

# ANNUAL REPORT 2013-14



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# ANNUAL REPORT 2013-14

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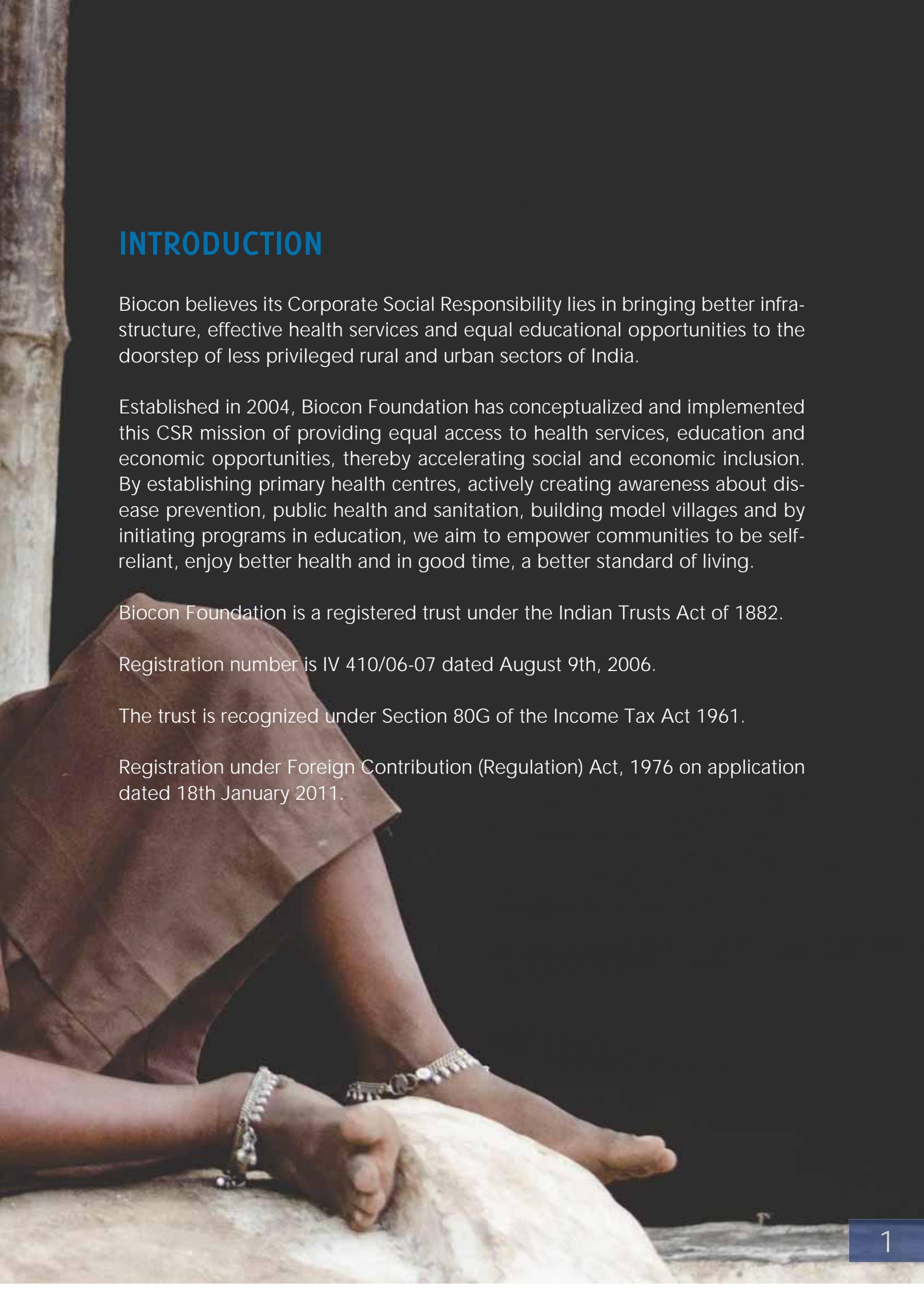
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A woman wearing a brown sari is sitting on a large, light-colored rock. She is wearing several silver bangles on her wrists. The background is dark, and a wooden post is visible on the left side of the frame.

## INTRODUCTION

Biocon believes its Corporate Social Responsibility lies in bringing better infrastructure, effective health services and equal educational opportunities to the doorstep of less privileged rural and urban sectors of India.

Established in 2004, Biocon Foundation has conceptualized and implemented this CSR mission of providing equal access to health services, education and economic opportunities, thereby accelerating social and economic inclusion. By establishing primary health centres, actively creating awareness about disease prevention, public health and sanitation, building model villages and by initiating programs in education, we aim to empower communities to be self-reliant, enjoy better health and in good time, a better standard of living.

Biocon Foundation is a registered trust under the Indian Trusts Act of 1882.

Registration number is IV 410/06-07 dated August 9th, 2006.

The trust is recognized under Section 80G of the Income Tax Act 1961.

Registration under Foreign Contribution (Regulation) Act, 1976 on application dated 18th January 2011.

# CSR POLICY

## CORPORATE SOCIAL RESPONSIBILITY AT BIOCON

*“All the wealth in the world cannot help one little Indian village if the people are not taught to help themselves”  
- Swami Vivekananda*

Biocon’s Corporate Social Responsibility initiatives, started in 2004, are based on the principle of making enduring impact through programs that promote social and economic inclusion.

At Biocon, CSR has been an integral part of our business since inception. The Company is committed to innovation, affordability and access to healthcare. In line with this commitment and as a socially responsible organization, Biocon has, over the last 10 years, invested significantly in various CSR programs aimed at making a difference to the lives of marginalized communities.

### Our CSR Vision

- To promote social and economic inclusion by ensuring that marginalized communities have equal access to healthcare services, educational opportunities, and proper civic infrastructure.
- To create a globally competitive Biotech ecosystem in India through skill development.
- To bridge the gap of gender disparity in education, healthcare and employment.

### Our Philosophy

As a socially responsible corporate, Biocon acknowledges its responsibility towards the environment, its consumers, employees, and other stakeholders.

Biocon aims to fund pilot projects in the areas of healthcare and education to demonstrate their viability before being scaled up by the government at the state level. Biocon believes that in order to make meaningful impact, we need to partner with the government and like-minded organizations. Accordingly, we are engaged in several public-private partnership (PPP) projects aimed at effectively and transparently implementing welfare schemes for marginalized communities.

### Our CSR Approach

Affordable.... Accessible..... Innovative... Inclusive.....Transparent... Technology driven...Sustainable

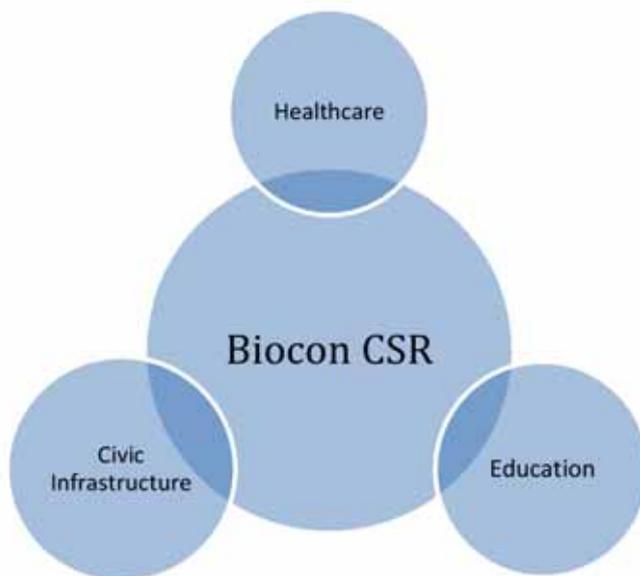
# CSR POLICY

## Our CSR Program

Biocon's CSR activities are/will be implemented through:

- Biocon Foundation - develops and implements healthcare, educational, and infrastructure projects for marginalized sections of society;
- Biocon Academy – aims to address the skill deficit in the Biotechnology sector, by developing high-end talent through advanced learning and industrial training to make them employable
- External Partners – with track records in the CSR area.

## CSR Focus Areas



## Biocon Foundation

Biocon Foundation's initiatives are primarily focused on healthcare, primary education and civic infrastructure. All projects are developed and implemented by Biocon Foundation based on need assessment through discussions with local communities, and government departments. Project appraisals are done periodically by combining community feedback with evaluation metrics developed by the Foundation. These metrics include patient footfall, health indicators, feedback from teachers, community satisfaction etc.

# CSR POLICY

## Health Care

The Foundation has developed an integrated and holistic healthcare delivery service, which seeks to address critical gaps in the delivery of healthcare in rural India. Our efforts are targeted at enabling last mile reach of preventive and primary health services in rural areas.

Our healthcare programs are delivered at three levels:

- **Preventive Healthcare** – through education to prevent onset of infectious diseases; early detection of chronic diseases through regular community based screening; and facilitating timely help and treatment to improve maternal and child health.
- **Primary Healthcare** – through the Arogya Raksha Yojana primary healthcare clinics and through health camps, which provide a single point see-and-treat model of care aimed at reducing out-of-pocket expenses and time spent away from work.
- **Tertiary Care** – through the Arogya Raksha Yojana Health Micro Insurance Scheme, which provides cashless cover for catastrophic illness and surgeries through a network of approved hospitals.

The Foundation believes that the use of technology can make healthcare delivery in rural areas more efficient. It has used innovative technologies to enable several initiatives in the sphere of preventive healthcare and is also engaging with state governments to implement a novel e-Health program to deliver Universal Health Care through government Primary Health Care Centers. Biocon intends to replicate this PPP model in other parts of India to make a meaningful impact in healthcare delivery.

## Education and Training

Biocon Foundation believes in fulfilling the 'right to education' by delivering quality education in innovative ways. Education projects were developed to address the gaps in critical learning areas that were identified in consultation with community leaders and school teachers. The Foundation aims to empower and include underserved young people in rural areas by providing them access to experiential learning in basic maths, computer skills and language skills.

