

Citizen Health Assurance Program – A Step Ahead in India's Growth

Atul Joshi
Director
Indus Core Education Foundation
Email : induscoreeducation@gmail.com
Mobile : +91-9850836972/+91 7720019481

Sep-2021

Confidential Information

This proposal is confidential to Indus Core Education Foundation("ICEF"). This document contains information and data that ICEF considers confidential and proprietary ("Confidential Information").

Confidential Information includes, but is not limited to, the following:

- Corporate, employee and infrastructure information about ICEF
- ICEF project management and quality processes
- Customer and project experiences provided to illustrate ICEF capability

Any disclosure of Confidential Information to, or use of it by a third party, will be damaging to ICEF. Ownership of all Confidential Information, no matter in what media it resides, remains with ICEF.

Confidential Information in this document shall not be disclosed outside the buyer's proposal evaluators and shall not be duplicated, used, or disclosed – in whole or in part – for any purpose other than to evaluate this proposal without specific written permission of an authorized representative of ICEF.

Periodic Health-check up program

- Today, the Indian government spends only about 1% of its GDP on healthcare, which is among the lowest globally for any country.
- Even more important is a social reality: there just are not enough trained and qualified doctors to adequately serve the entire urban and rural populations of India even if we could provide financial incentives for them to work in rural areas.
- Our plan, therefore, is to increase the effectiveness of doctors. This can be accomplished by reducing the need for doctors in the initial screening of students, and by collecting the initial diagnostic data from the rural population.
- In many cases, diseases are not diagnosed in their initial stages nor treated. People have to travel to urban areas when they can't bear the suffering caused by the disease, increasing the load on hospitals in urban areas and ending up with serious complications that, in many cases, could have been treated at early stages



Step by step approach for health assurance

- We envisage getting the pathology diagnosis as the first level in a hierarchical system of health care facilities.
- At this primary level, the pathological report will play two equally important roles: First, diagnosis of diseases based on symptoms and simple laboratory tests, and their treatment either at the centers or through referral
- As a final step, we anticipate enhancing the diagnostic capability through video consultations wherein the citizen (through the PHC) will access a physician (and even a specialist) via a two-way video camera and screen.
- We anticipate that this technology and the required transmission rate using cellular connections will become a reality in rural India in next 2-3 years



Various beneficiary with the small initiatives

- The key beneficiaries of this project are
 - Rural population to get the healthy life and have preventive care
 - Government agencies to have the validated and accurate data to plan the schemes
 - Healthcare professional to have more planned way of supporting the population
 - The providers and pharma companies to plan the distribution and more focused way of supporting the community at affordable cost.



Technology aspect – Artificial Intelligence and ML

- The project shall use the latest technology platform such as Artificial Intelligence and Machine Learning algorithms to predict the epidemic in certain geography based on the data collected
- The AI shall provide us the living patterns, disease pattern as well as immune response to certain climate changes in the specified region.
- To reduce the manual efforts and data entry – interfaces are being developed with the diagnostic labs software so that the importing shall be expedited.
- The system to be developed shall be mobile enabled so that data can be collected from any source. The integration can be done with Government of India ambitious project – National Digital Health Mission.



Early thought process to achieve big

-
- Covid 19 pandemic has strengthened our concept of need of having the Geography based health profiling. If this information would have been available early, the pandemic could have been well controlled based on the immune response of individual.
 - The concept of **dynamic premium** by the Insurance companies can be linked to this, thus by increasing the number of beneficiaries in the same amount of premium charged by these companies.
 - Mobilization of the health care workers and planning of the Health infrastructure can be done with the prediction of Covid 19 like pandemic in future, avoiding the panic situation which has occurred in the recent pandemic

