



# Sathi

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# Health care in Rajasthan: A lack between need and feed



# What is Problem ?

- The present health scenario is a toxic combination of uneven quality, high cost, frequent errors and limited access for marginalized population.
- It is observed that 70% of population has no access to specialist care as 80% of specialists live in urban areas
- The quality of the public service is abysmal and unregulated.



# What is Problem ?

- Location of PHCs and CHCs a far of distance from rural areas procures a heavy daily loss of wages.
- This leads the rural people accessing facilities of private health care practitioners, usually unregistered at affordable charges in their villages



# Problem Statement

- To reachout maximum rural areas and provide affordable treatment and diagnostic cost.
- To make health policy for the end-user according to the requirement and need
- Eliminate the untrained , unregistered and unethical medical practitioners(Bhopas).



# Some Facts

- 77% of deaths in India accounts of diseases and poor health
- Highest number of deaths during child birth and death of children below age of 5
- Latest “Gross Burden of Disease” Report says that India ranked 154<sup>th</sup> among 195 countries



# Some Facts

- According to CAG, state government could not provide all the basic infrastructural facilities in 75.77% of rural health centre.
- 62.3% Health centres were constructed at inaccessible and uninhabited locations.
- Only 13% of rural population have access to primary health centers





Sathi





# Saathi – A feed for the need

- **A low cost IoMT device to simplify capable diagnostic procedures.**
  - ECG – ElectroCardiogram Sensor
  - EMG – ElectroMyography Sensor
  - Body Temperature
  - Glucose Meter
  - Blood Pressure
  - GSR – Galvanic Skin Response Sensor
  - Pulse and Oxygen in Blood Sensor



- Keep track of health records of individual and make them easily accessible by PHCs
- Collect data, organize it and generate various graphs , maps and gives a input to the PHCs to create different health benefits for villages



- An early medical diagnostic system generates alerts and notification about the possible health diseases by using various algorithms.
- A platform connecting patient to doctors and PHCs.



# Why we need IoMT?

- The IoMT can help monitor, inform and notify not only caregivers, but provide healthcare providers with actual data to identify issues before they become critical or to allow for earlier intervention



# Buisness Model

- **Key Partners**

- National Rural Health Mission
- Medical, Health & Family Welfare Department
- Individual
- Health Lifestyle organizers
- Health insurance Companies



# Buisness Model

- **Revenue Stream**

- Collab with Government under PPP – Public Private Partnership
- NGO and other Non- Profit teams
- Direct Sales to consumers/Pateint for use.
- Insurance Companies



# Buisness Model

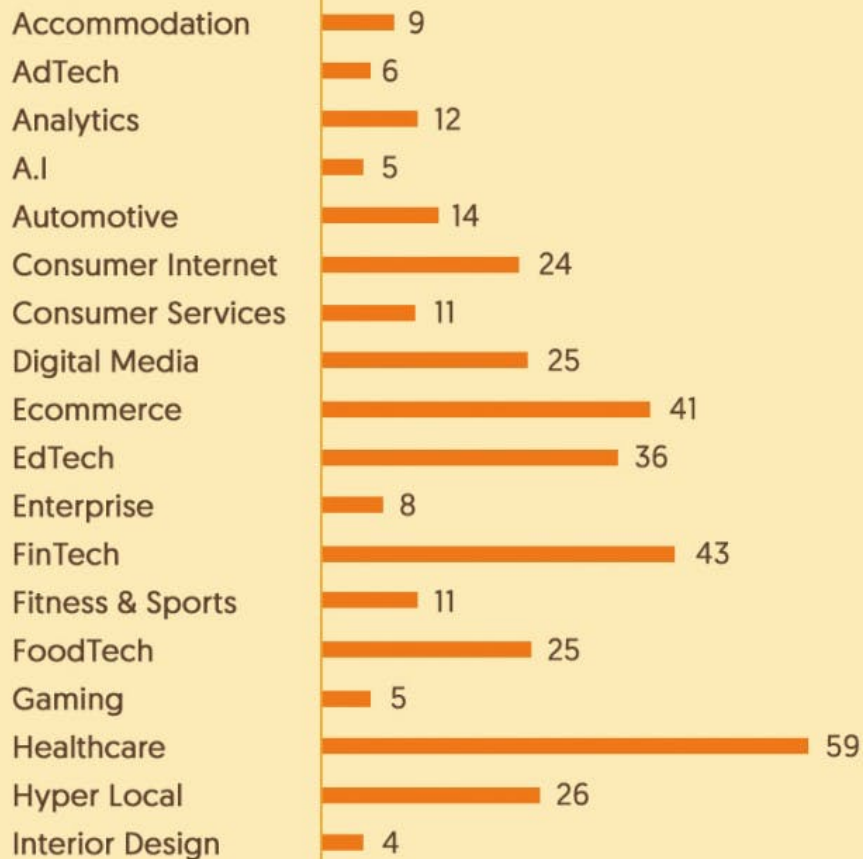
- **Value Propositions**

- Product/Platform for PHCs/Pateints/Doctors
- High quality service efficiency and effectiveness.
- Easily accessible and flexible for citizens and medical staff
- Storage of personal health information on a blockchain a decentralized network.
- Early detection and prevention of disease by performin algorithms on the data collected.