### Advanced Training through Biocon Academy

The Academy aims to impart advanced training to young graduates in order to provide them with the necessary skills required for gainful employment in the Biopharma Sector. Through this initiative the company will train up to 100 graduates in the first year (2014), and will help them to find placement at biotech enterprises. Biocon will provide 75% of the total program fee as scholarship to all selected candidates.

# CSR POLICY

## Civic Infrastructure

India is facing a big challenge in the area of infrastructure development, especially in rural areas. As a socially responsible organization, we are working with the government to build townships, schools, sanitation and water supply that can fulfill the basic needs of rural communities.

Biocon Foundation has:

- Adopted and rebuilt a township in North Karnataka – 400 houses and the support infrastructure including a school, safe drinking water, health centre, and community hall have been built so far.
- Provided access to sustainable and clean sanitation facilities to rural communities – 1000 household toilets and several community toilets have been built so far.
- Provided clean drinking water and set up rain water harvesting system in villages to provide a sustainable solution for water scarcity.
- Provided solar lights for houses in remote areas to reduce dependency on unreliable power grid.

## Governance

**CSR Committee:** The CSR Committee is responsible for oversight of all CSR activities from start to finish. It shall meet at least twice a year to ensure Biocon delivers on its CSR goals.

**Identification of programs for CSR:** Programs to be supported via CSR will be selected by the CSR committee through a transparent process and the selected programs will meet the regulatory requirements.

**Budgeting and spend:** For each financial year, the minimum amount available for CSR spending will be defined in accordance with the applicable provisions of the statute. Any surplus arising out of CSR projects shall not form part of business profit of the company.

As per the statute, any unspent budget shall be reported in the Annual Report.

**Reporting:** CSR initiatives of the Company will be reported in the Annual Report

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1.



Healthcare

## UNIVERSAL HEALTHCARE THROUGH E-HEALTH

“Ensuring equitable access for all Indian citizens, to affordable, accountable, appropriate health services of assured quality - including promotive, preventive, curative, and rehabilitative health”.<sup>1</sup> Universal Healthcare has to have a very strong focus on preventive and primary healthcare, including general health awareness and health promotion; antenatal care, food security, prevention and early detection of chronic diseases – we believe that these aspects of healthcare should account for at least 70% of all healthcare expenditure.

Effective delivery of Universal Healthcare hinges on systematic, evidence

<sup>1</sup> High Level Expert Group Report on Universal Health Coverage for India – Planning Commission of India, November 2011

based treatment for every ailment of every citizen. E-Health using Information technology to manage patient care can be used very effectively to deliver health and collect data that is critical to delivering evidence based healthcare programs. Biocon Foundation has developed an Electronic Medical Records system to improve management of patient care. Biocon Foundation also uses a number of mHealth programs to deliver screening and health education, and to collect data that helps develop evidence based health interventions. The foundation is now entering into a public private partnership with state governments to further develop the E-Health services and implement these in Primary Health Centres in the country.



Patients at the Diabetic camp, ARY, Huskur

## MANAGING CHRONIC CONDITIONS- A NEW PERSPECTIVE

In recent years India has experienced significant economic growth as well as the growth of a number of chronic ailments like cardiovascular diseases, cancers, diabetes, anaemia and malnutrition. WHO has found:

- By 2020, chronic diseases in India, are expected to claim 7.63 million lives every year. Further, a Price Waterhouse report predicts that the proportion of death from long term maladies will rise from 53% in 2005 to nearly 67% in 2020.
- Cardiovascular Diseases (CVD), respiratory diseases, cancer and diabetes today account for 53% of early deaths in India – more than those caused by infectious diseases. In addition, high blood pressure causes 4.9 million deaths, and 4.4 million deaths are caused by obesity, poor nutrition and other causes.<sup>1</sup>

India faces a looming health crisis. Recognizing the criticality of this, Biocon Foundation has consciously increased focus on Prevention and Management of Chronic Conditions including:

- Cancer
- Diabetes Mellitus & Hypertension
- Malnutrition

<sup>1</sup> Non-Communicable Disease: The Battle Comes to India – Ratna Devi



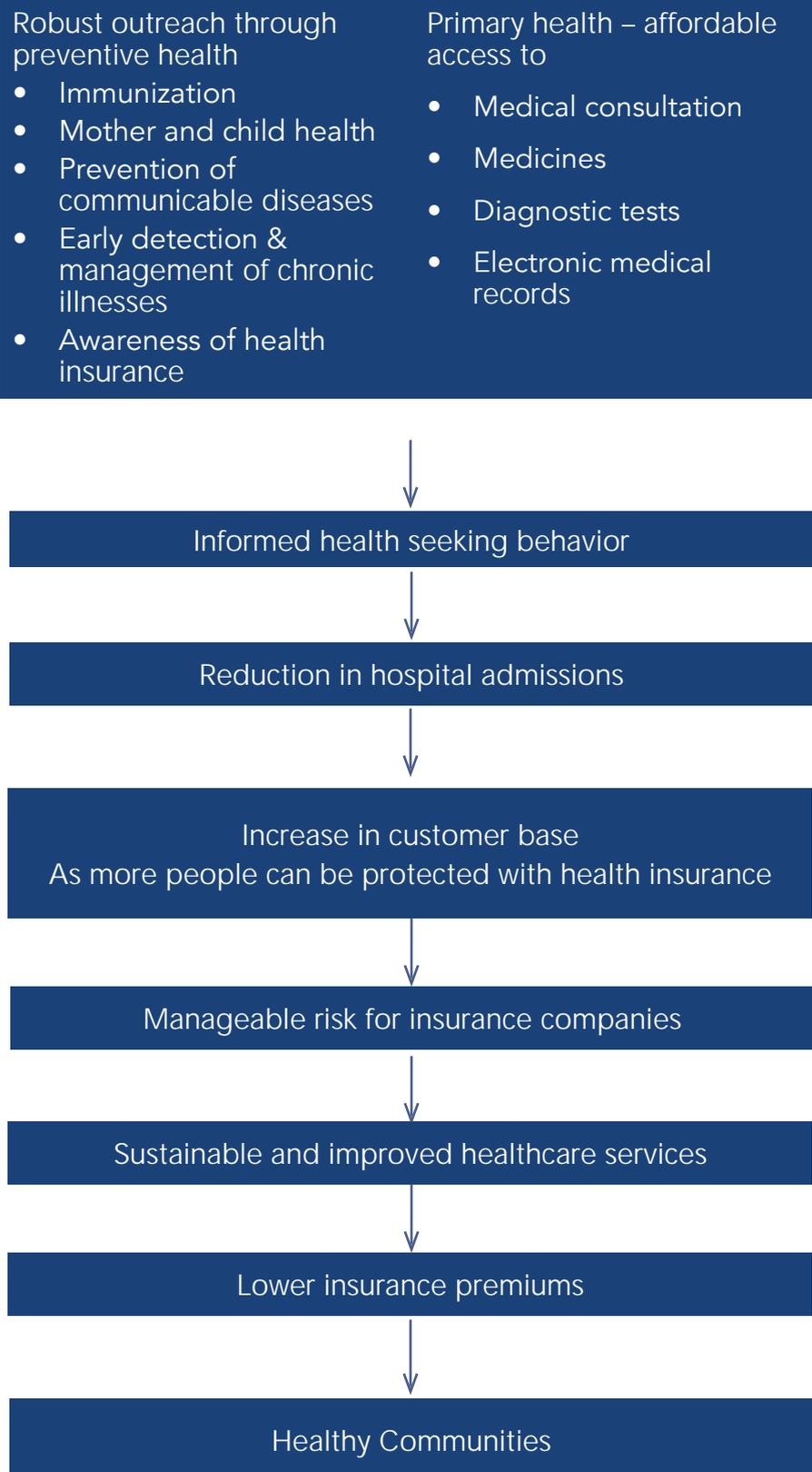
Chronic disease management at ARY, Kaladgi

- Anaemia

We continue to provide basic primary healthcare services through the ARY Clinics and network of health workers, and secondary and tertiary care through our network of partner hospitals. The long term goal is to create a sustainable health ecosystem, through our Integrated Healthcare Initiative.

The Annual report highlights our work in Managing Chronic Conditions within the framework of our existing infrastructure and using specialists and tertiary partners where possible.

## A SUSTAINABLE HEALTH ECOSYSTEM



Primary care and preventive care for infectious diseases, mother and child health continue at all clinics. Patient data is captured and stored in the ARY Clinic Management System, this helps ensure the continuum of care for all patients.

### **MOBILE HEALTH (mHEALTH)**

Mobile Health – the provision of health related services through mobile communication devices has provided immense scope for innovation and better coverage. Biocon Foundation, uses low cost mHealth technologies to ensure that healthcare reaches the last mile in remote and underserved communities, in a very cost effective manner.

Key deliverers of mHealth are Community Health Workers. They are literate women from the local communities with or without experience in healthcare. Project specific training is given to them.

Tool: Smart phones with the Poi Mapper app

#### **mHealth technology is used for:**

##### **Data collection - Baseline survey**

Using PoiMapper, the baseline survey questionnaire is loaded on basic smart phones. Once the survey is complete, a program is developed based on the data collected and this is implemented in our field practice areas.

### **Anganwadi Survey – Mapping and Assessing**

Mapping of the Anganwadis is essential to develop a strategy to monitor undernourished children in Badami Taluk in Bagalkot. Severely malnourished children are mapped and tracked using the mobile phone app.

