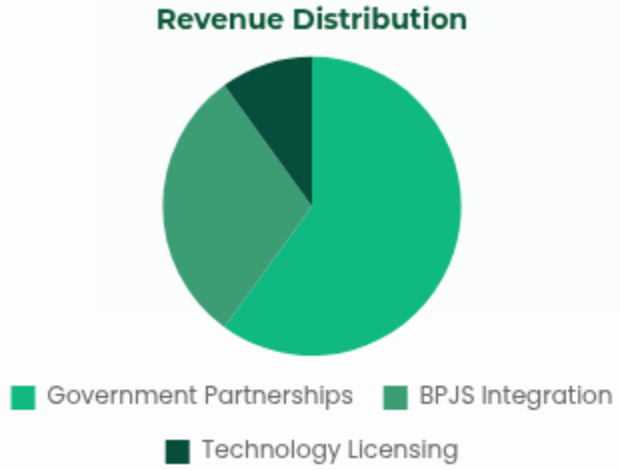
Golden hour bonus: Extra reimbursement for <4.5 hour treatment

Prevention program: Early detection incentives

Technology Licensing (10% Revenue)

FAST Protocol AI: License to other countries

Revenue Distribution



Economic Advantages

Cost per call: IDR 2,000 (vs IDR 30,000 traditional)

Lives saved: 2,000+ annually

Healthcare cost reduction: IDR 1B annually

Competitive Landscape

Features	StrokeCare AI	FAST Rescue App	Traditional 119
Interface	Voice AI 24/7	Mobile App	Human Operators
Accessibility	Any phone	Smartphone only	Limited hours
Stroke Focus	100% specialized	Stroke-specific	General emergency
FAST Protocol	AI-guided real-time	Self-assessment	Not integrated
Response Time	0 seconds	User dependent	2-5 minutes
Language	Natural Indonesian	Text-based	Formal procedures

StrokeCare AI Competitive Advantages

First AI-powered stroke voice hotline in Indonesia
Breaking barriers to emergency access

Real-time FAST protocol guidance
Vs self-assessment with uncertain accuracy

Meet the StrokeCareAI Team

Ariman
System Engineer, Simulation

Expert in healthcare system simulation and technical architecture design for medical emergency response systems.

AF. Nasution
Information Technology

Specialized in AI systems development with extensive experience in voice recognition technologies and emergency systems.

TF. Pradatama
Research

Data scientist focused on stroke pattern recognition and golden hour optimization research in Indonesian healthcare settings.

RN. Afifuddin
System Information

Expert in healthcare information systems integration with focus on emergency dispatch and hospital networks.

Ns. Aghniya Cascara Ahmad
Medic

Experienced medical professional specializing in emergency care and stroke protocol implementation. Provides critical medical expertise for the FAST Protocol AI development.

Financials & Impact

Year 1: IDR 50M revenue, 25,000 emergency calls

Year 3: IDR 800M revenue, 400,000 calls, national scale

2,000+ lives saved per year with golden hour improvement

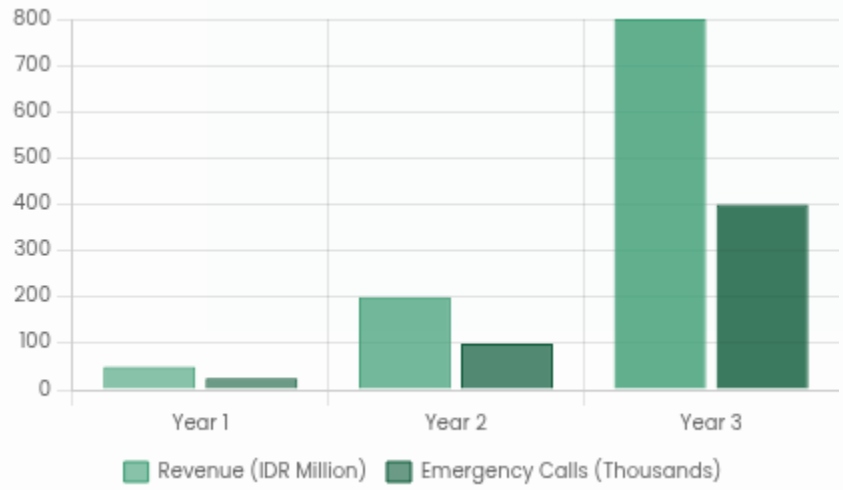
5,000+ disabilities prevented, IDR 1B in health cost reduction

40% increase in golden hour treatment rate (from 14% → 40%)

Life-Saving Impact
Every 100 calls to StrokeCare AI potentially saves 8 lives through faster treatment

Quality of Life Improvement
20% reduction in post-stroke disability through golden hour optimization

Revenue Growth Projection



3-Year Sustainable Growth Model

14% → 40%

IDR 1B

StrokeCare AI: Financially sustainable with measurable health outcomes

Ask & Next Steps

Partnership Requests

- **Ministry of Health**
  National Stroke Program Integration
- **Indonesian Stroke Society**
  Medical Protocol Validation
- **119 Emergency Services**
  Stroke-specific Routing
- **Stroke-Ready Hospitals**
  Direct Admission Pathway

Funding Requirements

Development FAST AI Protocol & Voice Integration	**IDR 40M**
Year 1 Operations Infrastructure & Marketing	**IDR 200M**
Total Investment For 25,000 stroke emergency calls	**IDR 240M**

Implementation Roadmap

1. **Week 1-2**
   FAST Protocol AI development & neurologist validation
2. **Week 3-4**
   Pilot launch Jakarta (3 stroke-ready hospitals)
3. **Month 2**
   Scale to Java island (20 hospitals)
4. **Month 3-6**
   National rollout (100+ stroke-ready hospitals)

Expected Outcomes

2,000+ lives saved in Year 1

40% golden hour improvement

IDR 1B healthcare savings

National stroke response system

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