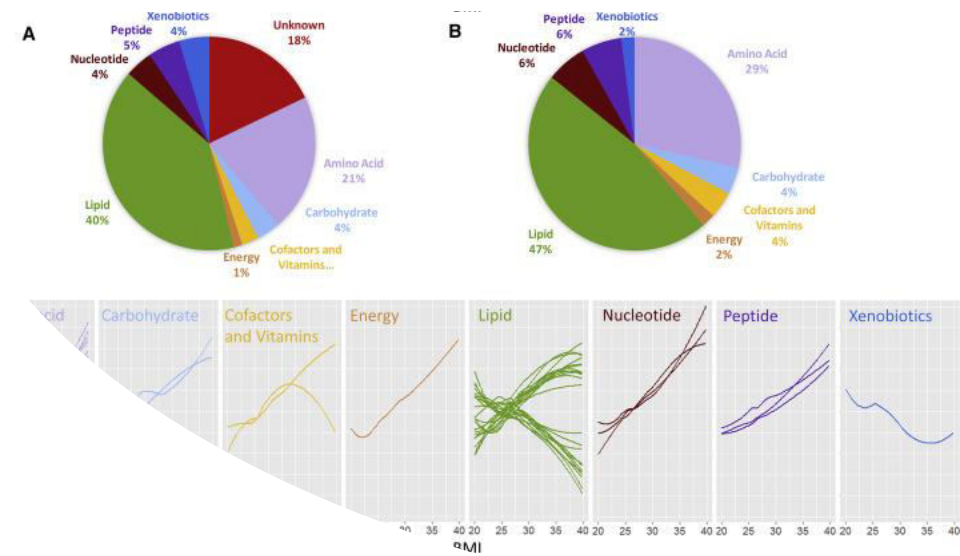


Why now?



- The timing is right. India is undergoing a tremendous transformation to open markets, and has leveraged its development on the boom in Information Technology.
- The potential for India to emerge as a modern technological giant, however, depends on its ability to close the economic and literacy gap between its rural and urban populations, manage health pandemics, and control the population. For this to happen, a long-term sustained investment in rural development, with health care and health education as the foundation stone of this initiative, is essential.
- The approach is holistic. It is designed to be sustainable and yield long-term changes in rural health care and welfare.
- Population control is expected to be a major result of this strategy

Profile Parameters covered in Health checkup



- **Thyroid Profile (3)**
 - Total Triiodothyronine [T3]
 - Total Thyroxine [T4]
 - Thyroid Stimulating Hormone [TSH]
- **Iron Deficiency Profile (3)**
 - Serum Iron
 - Total Iron Binding Capacity
 - % Transferrin Saturation

- **Lipid Profile* (8)**
 - Total Cholesterol
 - HDL Cholesterol
 - LDL Cholesterol
 - Triglycerides
 - Non - HDL Cholesterol
 - VLDL Cholesterol
 - LDL/HDL Ratio
 - TC/HDL Cholesterol Ratio

- **Diabetic Screen (2)**
 - HbA1c
 - Average Blood Glucose
- **Blood Ketone (D3HB)**
- **Fructosamine**
- **Vitamin Profile (2)**
 - Vitamin D Total
 - Vitamin B12

- **Elements 22 [Toxic and Nutrients] (22)**
- **Complete Hemogram (24)**

Budget for 1000 citizens



Description	Unit Cost	Total Cost
Pathology Test per citizen	INR 400	INR 4,00,000
Remuneration to the medical practitioner (per day)	INR 2,000	INR 20,000
Computers and Printers (Rental)	INR 30,000	INR 30,000
Medical Supplies, Stationery, etc (Consumables)	INR 25,000	INR 25,000
Logistic and Transportation	INR 25,000	INR 25,000
	Total	INR 5,00,000

Target is to conduct 100K plus test in a span of 1 year so that enough sampling is done with targeted geographies in 1 state for developing a model for AI

How to contribute

- Adopt a citizen in rural area
- Adopt a village
- Adopt a block
- Contribute to the technological development
- Carry out the health checkups



Pilot done – Detailed Case Study

Sr. Citizen health check up – Case Study

Mobile Medicare Units that take health care to the doorsteps of the neglected elderly on regular basis

Baseline Survey Findings

- 39% of the population is above the age of 55 years.
- 45.8% of this elderly population are women.
- 52.6% of these families live Below Poverty Line .
- 62.7% belong to SC/ST/OBC category and 8% belongs to minority.
- 56.4% of elders are illiterate and 72% of elder women are illiterate



Geographical Coverage

: 20 locations across operational areas the client

Beneficiary Coverage

: 1.5 lakh elderly per annum (6 lakhs/4 yrs)

Financial implication

: Rs. 16.45 Crores (4 yrs)

Launched on

: 2nd October 2019 (Gandhi Jayanti)

Sr. Citizen health check up – Case Study

- 61.2 % of the elders are not economically active, the same for elder women is alarmingly high at 88.9%.
- 30% of the elders consume tobacco, Gutkha, beedi and cigarette
- Joint pain and Hypertension, Asthma, diabetes, heart problem and ulcers.
- 4% of these elders suffer from some form of disability.