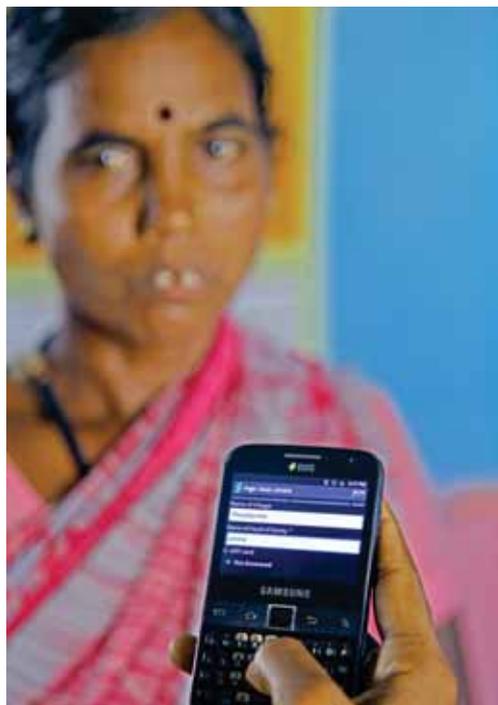
### **Oral Cancer Screening and Remote Diagnosis**

The mobile phone based oral cancer screening programme has the potential to reach the last mile, thus decreasing the incidence and severity of oral cancer, and decreasing the cost burden on the healthcare machinery. Population or community based screening is cost effective when compared to hospital based screening. The data collected during the screening process is uploaded to a server, and is reviewed by a doctor even from a remote location. The prescribed treatment is then sent back to the health workers phone and she conveys this to the patient.

## BASELINE SURVEY

### Information Collected

- Demographic details
- Basic Health Details (Diseases / Immunization / Family Planning)
- Vital Events (Births / Deaths / Migrations)
- Antenatal information
- Utilization of Health Services/ Income / Medical Expenses
- Socio-economic data (housing / sanitation / water) and scored using Kuppuswamy socio-economic classification assigned to each family



Data collection with mobile phone

### POPULATION SURVEYED IN 2013 – 2014 5 – 10 KMS RADIUS AROUND ARY CLINICS

Clinic	Health Workers	Volunteers	Villages	Households	Population
Huskur	3	74	8	1035	4287
Hennagara	3	14	8	2964	11674
Austin Town	2	18	10	1724	6285
K R Puram	2	8	13	2690	10431
Kalkunte	3	8	7	1966	7758
Chikballapur	3	11	15	3245	12741
Mandya	4	9	7	2918	8761
Kaladgi	2	22	1	2525	10680
Mangalgudda	3	0	1	398	2217
<b>TOTAL</b>	<b>25</b>	<b>164</b>	<b>70</b>	<b>19465</b>	<b>74834</b>

## KEY HEALTH DATA IN ARY CLINIC PRACTICE AREAS

Clinic	Total Population	Population > 16 years	Tobacco + Alcohol	%	DM + HT	%
Huskur	4287	3301	854	25.87	207	6.27
Hennagara	11674	8545	1064	12.45	685	8.0
Austin town	6285	4621	613	13.26	650	14.06
K R Puram	12741	9972	4644	46.57	512	5.13
Kalkunte	7758	5872	1103	18.78	407	6.93
Chikballapur	10431	7663	3706	48.36	1188	15.50
Mandya	8761	6673	985	14.76	694	10.40
Kaladgi	10680	7776	1237	15.90	495	6.36
Mangalgudda	2217	1493	622	41.66	18	1.2
<b>TOTAL</b>	<b>74834</b>	<b>55916</b>	<b>14828</b>	<b>26.51</b>	<b>4856</b>	<b>8.68</b>



Health worker counselling people in the community, Austin Town

## EARLY DETECTION & PREVENTION OF CERVICAL CANCER

WHO data in 2011, revealed that 74,000 women in India died of Cervical cancer even though it is completely preventable. 99% of cervical cancer cases are linked to infection with HPV.

A cervical cancer prevention and control program requires three key service delivery components that must be linked together: community information and education, screening services, and diagnostic and/or treatment services.

Biocon Foundation collaborates with Tertiary Cancer Centers to incorporate a cervical cancer screening and prevention program into its current preventive and primary healthcare

model through our network of 9 clinics in Karnataka. Our first camp was conducted in May 2013.

### Screening Module:

1. Health worker and Staff training
2. Eligibility criteria for woman to be screened - Women above 21 years, sexually active for more than 3 years. Exceptions to this rule - HIV positive women; pregnant or menstruating women and women who have undergone hysterectomy.
3. Health workers use the reproductive health module to create awareness in the community.
4. Specialist from the tertiary center visits each clinic once a month and screens 20 pre-registered women

Clinic	Field practice area radius	Target group (women above 16 years)**	Tertiary partner
Huskur	5 Km	1627	Mazumdar Shaw Medical Centre
Hennagara	9 Km	4113	Mazumdar Shaw Medical Centre
Austin town	5Km	2569	St John's Hospital
Kalkunte	7 Km	2843	St John's Hospital
KR Puram	6 Km	3781	Dr Smitha Binod and Mazumdar Shaw Medical Centre
<b>TOTAL</b>		<b>14933</b>	

per session. She does a systemic examination including a pelvic examination (per vagina and per speculum) and performs a Clinical Breast Examination to screen for Breast cancer.

5. Screening method: Pelvic examination and Pap smear.
6. Patients found to have Candidiasis or Cervicitis/vaginitis are given appropriate medication.
7. Pathologists at the Mazumdar Shaw Medical Centre and St John's Hospital both in Bangalore, report the slides for us at a discounted rate.
8. Normal Cytology and normal pelvic examination - Patients asked to repeat the Pap smear after 5yrs. Inflammatory smear - Patient treated with appropriate medication and asked to come for follow up pelvic examination. Pap smear repeated after 6mths. Abnormal cytology/ unhealthy cervix - Patient requires further investigation
9. Further investigation are done at specially subsidized rates at the Tertiary centers, this includes Colposcopy, Biopsy, LEEP, Cryotherapy.

## Limitations & Challenges

- Our Tertiary Care partners decide on the screening method to be used based on the expertise available.
- The camps are based on pre-registration format.
- Word of mouth is an important tool to spread awareness of these clinics.
- Women with problems are encouraged to visit the clinic for a follow up.
- Health workers were reluctant to start the reproductive health education, as they were uncomfortable talking about the topic. The initial workshops were therefore held by staff from the head office in the presence of health workers. This is a limiting factor as the success of the workshops



Cervical cancer awareness in the community, Kalkunte village

	Number screened	Colposcopy	Biopsy	HPV DNA	Pre-cancer	Surgery	Cancer
Hennagara	166	6	0	1	0	0	0
Huskur	163	9	1	2	1	1	0
Group-D, Biocon	51	3	0	3	0	0	0
Austin town	107	1	2	-	1	(Cone Biopsy) 1	0
Kalkunte	71	2	2	-	1	1	2
K R Puram	82	1	1	0	1	0	0
<b>TOTAL</b>	<b>640</b>	<b>22</b>	<b>6</b>	<b>6</b>	<b>4</b>	<b>2</b>	<b>2</b>



Cervical Cancer awareness session at the community , Hennagara

depends on the confidence of the health workers. We have overcome this challenge with motivational training and guided workshops.

- Motivating patients for further investigation and treatment if the smear is positive:

The primary reasons for attrition are financial burden, fear of hospitalization and the stigma of being diagnosed with cancer. Frequent home visits are required to convince the patient. In most cases we have found involving the family is beneficial.

### Case Studies

1. Shanti (name changed), 35years, attended the screening facility in one of the urban slums. She is the sole bread winner of the family with 3 dependents (two daughters who are still studying and an alcoholic husband). When Shanti's Pap smear report was abnormal, she was keen on follow up but was scared due to the absence of family support. The Biocon Foundation community health worker accompanied her and her daughter to the hospital for follow up investigations. On further investigation she was found to have cervical intraepithelial neoplasia, a pre-cancerous lesion. She underwent a short procedure to remove the diseased tissue. She is very happy that her condition was diagnosed before it progressed to full blown

cancer, thus reducing the economic burden on her significantly. Shanti is back to work, to ensure that her daughters have a secure and happy future.

2. Chinamma (name changed), 45 years attended a rural screening facility. When she was informed of her abnormal pap report, she postponed follow up as she did not want to trouble her family. Biocon Foundation counselled her and sought permission to discuss the issue with her family. Chinamma's family was very supportive and took full responsibility of her treatment. She has had her surgery and is looking forward to a healthy life.

These are examples of ladies who had significant lesions, but the program has also benefited women who have ignored common reproductive tract infections, because they were uncomfortable talking about it, tolerating the pain and discomfort associated with these infections. The education and the easy accessibility to the specialist has reiterated the importance of a woman and her health.

## EARLY DETECTION & PREVENTION OF ORAL CANCER

Globally, India accounts for the highest number of Oral Cancer cases, with the government recording a staggering 80,000 cases every year across the country. In addition 30% of all cancer deaths in India are caused by Oral Cancer.

Oral cancer is caused by chewing tobacco and arecanut which are common practices in rural India, than smoking. Though oral cancer is completely preventable, delays in

presentation and diagnosis, result in low treatment outcomes and higher costs to patients.