# Market Size

## NUMBER OF DEALS IN MAJOR SECTOR IN Q1 FY 2016





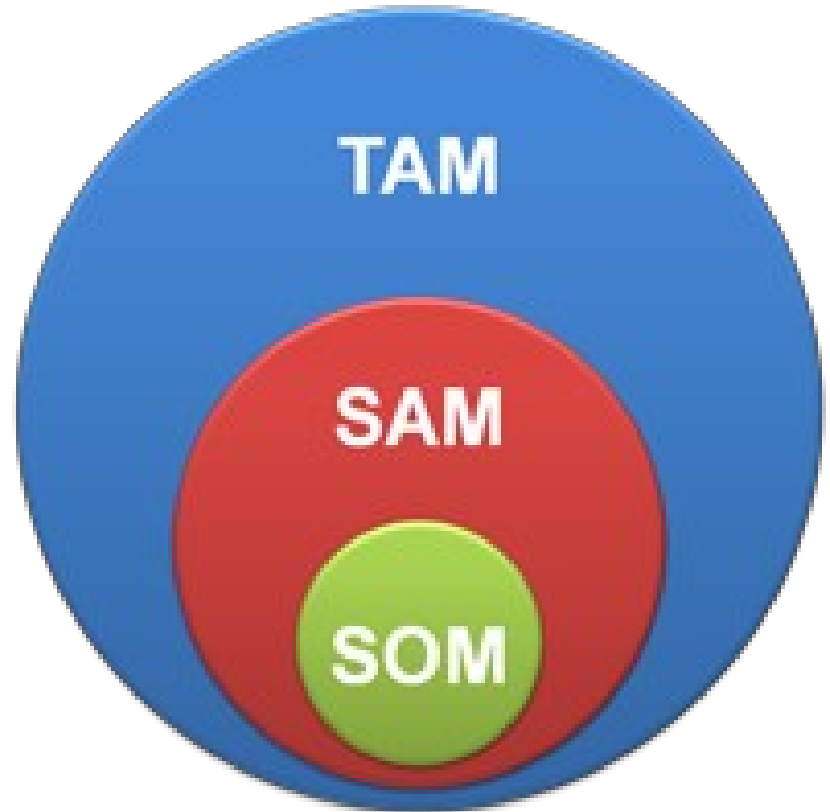
# Market Size

- **In Rajasthan , we have**
  - CHC – Community Health Center – 581
  - PHC – Primary Health Center – 2326
  - Sub Center - 15172



# Market Size

- **Total Available Market**
  - Population of Rural  
51,500,352
- **SAM- Serviceable Available Market**
  - People going to PHCs  
6,695,045
- **SOM - Serviceable Obtainable Market**
  - Targeted Audience  
1,437,358
  - Target City - Jaipur,  
Jodhpur, Udaipur, Alwar



# Competition

- **Health Care Platform**
  - Practo Search, Credihealth.com, Lybrate
- **Medical Devices and Diagnostics**
  - Perfint Technologies, Biosense Technologies
- **Digitising and tracking platforms**
  - Practo Ray , eKincare



# What's the difference?

- We are unique from our competitors across the diagnostic and blockchain healthcare space due to our profound product and data privacy model.
- Systems rely on highly scalable precision and bioinformatics platforms
- We do not regard other solution providers as competition: rather invite them to work with us to form a better and strong medical ecosystem to create seismic changes in rural areas



# Why Blockchain ?

Append-only  
distributed system of  
record shared across  
business network

## Shared ledger

## Smart contract

Business terms  
embedded in  
transaction database  
& executed with  
transactions

Ensuring appropriate visibility; transactions are secure, authenticated & verifiable

## Privacy

## Trust

Transactions are endorsed by relevant participants



# Blockchain Benefits



## **Saves time**

Transaction time  
from days to near  
instantaneous



## **Reduces cost**

Overheads and  
cost intermediaries



## **Reduces risk**

Tampering, fraud,  
& cyber crime



## **Increases trust**

Through shared  
processes and  
recordkeeping



# End Result

- Increases the health care reach in remote locations.
- Providing affordable and effective healthcare in rural area
- A decentralized platform connecting patient to doctors and PHCs.
- Exact number of medical beneficiaries.
- Creating health schemes and benefits for the end user and required individuals.
- A very reach data set upon which mapping , graph and other calculations can be done.



# Technology

- **Hardware**

- Raspberry Pi
- Arduino Mega 2560
- E-Health Sensor chip
- Various Sensors





# Technology

- **Software**
  - IBM Watson Cloud
  - HyperLedger Blockchain
  - Node-Red
  - PUBNUB

