PUBLIC HEALTH

CASE STUDY: OUTREACH DIEASE MANAGEMENT
SICKLE CELL, GUJARAT

HEALTHFORE
Transforming Healthcare

HealthFore – Transforming Healthcare

HealthFore Technologies Limited is a global healthcare IT solutions and advisory services company. Our B2B and B2C IT solutions help hospital chains, diagnostic centers and public health enterprises realize superior clinical outcomes.

Our patient-centric healthcare solutions focus on wellness, preventive care and condition management. Our information and health advisory services ensure prompt diagnosis and treatment of diseases. We create mass awareness to improve the quality of life through self-care.

HealthFore's IT products and services are built on leading-edge technology. Our solutions increase productivity and boost revenue for healthcare providers through process automation, interoperability and collaboration. Significantly, our customized solutions enable world-class patient care and comply with healthcare regulations, while minimizing costs.

We increase the reach of healthcare by investing in R&D. Our team of doctors, radiologists, dentists, physiotherapists, nurses, hospital administrators, pharmacists, and technicians provide insights to develop innovative solutions and streamline healthcare. Our strategic relationships with Microsoft, Oracle, IBM, HP, and Barco are the backbone of our healthcare solutions.

About Our Customer

Sickle Cell Anemia Control Society, Government of Gujarat.

Gujarat is the first State in India to incorporate Sickle cell anemia control program in the existing health services of State Government. This comprehensive program fulfills the guidelines on Sickle Cell Anemia recommended by WHO, by agenda item 11.4, A59/9, at 59th World Health Assembly. Gujarat Sickle Cell Anemia Control Society has been formed under chairmanship of Hon'ble Health Minister with Co-chairmanship of Hon'ble Tribal Development Minister and registered under society registration act 21

of 1860. The Sickle Cell Anemia Control Program was launched by the society in February 2006, in a programmatic mode aiming towards consistency and sustainability, with the aim to enhance the life expectancy and improve the quality of life of tribal population of Gujarat. About 89 lacs tribal population of 12 districts are mainly targeted for this Program. In 2012 Government of Gujarat extended the program to all 12 tribal districts of Gujarat. The Government of Gujarat engaged corporate organizations and NGOs to work in sickle cell screening outreach program and complete the entire screening in 3 years.

Goals

- No Sickle Cell Disease childbirth by 2020.
- Prevention of death from Sickle Cell Crisis.
- To improve health status and quality of life of Sickle Cell Anemia patients.

Sickle Cell Screening Program

Sickle-cell anemia (also known as sickle-cell disorder or sickle-cell disease) is a genetic blood disorder, where the blood cells contain abnormal hemoglobin (HbS) called sickle hemoglobin.

Problem Statement

India does not have any comprehensive national program to address the problem of sickle-cell disorder. However, in 2006 the Department of Health and Family Welfare, Government of Gujarat initiated the Sickle Cell Anemia Control program in five districts of the state. From 2006 till March 2011, out of 89, 12,723 tribal live only a total of 13, 96, 904 lives were screened. 20% of Sickle disease children die by the age of two. As per one of the ICMR survey 30% of disease children among the tribal community die before they reach adulthood. Even if they survive, life time risk of disease remains same. Early diagnosis can save the life and allow better management of the disease.

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Major Challenges

- Widely scattered population in remote rural areas.
- Low level of education and awareness
- No treatment for sickle cell disease patients
- Lack of reliable data about existing disease and trait patients
- Lack of government policy in absence of supporting data
- Resistance from tribal to testing due to unawareness
- Unavailability of skilled clinical laboratory resources
- Lack of sufficient infrastructure to perform HPLC testing to confirm disease characteristic

Our Solution

HealthFore's goal was to screen the entire remaining unscreened tribal population of 2 districts viz. Narmada and Tapi (awarded by Commissionerate of Health, Medical Services & Medical Education, Government of Gujarat) in a planned approach.

Districts were divided in to Tallukas and each talluka was further divided in to Primary Health Centre (PHC) for micro planning. A pre –launch meeting was planned at the Talluka level to educate and create awareness among ASHA worker and solicit cooperation and coordination from all stake holders, Chief District Health Officer (CDHO), District Epidemiology Medical officer (EMO), Block Health officer (BHO) and PHC-Medical officer.

Reduced cost by 81% and cut the duration by 50%.

Qualified skilled man power was recruited at each Taluka level comprising of 1 lab technician, 2 paramedics and 1 Data entry operator (DEO) in each team.

Teams were trained on field processes, clinical processes and quality control processes.

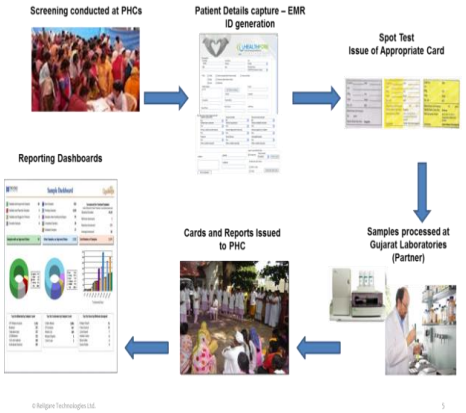
According to the micro plan shared with government officials, project coordinator informs the ASHA of the concerned village 48 hours in advance of the planned visit. ICE activities were carried out prior to the testing day at each village to inform patient about disease and benefits to screening Team reaches the village and ASHA mobilizes the tribal patients to the testing site.. Tests were conducted and laminated cards were issued to the negative patients. An additional blood samples was collected for positive patients and was sent to the HPLC Laboratory in strictly maintained cold chain. These samples were tested to assess the disease or trait characteristic of the disease. The laminated yellow cards were issued to the disease patients while laminated yellow- white cards were issued to the trait patients.

IT enabled effective inventory control, data movement, data storage and reporting to the Government.

IT played a major role in smoothly executing the project. The entire data collected from the field was entered in to a web based application and a unique ID number was generated for each screened patient. The database of all screened patient data was made available to the government officials.

Our IT driven solutions and professional program management helped in efficient inventory management, data collection from field, 3 layers of data validation before the data was entered in an online application

HealthFore Sickle Cell Screening Solution



Benefits

- Enabled government to screen the remaining population at 81% lesser cost.
- Cut the total duration in to half by an efficient project management
- Mission control mode to screed the entire remaining population in a very short time
- Adherence to the government defined guidelines.
- No duplication of screened patients
- Identification cards with unique ID number to each screened patient with disease status
- Creation of a reliable data source of sickle cell status in district.

The Patient was undergoing treatment as part of her Antenatal care and during the course of pregnancy her Hemoglobin drastically reduced to 6.5 gm%. During field testing at Surjipure village patient was found to be Positive for sickle cell. A HPLC sample was sent to HPLC laboratory for further analysis. The next day the HPLC test chromatograph was provided to the respective Primary Health Center Medical officer (PHC-MO). The HPLC report provided by our laboratory proved to be very helpful to the doctors at PHC and it helped them change the course of treatment and in turn saved life of the mother and child both.

Patient Name: Bheel Namrata Bain (Name changed)
Village: Surjipura Age: 22 years