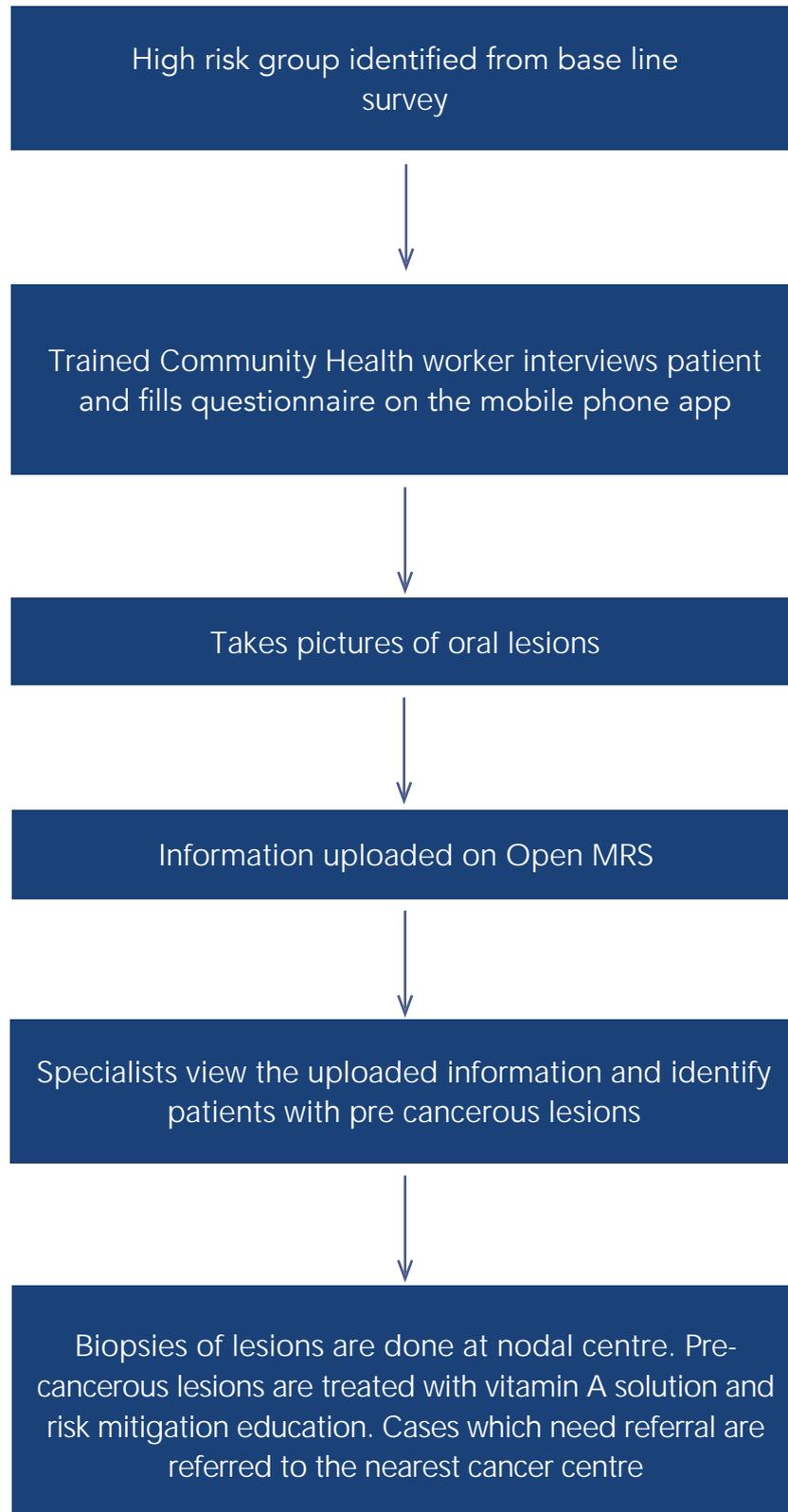
Reasons for delay in diagnosis and treatment especially in rural areas are:

- Lack of trained specialists
- Inadequate diagnostic services
- Poor awareness
- Economic and social barriers to seek help
- Poor infrastructure and connectivity



Role play conducted on "No Tobacco day" to address causes of Oral Cancer

## WORK FLOW-ORAL CANCER SCREENING



## ORAL CANCER SCREENING 2013 - 2014 COMMUNITY SCREENING

Oral Cancer screening program for the year 2013 -14, was completed in Hennagara, Huskur and Kalkunte. Work place screening was completed in Skanda Foundation, British Burman Trading Centre (BBTC), Coorg in association with Coorg Institute of Dental Sciences & Research and on Biocon campuses. Opportunistic screening was done at a community dental camp in Poshetahalli.

Details	Total population above 16 years	High risk population	Population screened	Premalignant lesions	Biopsies
Huskur	3301	854	781	41	0
Hennagara	8545	1064	964	111	24
Kalkunte	5872	1103	864	101	0
<b>TOTAL</b>	<b>17718</b>	<b>3021</b>	<b>2609</b>	<b>253</b>	<b>24</b>

### GROUP SCREENING

Details	High risk population	Population screened	Premalignant lesions	Biopsies
Skanda	300	104	71	71
Poshetahalli	611	611	36	1
Virajpet	26	26	1	0
BBTC	700	318	38	3
Kalkunte	117	117	1	0
Biocon	260	260	44	0
<b>TOTAL</b>	<b>2014</b>	<b>1436</b>	<b>191</b>	<b>75</b>

In 2013-14, almost 4,000 high risk patients were screened by our health workers for oral lesions. Availability of people and logistic difficulties proved to be challenging for our community health workers, thus hindering the pace of the program. Group screening, done in a work place or other group setting has been a faster and more reliable way to access people who are at risk of developing oral lesions.

### Tobacco Cessation Counselling

Tobacco Cessation Counselling is an important step towards risk mitigation of Oral Cancer. Our first TCC workshop was conducted on 12th February 2014, at Narayana Health by Dr Diwakar Goutham N, Head Department of Psychiatry, Narayana Health, Mazumdar Shaw Medical Centre and Dr Sojan Antony, Psychiatric Social Worker Narayan Health

### Research

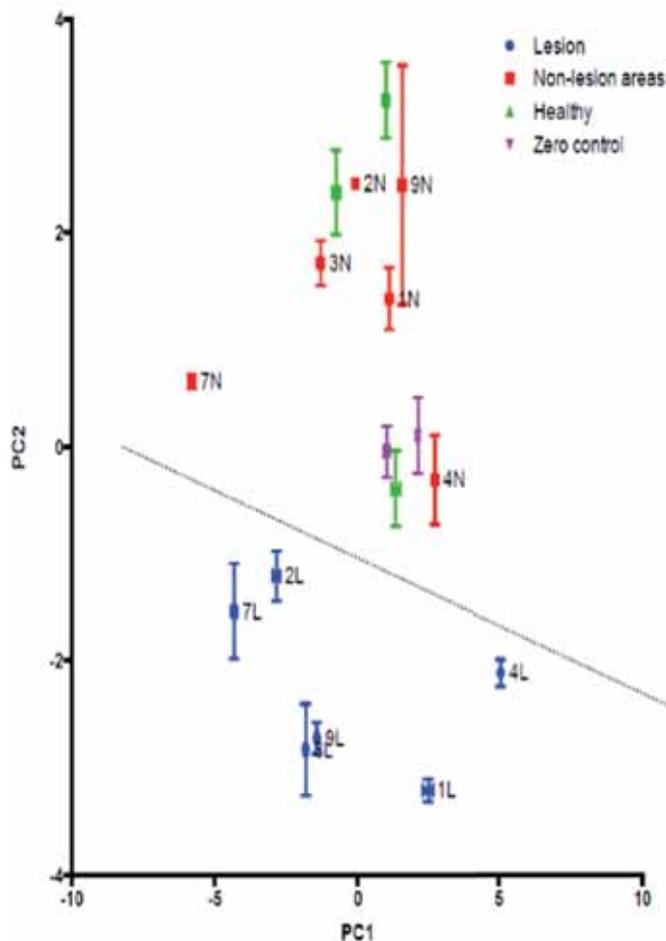
A research study on Early Prevention of Cancer (EPOC), was initiated this year, to identify salivary oral cancer biomarkers. Such an intervention may reduce the number of patients who

require biopsies and control attrition. Biopsy is an essential but invasive investigation for the diagnosis of lesions. Compliance rates for biopsies has been very poor.

This research study is being done in association with University Of Turku, Finland & Axxonet Technologies, Bangalore. In Phase 1 - saliva samples were collected from normal individuals, tobacco users with lesions, tobacco users without lesions and from cancer patients. From the salivary samples we were successful in stratifying the samples into specified groups. Results were encouraging, and the University of Turku decided to undertake a randomised clinical trial.



Vitamin A solution dispensed to the individual with oral lesions



### LIQUID FINGER PRINTING OF SALIVARY SAMPLES

The graph shows separation of the group which has lesion from the non-lesion and control group.

Blue - people who consume tobacco and have lesions

Red- people who consume tobacco but do not have lesions

Green - people with healthy oral cavity who do not consume tobacco in any form

The blue color coding below the tangent depicts the group with lesions which can turn malignant.

### Case Study

Maya (name changed), a homemaker from a very supportive middle income family was addicted to smokeless tobacco. During the Oral cancer screening campaign of Biocon Foundation, it was found that she had very restricted mouth opening, due to several mouth lesions. Our health workers counselled her about the ill effects of tobacco and encouraged her to give up the bad habit. A personalised approach to treatment was worked out for her. She was referred to NIMHANS for deaddiction. After a rigorous two month schedule, she is on the path to recovery. She has given up chewing tobacco and is on a follow up plan for her oral lesion. Our health workers are monitoring closely for any remission and are committed to provide full support.

### AWARDS AND NOMINATIONS

- Social Innovation Award 2014 for Oral Cancer Screening at the World CSR Congress
- Finalist NASSCOM Social Innovation Honors, 2014
- Finalist Namma Bengaluru Awards, 2013 for Corporate Social Responsibility

## DIABETES MELITUS – HYPERTENSION - DYSLIPIDEMIA

Biocon Foundation believes that comprehensive and adequate management of chronic diseases can reduce the healthcare burden in underserved communities.

### Work Plan:

- Standardize Chronic Disease Care in the ARY clinic
- Regular follow up of patients; study the impact of standardized care at the end of one year by assessment of complication rates; control of parameters and compliance rates.
- Fortification of services with periodic consultations by specialists at our clinics
- Capacity building of ARY doctors-series of workshops to help the doctors improve their clinical skills

### Mentor Model:

ARY doctors share their case files via email/EMR with specialist mentors who guide them with optimal management based on resources available.

### Specialist Visit:

Complex cases are pre-registered for the monthly specialist clinic.

### Diabetes Management Files:

These files are given to each patient to help them understand and manage Diabetes better. These files contain health education literature, checklists and separators.

### Progress:

#### Capacity Building of Medical Officers

The Primary care physicians are the first and often the only point of contact for health related issues in rural areas. It therefore becomes imperative that the physician has a comprehensive understanding of the disease enabling him to manage the disease with the limited resources available in his field practice area.

Dr. Prasanna Kumar and Dr. Sanjay Reddy, Bangalore Diabetes Hospital conducted a diabetes education workshop for the ARY doctors. This continuing medical education will raise the standard of treatment by ARY doctors.



