1. Pick one social, economic, environmental or any significant problem that needs to be solved for India.

**Crisis in Health Care System in India should be solved by making it more affordable and accessible:**

In India, some of the best healthcare in the world is delivered through the private sector. Nine out of ten doctors in India work in the private sector. But the fact remains that for nearly 600 million rural and urban poor, quality, affordable healthcare is beyond their reach. Despite being the fourth largest economy in the world, India is near the bottom of the U.N. Human Development Index and healthcare inequities contribute greatly to India’s low standing. A recent report by the WHO highlighted the fact that nearly 70 percent of India’s population spends most of their available income on healthcare. Each year nearly 40 million Indians are thrown into poverty because of out of pocket health spending.

**Save the Children**, an NGO, estimates that at least 60% of the infant deaths are due to easily preventable causes such as pneumonia and diarrhea. This translates a horrific number of half a million infants per year whose lives could be saved if we had access to a better healthcare system.

2. Why does the problem exist (3-4 main reasons)?

* **Expensive Private Health Care System:** In India, health services especially allopathic are quite expensive. Prices of various essential drugs have gone up. Costs of diagnosis tests are also very high.
* **Low investment in public health**: The amount India spends on public health per capita every year is Rs 1,112, less than the cost of a single consultation at the country’s top private hospitals–or roughly the cost of a pizza at many hotels.
* **Inefficiency of Resource Deployment:** In India, there is one government allopathic doctor for every 10,189 people, one government hospital bed for every 2,046 people and one state-run hospital for every 90,343 people.

3. What solutions have been attempted by various stakeholders? What works and what doesn't?

**Digital Healthcare in India**: It offers EMR (Electronic Medical Record) & EHR (Electronic Health Record). It also has the facilities of setting up appointments with virtual doctors and home delivery of the medicines. That’s how Digital Health Care System offers more availability and accessibility of the resources.

**Problems in** **Digital Healthcare:** Problem is with the security.

There is always a risk of theft of medical information. Cyber security is one of the biggest dangers posed by digital healthcare.

* Data can be tampered. A change in Medical information and prescribed medicines can be dangerous for patient’s life.
* Issues with privacy of data. Sensitive health data of patient can be licked or sold to third party.

4. If you could imagine a way for science and technology to solve the problem, what would that be?

Blockchain is the best way to solve this problem. A Blockchain based digital health care system means encrypted data on distributed servers.

To store the medical data in a blocked chain based system the data needs to be stored in blocks where every block will contain hash of the previous block.

So it is very hard to tamper the data of a block as the cybercriminals have to change the data of all the previous blocks.

Any medical records stored, cannot be changed. Proper access controls should be configured to make sure that only authorized persons can access the data.

Moreover the system will be in a distributed shared system to instantly identify the malicious block and replace it with correct data.

5. How can this problem be addressed using entrepreneurial approaches?

We can build a Blockchain based Digital Health Care System/Application where medical data’s will be stored in form of immutable blocks.

Users of this system will be authorized health care centers and patients.

A unique medical ID will be assigned for each patient. All the authorized health care systems (Private/Public) can access the data.

We can also build Blockchain based crowd funding system for public health care and medical research. In that way investment in that sector will be increased.