Action:

- From October,2019 to December 2020 , the MMU visited 330 times to 10 villages carrying out 17,751 treatments in total.
- Average Village visits per month: 2.2 times
- A total of 12,236 medical cases screened
- Diagnosis, treatment , Medicines and consultations were provided for the same



- **Date of Launch of Program: 2nd October 2019 (Gandhi Jayanti)**
- **Staffing:**
 - 8 staffs
 - 2 drivers
 - 2 Special Protection Officers
 - 2 Auxiliary Nursing Midwives
 - 2 Medical Consultants

Sr. Citizen health check up

Outcome of the program



Types of Disease	Cases treated
Hypertension	1854
Cataract	67
Diabetes Mellitus	1849
Depression	23
Skin	174
Osteoarthritis	1891

- In the month of October 2019 to March 2020: 5520 treatments were made for the elderly

Other similar projects proposed

Annual health check for school children

All school students have an annual health check so that any abnormality is detected early and appropriate steps can be taken to manage it.

NEED

There are half a million students attending government schools in Maharashtra. It is important to prevent the most serious health risk behaviors among children, adolescents and young adults and to develop positive health attitudes amongst them.

In addition to giving health education on various issues, identification and monitoring of critical health problems is important to improve the health of this community. Since the children are in close contact with teachers at school and there are many opportunities for parents and teachers to work together, the school can be effective in monitoring health risk factors.

SERVICES DELIVERED

- An annual health check is conducted for all the students attending the government schools so that any abnormality present is detected early, especially eye and dental problems and appropriate steps can be taken to manage them.
- If needed, the children would be referred to a hospital for diagnostic work up. A dentist would visit the clinic every year for a week and perform dental checks. Necessary interventions, such as scaling, cavity fillings and extractions would be for a nominal fee.
- Teachers will be trained for vision screening by a reputed eye hospital and will screen children at regular intervals for any vision problems. Children with vision problems will be sent to this eye hospital and if needed, glasses will be provided at subsidized rates.
- Chronic disease risk factors including tobacco use, poor nutrition, spitting, and physical inactivity would also be studied so as to be able to reduce them in school. All children would be de-wormed. The check ups would be done by the general physician and the pediatrician. Weighing scale, blood pressure instrument and medicines would be required.



TB Dots Program raises awareness on TB its symptoms

TB Dots Program raises awareness on TB, its symptoms, prevention and treatment. It helps in diagnosis, distributes medication, supplementary nutrition and ensures compliance through regular follow up of patients.

NEED

Congested, ill ventilated, overpopulated houses, unhygienic conditions, habit of spitting in public places, all contribute to increased prevalence of TB. Lack of education and awareness about the disease leads to delayed treatment with increased mortality and morbidity. One infected person can infect ten others in one year.

A major focus of this program is to create **awareness** about the disease, and to educate the community regarding the causes, spread, diagnosis, prevention and treatment of TB, in the hope that people will report symptoms early enough for timely diagnosis and treatment.

SERVICES DELIVERED

Information is disseminated at regular intervals in different locations in the rural areas including government schools. A range of media, such as pamphlets, films and street plays about TB are used for the purpose of education. Suspected patients identified through the awareness program are taken by our hospital attendant to government-run DOTS centers for diagnosis and treatment.

To ensure complete recovery, milk and nutrition supplement would be provided to the patients who cannot afford it.

Information, education and communication materials have been developed and staff has been trained to use them effectively so that they can communicate key messages for prevention, detection and treatment. The youth group in rural areas performs street plays on TB.



Awareness programs on reproductive health issues

Awareness programs on reproductive health issues coupled with a weekly gynecologists and ante natal care clinic address the reproductive health needs of the community

NEED

The level of knowledge about reproductive health, sex and sexuality is dismally low in the rural areas. The little knowledge on sex was obtained either from the peer group or through mass media. Misconceptions are common. Moreover, it is very common for the girls to be married off at an early age.

Early marriages not only increase the maternal mortality and morbidity during childbirth but also the babies born are low-birth weight babies with consequent malnutrition and increased infant mortality.