*Fasting blood sugar test taken prior to speciality clinic*

Clinic	Patients seen at specialist clinic (2013-14)
K R Puram	591
Kalkunte	1232
Austin Town	446
Huskur	290
Hennagara	62
Kaladgi	246
<b>TOTAL</b>	<b>2867</b>

### Specialist Clinics

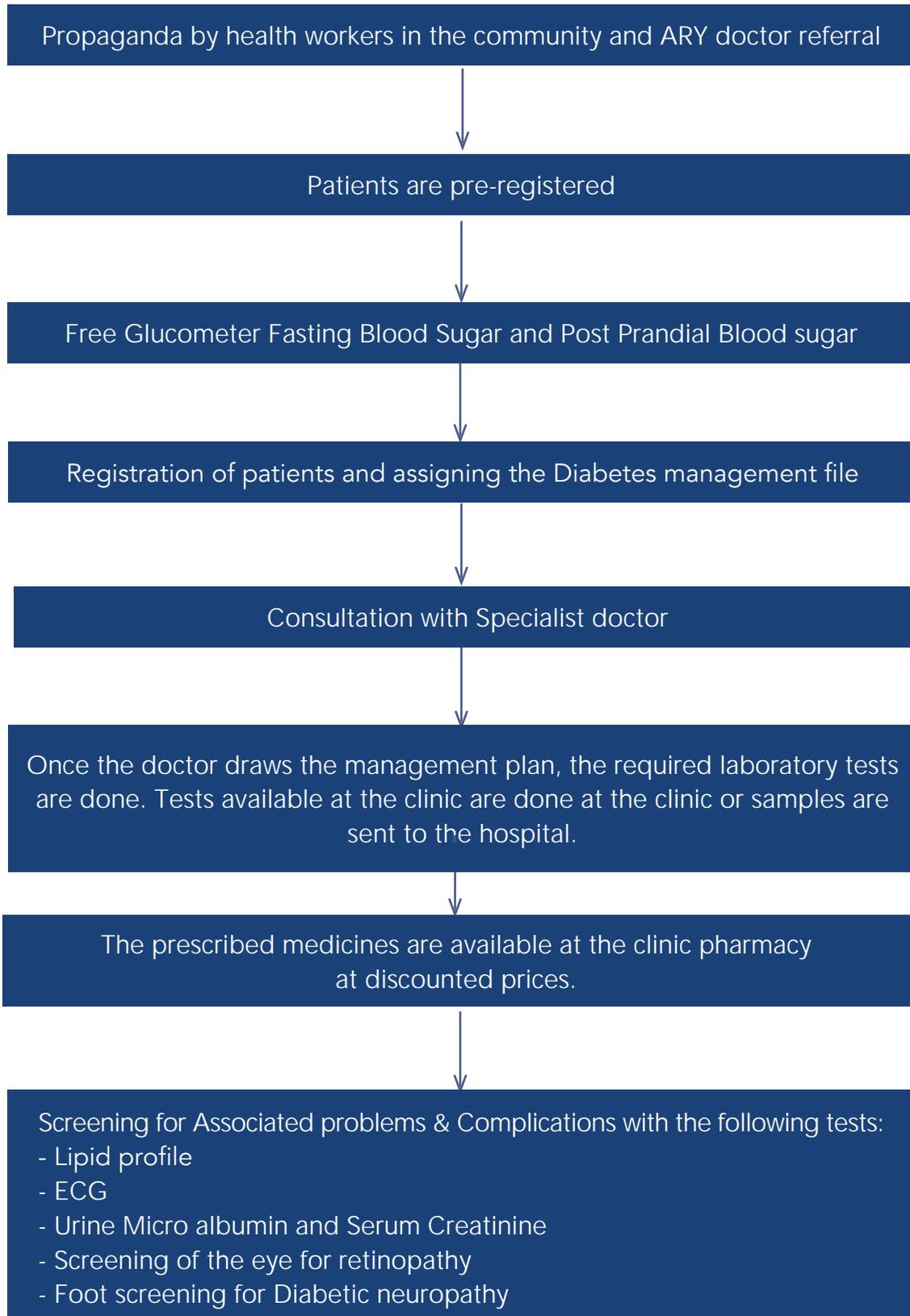
The objective of these clinics is to ensure that protocol based comprehensive disease management reaches the last mile. These clinics ensure that opportunities for specialized follow up and complication screening reaches the last mile.

Our specialist clinics have seen a foot-fall of 2867 since their inception in July 2013.



ARY Clinic Location	Specialist partner	Frequency Specialist Clinic
Kaladgi	Tulasigirish Hospital, Bagalkot	Monthly
Hennagara	Narayana Health, Bangalore	Monthly
K R Puram	Bangalore Diabetes Hospital JIVAS	Monthly
Kalkunte	Dr Ramesh, Bangalore	Monthly
Huskur and Austin Town	JIVAS, Bangalore	Monthly

## WORK FLOW-DIABETES SPECIALIST CLINICS



## MANAGEMENT OF MALNUTRITION (MOM)

Childhood malnutrition, a major public health issue in India, is also seen as a chronic health challenge especially among poorer, illiterate communities. Fifty percent of all childhood deaths are attributed to Malnutrition. Biocon Foundation and the Government of Bagalkote, have a common vision – to eradicate child malnutrition in Badami Taluk. We hope to build a strong workable model on the ground, which can be replicated across the state and the country. Our primary focus in this project is:



Weight is a determinant to understand nutritional status of a child

- Food security of the under 5 child
- Regular health checkups and timely medical interventions when needed
- Educating families about the importance of good and adequate nutrition

Each Anganwadi is tagged to a PHC to ensure optimal care.

### NAME OF THE HEALTH FACILITY AND NUMBER OF ANGANWADIS UNDER ITS CARE

Health Facility	Number of Anganwadis
Badami Taluk Hospital	27
Belur PHC	42
Nandhikeshwar PHC	24
Pattadakal PHC	26
Guledagudda CHC	37
Togunashi PHC	30
Katageri PHC	33
Halakurki PHC	26
Kerur CHC	20
Hoolageri PHC	33
Mustigerri PHC	28
Kulageri PHC	29
Kakanur PHC	33
<b>TOTAL</b>	<b>388</b>

## ANGANWADI MAPPING IN BADAMI TALUK

Biocon Foundation mapped the Anganwadis in October 2013 in Badami Taluk, to understand logistic challenges.

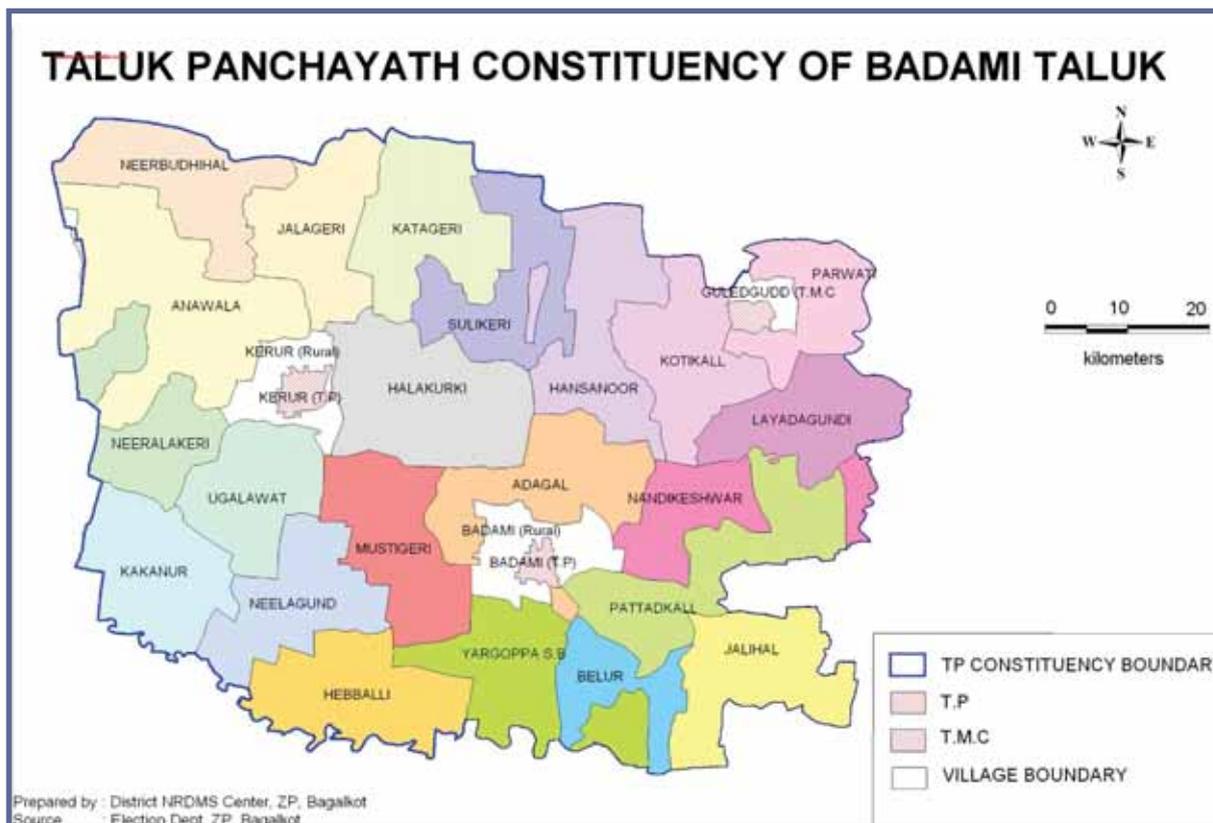
We derived the following inferences from the mapping:

- Distribution of malnourished children across Anganwadis
- Evaluation of infrastructure and manpower
- Definition of core problem areas

No of Children under 5  
(as on October 2013)

Normal	18766
MAM	9658
SAM	168
<b>Total</b>	<b>28,592</b>

*MAM: Moderately Acute Malnutrition*  
*SAM: Severely Acute Malnutrition*



*Infrastructure: Where is the Anganwadi Housed?*

Type of Building	Percentage
Own building	63
Temple	10
Rented Building	9
Community Building	6
Temporary construction	4
Panchayat	3
School Building	3
Youth mandal	2

*80 % of the Anganwadi buildings were in good condition. However, number of malnourished children were higher in Anganwadis that were housed in Temples and other non-school structures*

*Facilities available at the Anganwadi:*

Facility	Yes (%)	No(%)
Toilets	45	55
Potable Water	91	9
Kitchen	61	39
Electricity	52	48
Store room	70	30

*Number of malnourished children higher in anganwadis without kitchens, store-rooms and electricity.*

## STRATEGY

### Community Awareness & a participatory approach:

- Biocon Foundation is working with Women Self Help groups in the community. These groups become key influencers of community behavior.
- Focused awareness workshops for parents or care givers of malnourished children, about good nutrition, best rearing practices, ill effects of malnutrition and symptoms of nutritional deficiencies in children.
- Intensive IEC efforts to increase awareness and get families to buy into best practices. Behavioral nudges through the community radio stations and the communities themselves.



Growth monitoring chart explained by the doctor at Paediatric Camp, Mushtigere

### Focus on the oscillators

- Most programs concentrate on the severely malnourished children. Biocon Foundation while facilitating care of severely malnourished children also focuses on the moderately malnourished children.
- Appropriate interventions like parental counselling and treatment of health issues are initiated as soon as children enter the MAM category, as against intervening only when they enter the SAM category.
- SAM children who improve and become moderately malnourished are Oscillators - that is, any illness or nutritional aberration can push them back to the SAM category. These children are followed up with supplementation and health checkups for 6 months to ensure that they do not become severely malnourished again.

### Infrastructure

- Leverage existing government delivery mechanisms and infrastructure to achieve optimal and sustainable nutrition.
- Strengthen the convergence between the different departments responsible for maintaining nutrition levels – the Public Distribution

System; the Health Department and the Women and Child Department.

- The present Anganwadi nutrition program is limited by the shelf life of raw materials. Biocon Foundation has started kitchen gardens in Anganwadis which have space, in order to provide a continuous supply of micro nutrient rich fruits and vegetables.
- Anganwadis with space have been short listed to start play areas as the well-being of a child depends on all round holistic development.

### Health Check Ups

Monthly Health Check-up by the PHC medical officer of the severely malnourished child is mandatory. Biocon Foundation facilitates this with transport, follow ups and coordination with Anganwadi supervisors and workers. Protein, calcium, iron and multi vitamin supplements as prescribed by the doctor are distributed by Biocon Foundation to the children.



Kitchen garden planted by Biocon Foundation in Kutakanakeri

### Capacity Building and Problem Solving

Biocon Foundation representatives attend the regular monthly meetings with Anganwadi Supervisors to discuss core problem areas; once the problems are enumerated a management strategy is planned and executed.

Our team also participates in the monthly anganwadi teachers' meeting. We discuss problems faced by them and try to work on solutions. Training regarding best practices is also imparted.

Anganwadis	Biocon Foundation Anganwadi Kitchen Gardens	Total number of Children (Anganwadi Beneficiaries)	Undernourished children (moderate and severe)	Children who received Biocon Foundation sponsored Nutritional supplementation
388	28	28592	9826	750

## PREVENTIVE HEALTH EDUCATION & IMPLEMENTATION HIGHLIGHTS

Preventive health education continues to provide the education and communication required to encourage people to adopt healthier behavior that will improve overall health.

### Preventive Health Education - Topics In 2013 / 2014

- *Reproductive Health and Cervical Cancer*
- *Diabeties & Hypertension follow-up*
- *Tobacco cessation during oral cancer screening & during house visits*
- *Anemia in pregnant women*
- *Mother Neonatal & Child Health (MNCH) with emphasis on Malnutrition*
- *Personal hygiene workshops continued*
- *First Aid*
- *Diarrheal diseases*



Awareness program conducted by doctors on Child health and Nutrition, Mushtigere

- *Safe & Clean drinking water*
- *Dengue & Chikungunya*
- *Home & Environment Hygiene*

## KEY INFLUENCERS REACHED THROUGH PREVENTIVE HEALTH EDUCATION

Name of the clinic	Key influencers trained
Huskur	1350
Hennagara	1750
Austin town	4750
K R Puram	1345
Kalkunte	4685
Kaladgi	4468
Chikballapur	5225
Mandya	7250
<b>TOTAL</b>	<b>30823</b>

### NATIONAL PULSE POLIO PROGRAM

The Anekal government asked Biocon to help with the pulse polio drive in Hebbagodi Gram Panchayat on 19th January, 2014. Biocon provided 10 tempo travellers to ferry 65 volunteers from Biocon to the interior villages.

Following this Biocon Foundation employees conducted a door to door survey to ensure that every child less than 5 years had received the polio drops. More than 12,000 children under 5 were vaccinated during this program.



Oral Polio Vaccination

## MATERNAL NEONATAL AND CHILD HEALTH

Biocon Foundation tries to ensure that vulnerable groups in our communities, that is women and children, have access to optimal, standardized health-care services. Logistic and financial constraints often result in compromising women and children's health requirements. Through our primary health platform we are able to provide additional specific services for women and children:

- *Obstetrics and Gynaecology (OBG) clinic, Kaladgi*
- *Mother and Child Health clinic, Kalkunte*
- *Workshops on the Importance of Breast Feeding*

- *Eradication of Malnutrition, Badami*
- *Early Detection and Prevention of Cervical Cancer*

The OBG specialist clinic at Kaladgi, started in July 2013, is an initiative to improve women's health in this highly underserved area. A Gynaecologist from Bagalkot (25 kms away), visits the clinic once a month. Haemoglobin tests are done for all antenatal women free of cost. Drugs are dispensed at cost price. Women are given reproductive health education, antenatal care instructions and best rearing practices information during these clinics.



Awareness session for parents at Maternal, Neonatal and Child camp, Mushtigere



Mothers and Children at Mother and Child health camp, Kaladgi

### THE OBG SPECIALIST CLINIC AT KALADGI

Month	Obstetrics	Gynaecology	Total Patients
July 2013	17	22	39
August 2013	17	32	49
September 2013	18	17	35
October 2013	11	23	34
January 2014	15	30	45
February 2014	14	24	38
March 2014	14	28	42
<b>TOTAL</b>	<b>106</b>	<b>176</b>	<b>282</b>

The Mother and Child Health clinic at Kalkunte is conducted once a month by the doctors from the Department Of Community Medicine, St John's Hospital. Vaccines

for immunization are collected in a vaccine carrier from the Government Primary Health Centre on the day of the camp, in order to ensure standard vaccines and cold chain maintenance. Ante natal and Immunization data is shared with the Auxiliary Nurse and Midwife, to maintain continuity of care.

### THE MOTHER AND CHILD HEALTH CLINIC AT KALKUNTE

Month	Obstetrics	Gynaecology	Immunization	Total Patients
April 2013	11	4	16	31
May 2013	6	1	12	19
June 2013	6	2	15	23
July 2013	9	8	17	34
August 2013	11	8	9	28
September 2013	10	4	15	24
October 2013	5	8	9	23
November 2013	6	9	11	26
December 2013	6	13	10	26
January 2014	5	3	25	33
February 2014	10	1	11	22
March 2014	8	4	16	28
<b>TOTAL</b>	<b>93</b>	<b>65</b>	<b>166</b>	<b>324</b>

A Workshop on the importance of Breast Feeding, was conducted at the BBMP Maternity Hospital in Austin Town in August 2013, in collaboration with Department Of Community Medicine, St John's Hospital. 50 pregnant and lactating attended the workshop. We concluded the workshop with a quiz competition and prize distribution for best answers. The workshop was very interactive and helped abolish many myths associated with breast feeding.

## PRIMARY HEALTHCARE - AROGYA RAKSHA YOJANA (ARY) CLINICS

The nine Arogya Raksha Yojana Clinics continue to offer clinical services to unreached and underserved communities. This year we have seen 60,050 patients across all our clinics. In addition we treat patients through our outreach camps, for which our clinics collaborate with local hospitals or NGOs.

- The ARY Clinics focus on providing a single-point see-and-treat model of primary care. This is made possible by providing the range of primary care services at one point for the convenience of our patients.
- Each clinic offers medical consultation, generic drugs and diagnostic tests. All services are charged nominally, 90% of the cost

of the clinic services are borne by the foundation.

- All patients who are treated in our clinics get a unique patient ID and their data is stored electronically in a central server in Biocon.
- We continue to collaborate closely with the local government primary health centres. ASHA workers are actively involved with our preventive health programmes
- Clinics are the focal points for training the community health workers and for implementing the preventive health interventions.
- Clinics continue to promote health insurance to patients to ensure that critical surgeries are covered – this could be the ARY Health Micro Insurance or the government insurance schemes for BPL patients.



Patients at Diabetic Retinopathy Camp, Huskur village

The dental nodal centres are established to create awareness about oral health and to make dental treatment affordable and accessible to rural communities. Karnataka Ligayath Education (KLE) Society's Institute of Dental Sciences, Bangalore has helped Biocon Foundation to set up nodal centres at Chikkaballapur and Kalkunte.

## CLINIC STATISTICS- NUMBER OF PATIENTS

Clinics	YEAR									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
Huskur	7345	9367	10385	11274	12845	13287	14230	13034	11431	103198
Chikballapur		960	2015	2846	3576	6834	8712	12473	12018	49434
Kaladgi			759	946	1956	9364	11364	10370	10135	44894
Austin Town			635	945	2874	4384	5613	3673	2894	21018
KR Puram				645	2164	6359	7352	6731	4182	27433
Mandya					102	1067	6146	5833	5601	18749
Hennagara						793	4858	6454	8052	20157
Kalkunte							1654	2678	4993	9325
Old Clinics	3746	4821	1045				2802	3280	744	16438
<b>TOTAL</b>	<b>11091</b>	<b>15148</b>	<b>14839</b>	<b>16656</b>	<b>23517</b>	<b>42088</b>	<b>62731</b>	<b>64526</b>	<b>60050</b>	<b>310646</b>



Patients waiting for medical consultation at ARY Clinic, Kaladgi

Respiratory infections and viral fever followed by water borne diseases like Typhoid and Gastroenteritis continue to be the main infectious diseases seen at the clinic. We are now working closely with local Panchayats to ensure that these areas get clean drinking water. In addition regular behavioral nudges to promote hand washing and use of toilets are carried out in the community.