SERVICES DELIVERED

- Awareness generation on reproductive health issues, including safe sex, safe motherhood, STI/RTI, HIV/AIDS, family planning, male responsibilities and contraception. The communication strategy includes a variety of media, including sex-segregated group meetings, camps and melas, workshops and training sessions with peer educators, government health providers and local service providers.
- An ante natal care clinic is held weekly for pregnant women. Antenatal care includes the following services: antenatal check up, immunization of pregnant women, iron and folic acid supplementation, identification of high risk pregnancies and timely referral and follow up of these pregnancies. Women are counseled on safe motherhood, post natal care, care of just born, breast feeding, nutritional requirement during pregnancy, personal hygiene, safe delivery practices, importance of treatment of both partners for STI/RTI during pregnancy and the importance of going in for voluntary testing and counseling for HIV/AIDS.
- In the gynae clinic women and adolescent girls are able to access the services of a gynecologist for treatment of their medical problems and with the counselor they can discuss in total confidence their problems, clarify doubts on prevention and appropriate treatment of STIs, and when and where to go for HIV testing. Intrauterine contraceptive device insertion, oral pills and family planning options are also discussed in this clinic. Pap smear camps are held every six months for screening of genital cancers.



Student Care Program

The program includes a supplementary nutrition program for malnourished children, monthly immunization of children under 5 and biweekly pediatric clinic.

NEED

Poor socio-economic conditions of the village residents make them prone to malnutrition. Low weight mothers give birth to low weight infants.

Large number of children per family, low income and lack of knowledge about healthy eating all add to their vulnerability and to the high incidence of malnutrition which in turn makes patients prone to other diseases like tuberculosis as well

SERVICES DELIVERED

Our community workers approach mothers of malnourished student and make them aware of risks of such condition to student. Demonstrations are held in the community to train women to make low cost nutritious and tasty snacks for malnourished student.

Our community workers persuade mothers of less than three year old malnourished student to keep their student under our observation for at least three hours every day so that the child can be fed two nutritious meals and his /her growth can be monitored till they reach level of average student.

Mothers are educated in all aspects of child-care, including personal hygiene, immunization, breast feeding and weaning and nutrition. Students are immunized.

Every month, the Health officials visits the clinic to immunize children less than 5 years. A pediatrician also visits the clinic twice a week.



About Indus Core Education Foundation

About ICEF

- INDUS CORE EDUCATION FOUNDATION is a pioneer social development organization in the Western Part of India working through out Maharashtra, Madhya Pradesh, Gujrat, Andhra Pradesh, Telangana, Chhattisgarh and Jharkhand for the students and citizens
- Indus Core Education Foundation is a nonprofit organization registered in 2016 and formed as Section 8 company under the Company act 2013
- Since than concentrating on basic social and economic development issues such as education, health, empowerment, entrepreneurship development and environment. It is backed by the expert in the field of education, technology as well as behavioral sciences
- The organization was also approved for Tax exemption under Section 12A & 80G of Income Tax Act,1961 under Ministry of Finance, Govt. of India and well set to take of major program intervention in national and inter-state developmental issues

ICEF Team



ATUL JOSHI

Atul Joshi is passionate about enabling people to excel in their personal and professional lives. He founded Indus Core Education Foundation to achieve digital literacy and digital access for all and create the skilled employee force for India.



PRAMOD PATRIKAR

As part of the foundation's legal team, he primarily worked on compliance with the unique tax laws applicable to private foundations (including equivalency determinations and other matters), making and monitoring international grants, and overseeing corporate governance.



ARUNA SHETE

Having worked on women's issues for over 30 years as a grassroots worker, trainer, implementer and a leader, this unique new project initiated by her, stands as testimony to her commitment towards enabling women to live a life of dignity, freedom and upgrade the women to the new digital era



SANGEETA JOSHI

Sangeeta has 19 years of experience in handling health system research and development projects in tribal and urban areas. Having qualified with a Homeopathy Medicines, she has been working with Indus Core Education from the foundation. Her expertise includes strengthening public health systems, developing public private partnerships and implementation research.

Thank You

Contact : Atul Joshi Director – Indus Core Education Foundation
Mobile : +91 985 083 6972
Email : atul_joshi@icloud.com