### INFECTIOUS DISEASES

Clinic	Infectious Diseases					
	Malaria	Dengue	Typhoid	Acute gastro-enteritis	Respiratory Tract infection	Others
Huskur	2	0	5	596	487	279
Chikballapur	1	3	31	867	967	132
Kaladgi	14	0	30	358	844	268
Austin Town	0	5	1	31	148	125
KR Puram	0	0	25	226	238	540
Mandya	0	11	171	333	667	170
Hennagara	0	0	113	123	78	997
Kalkunte	0	0	38	101	480	400
<b>TOTAL</b>	<b>17</b>	<b>19</b>	<b>414</b>	<b>2635</b>	<b>3909</b>	<b>2911</b>

### CHRONIC DISEASES

Clinic	Number of visits for Chronic Diseases				
	Diabetes Mellitus	Hypertension	Cardiovascular Disease	Asthma	Cancer
Huskur	394	340	9	0	1
Chikballapur	1589	1461	158	219	0
Kaladgi	254	52	17	103	0
Austin Town	520	591	28	7	1
KR Puram	444	476	0	96	0
Mandya	443	345	147	103	0
Hennagara	222	165	0	133	0
Kalkunte	984	340	0	22	3
<b>TOTAL</b>	<b>4850</b>	<b>3770</b>	<b>359</b>	<b>683</b>	<b>5</b>

## OTHER OUTREACH SERVICES – HEALTH CAMPS – 2013 - 2014

NGO	No. Camps	No. Patients
VDRMT	3	4000
St. Ann's, Bangalore	1	350
JIVAS	30	1327
Ophthalmology camp	8	195
Dermatology camp	1	34
Orthopaedics camp	6	116
Physiotherapy camp	6	58
<b>TOTAL</b>	<b>55</b>	<b>6080</b>



Growth monitoring at Mother and Child Clinic, Kalkunte

## SECONDARY & TERTIARY HEALTHCARE

### Arogya Raksha Yojana Health Micro Insurance

The Arogya Raksha Yojana Health Micro Insurance was launched in 2005 to protect poorer communities from catastrophic illness which often lead them into a vicious cycle of debt and poverty. This is a self-paid program, members who enrol for a sum of Rs. 280 (\$4.68), are covered for surgeries up to Rs. 100,000 through a network of approved hospitals.

The government of Karnataka now runs a number of health insurance schemes for people living below the poverty line. ARY Insurance has roughly 30,000 customers who have renewed their membership every year. In addition to the insurance these members are entitled to a number of concessional services at the ARY Clinics.

### CLAIMS ANALYSIS

	2010	2011	2012	2013	2014
No. of Lives	74,754	79,529	58,864	36,700	34,500
Premium (Rs. Lakhs)	93.85	116.43	96.40	95.42	81.57
Premium per life (Rs)	125.55	146.4	163.76	260.00	236.00
No. of hospitals	30	35	35	38	34
No. of claims	527	452	565	367	354
Value of claims (Rs lakhs)	112.62	186.28	134.95	78.17	69.15
Avg. Claim Cost (Rs.)	21,370	23,183	23,900	21,300	19,533
Claim Ratio (%)	122	160	140	81.9	117%

## CLAIMS BY ILLNESSES

Illness	Procedures (2013-2014)	% of total
Cardiac Procedures	8	2.2
OB / GYN	18	5
Normal delivery	16	4.5
C - Section	31	8.7
Hysterectomy	6	1.6
Ophthalmology	78	22
All others	197	55.6
<b>TOTAL</b>	<b>354</b>	<b>100</b>



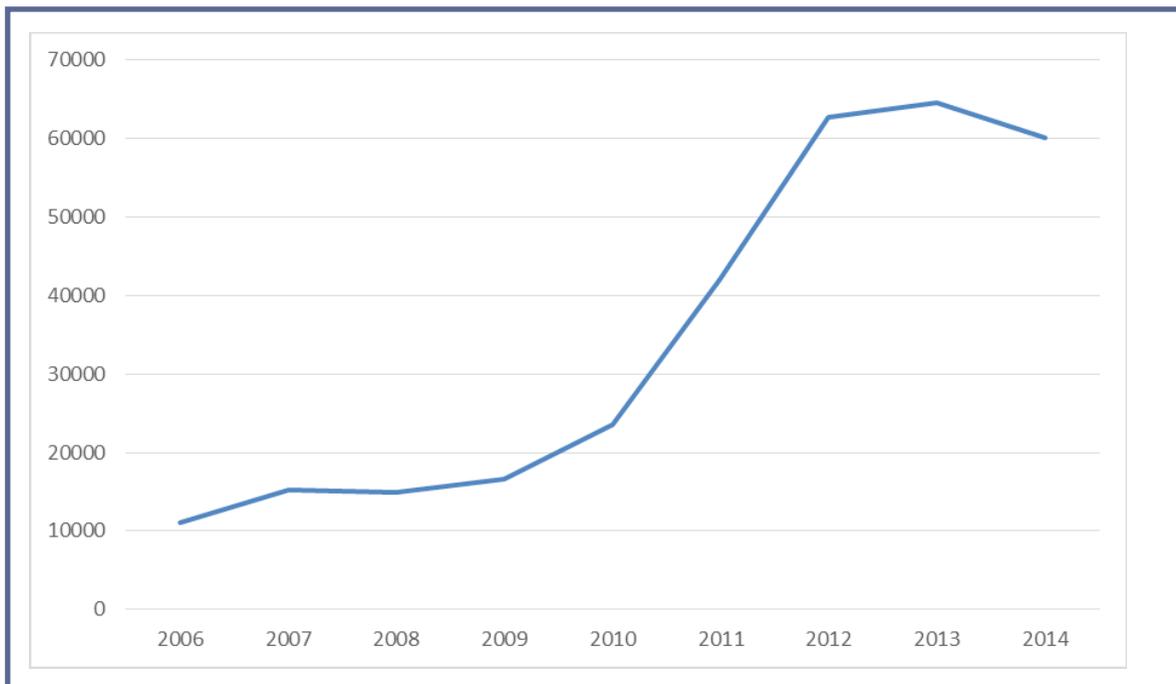
Arogya Raksha Yojana micro insurance handed over to the beneficiary, Chikkaballapura

## ASSESSING REACH & IMPACT

The Centre for Health Market Innovations (CHMI), and Impact Reporting & Investment Standards (IRIS), have jointly developed a set of health metrics that can help organizations assess the reach and impact of their work. Healthcare metrics are a group of performance measurement tools with standardized definitions recommended by CHMI and IRIS. Specific performance indicators for our programs have been taken from the catalogue of health metrics developed by CHMI & IRIS.

(CHMI – promotes programs, policies, and practices that make quality health care delivered by private organizations affordable and accessible to the world’s poor. IRIS is the catalogue of generally accepted performance metrics that leading impact investors use, to measure social, environmental, and financial success, evaluate deals, and grow the credibility of the impact investing industry).

PRIMARY HEALTHCARE  
GROWTH IN NUMBER OF PATIENTS - AROGYA RAKSHA YOJANA CLINICS



## KEY PERFORMANCE INDICATORS

BASELINE SURVEY	
Population surveyed	74,834
At risk for Oral Cancer	14,828 (26%)
At risk for diabetes and hypertension	4,856 (9%)
PREVENTIVE HEALTH METRICS	
Key motivators' counselled in 2014 (Motivators are people who have received health information from the ARY staff and are periodically visited by health workers, they propagate the health messages in the community. We encourage them to reach out to two families / eight people)	30,823
Estimated reach of preventive health education	246,584
MATERNAL NEONATAL & CHILD HEALTH	
• Total number of Antenatal cases seen at the clinics	1641
• Total number of children immunized at Kalkunte	114
NON-COMMUNICABLE DISEASES	
CERVICAL CANCER EDUCATION & SCREENING	
• Women above 16 yrs	25,179
• Key influencers counselled (>16 years)	12,903
• Women screened (>21 years)	640
• Colposcopies advised	32
• Colposcopies done	24
• Biopsies advised	12
• Biopsies done	6
• Pre Cancer	4
• Cancer	2
ORAL CANCER SCREENING	
• Population (above 16 yrs) in areas of screening	19,732
• High risk population	5,035
• Number of patients screened	4,045
• Percentage of population screened	80%
• Biopsies recommended	358
• Biopsies done	99
• Pre-malignant lesions	80
• Malignant lesions	1
DIABETES MELLITUS HYPERTENSION	
• Patients with Diabetes Mellitus & Hypertension	4,826
• Patients & family members educated	6,272
• Patients attending specialist clinics (4 clinics)	2,867
MALNUTRITION	
• Anganwadis supported	388
• Children supported	28,592
• Malnourished children (SAM & MAM)	9826
• Children receiving nutritional supplementats	750
• Kitchen gardens	28
PRIMARY HEALTH METRICS	
Individual case files registered on the ARY EMR (Clinic Management System)	30,750
Total population living in ARY clinic areas of care	74,834
Percentage of population using ARY clinic services	41%
Percentage of new case files (2013 – 2014)	23%
Ratio of ARY caregiver to total population (This metric is intended to capture individuals who provide preventive, curative, rehabilitative and promotional health services)	1:850
Infectious Diseases in ARY clinics (num)	
• Malaria	17
• Dengue	19
• Typhoid	414
The notifiable infectious diseases are reported to the Government Primary Health Centre to ensure that measures are taken to prevent an epidemic	



Education



## CHINNARA GANITHA

Evidence shows that too often children leave school without acquiring the basic knowledge and skills they need to lead productive healthy lives and to attain sustainable livelihoods. (Excerpt from Learning Metrics Task Force Report – UNICEF). Critical gaps in learning include language and numeracy skills.

Biocon Foundation tries to plug the gap in math education through the Chinnara Ganitha Math workbook. This workbook tries to approach math through activities and games, and it tries to inculcate self-reliance in the children. From 2006 we have been distributing these workbooks to children in government schools in Karnataka. These children are the most underserved and they learn under very challenging conditions. In 2013 – 2014, 110,000 books were distributed to children in 1,407 government schools in 9 districts in Karnataka.

In June 2013, Biocon Foundation, Pratima Rao, and Macmillan India, launched the Chinnara Ganitha Teachers' Training Programmes in the Taluks where the books were distributed. We have conducted orientation programs for 300 teachers across districts in order to ensure that the children receive maximum benefit from our program. Well known teachers in the field of Mathematics were used



Student with Chinnara Ganitha-easy to learn math book

as resource persons for the orientation. Several tips with experiments on how to make Math class an interesting period for the children were shared with the teachers.

Place	Std 1	Std 2	Std 3	Std 4	Std 5	Std 6	Std 7	Total
Anekal / Kalkunte / IISc Schools	6284	6871	3792	3983	3726	3615	3515	<b>31786</b>
Chikballapur	1800	1569	1664	1454	1454	1485	1529	<b>10955</b>
Coorg	1600	1800	1750	1650	1800	1800	1900	<b>12300</b>
Mandya	2580	2210	2594	2813	2895	2400	2831	<b>18323</b>
Badami	600	550	600	650	650	700	700	<b>4450</b>
Kaladgi	300	300	300	250	250	325	250	<b>1975</b>
Dandeli	600	800	800	750	800	800	950	<b>5500</b>
Joida	1500	900	950	950	925	925	975	<b>7125</b>
Haliyal	1800	2800	2800	2500	2700	2700	2500	<b>17800</b>
<b>TOTAL</b>	<b>17064</b>	<b>17800</b>	<b>15250</b>	<b>15000</b>	<b>15200</b>	<b>14750</b>	<b>15150</b>	<b>110214</b>

Chinnara Ganitha books were distributed to **1407** Government schools in 2013-14.

*“Strengthening the learning of basic math concepts through experiential learning”.*

### AATA PAATA WADI

The Aata Paata Wadi in Thithimathi, Kodagu, continues to serve children from local government schools; it is a place where children are taught spoken English & digital literacy. Through this program we hope to expose children from economically weaker sections to opportunities that are provided in urban schools. 192 children have benefitted from our centre and at present we have 20 children.

The children were taken to Primary Health Center, Thithimathi for

periodic health check-ups. Along with height and weight, blood grouping and other ailments were checked and treated. Used clothes were collected by the centre staff and distributed to the children.

In spite of many challenges, at the year-end, there has been vast improvement in the children's overall perception of life, education, health, environment, family, etc. Significant changes have been observed in height and weight, and personal hygiene levels.



Children at after school resource centre, Thithimathi

## OUTCOMES

Though this is a small program with limited scale, a few schools have adopted our model and government officials visited our centre.

1. Feedback from government officials - Mr. Iranna from the Ministry of Human Resource Development and Mr. Nagesh from the Institute of Social and Economic Change on V.K.R.V. Road, Bangalore visited the centre. They were doing a survey on Sarva Shiksha Abhiyan and during their interaction with children in G.M.P. School, Thithimathi, they noticed that some of the children were more aware than the others. On further enquiry, they were told that these children had attended Aata Paata Wadi. It is encouraging to note that the children from Aata Paata Wadi stand out in school.
2. Two government schools have requested the centre to sponsor the Phonic book – Level 1 to use the same for the Grade 1 children.



Art workshop at Aata Paata Wadi Centre, Thithimathi

3. Crash course in basic computers was conducted for 32 children of Grade 7 from GMP School, Thithimathi
4. Introduced value education classes to the residential school children through the Ramakrishna Sharada Ashrama, S. Kodagu.

*“An after-school resource center for underprivileged children”.*

## BIOCON WOMEN'S SELF-HELP GROUP, THITHIMATHI



SHG woman engaged in making gift wraps, Thithimathi

The women's self-help group started in 2012 with 5 women from the local area to enhance their income and boost their self-confidence. Trisha Ponappa trained the women on to make gift wrap paper and gift envelopes using local flora.

We continue to improve our products and introduce new designs. From

April 1st 2013 to 12th Feb 2014 the group earned Rs.27,023/-

This year the women sold 100 gift wrap sheets at the Coffee Santhe in Bangalore, and continue to sell at Orange County-Sidapur, Bamboo Club - Pollibeta, Nambikay-Madikeri and Nilgiris Supermarket - Gonikoppal.

## KELSA+

Kelsa+ provides a platform to low income support staff to learn basic knowledge in computers. Two different sections are made available for the male and female staff. Three internet enabled computers have been installed in the campus. Two trainers teach the staff to use computers, search engines, read newspaper online, place online ads, create Facebook page, open e-mail accounts, etc.

The male staff are quite confident and they work independently. They have created individual email ids, Facebook pages and play online games.

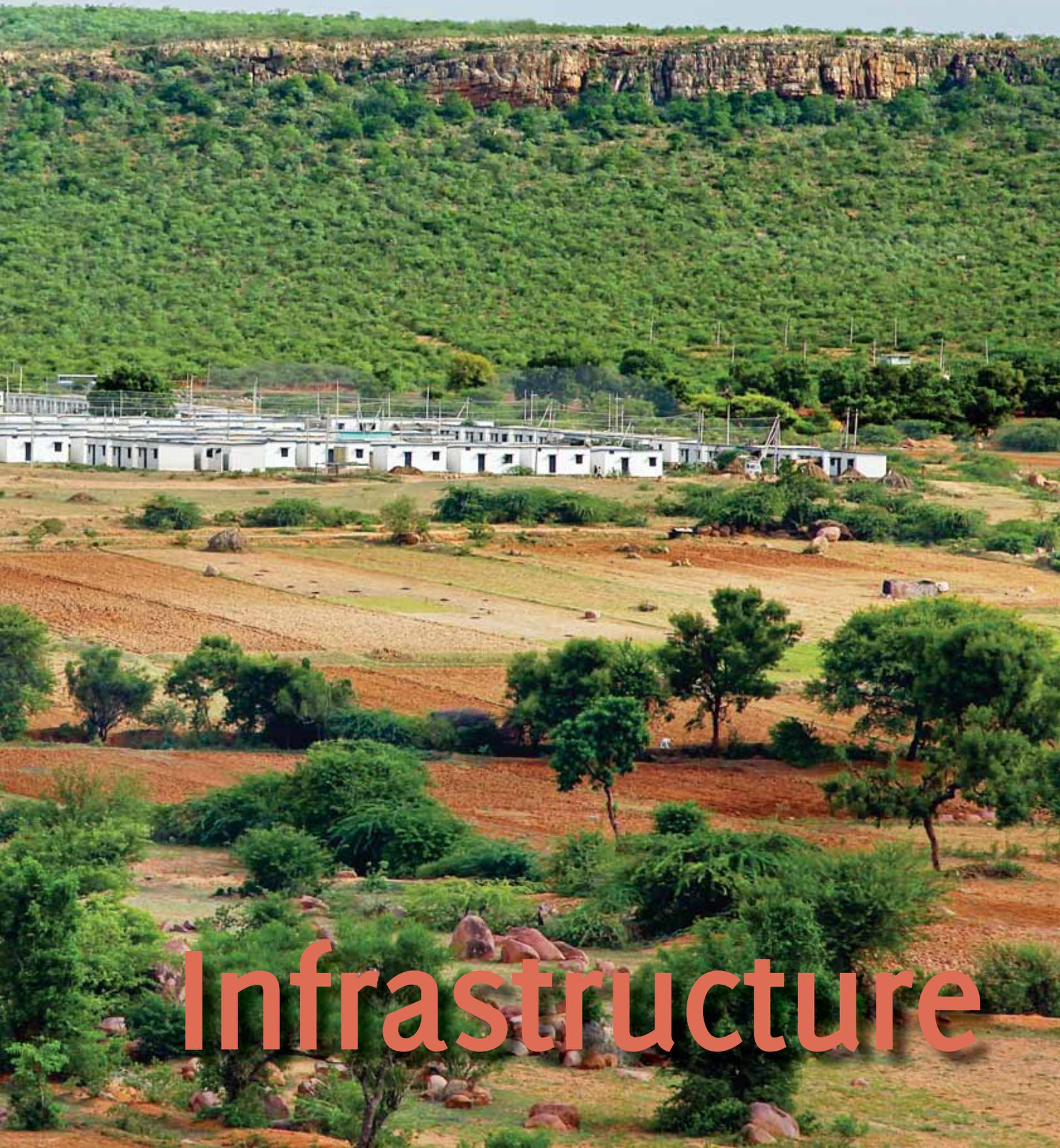
Based on requests from the beneficiaries, the computer literacy programme for the ladies has now expanded to specific skill development. The ladies painted Diwali diyas in their free time and put up a stall in our various campuses, the diyas were sold out.



Women at Kelsa + session



III.



# Infrastructure

## HUSKUR VILLAGE

Huskur Gram Panchayat, in Anekal Taluk is 20 kms from Bangalore City. Its population of 4287 people is spread over seven villages. This Gram Panchayat is famous for the ancient Madduramma Temple which attracts thousands of devotees and vendors for the holy pilgrimage, held in April every year. For one week, Huskur plays host to more than 40,000 people who visit this temple. For the rest of the year, there is a steady stream of pilgrims to this temple, each year the temple records about 100,000 pilgrim visitors. This has increased the demand for sanitation, and though we have been able to provide toilets and bathing areas (in 2006), a sustainable sewage treat-

ment plant was needed. This plant will be ready and operational by October 2014.

## MADDURAMMA KALYANI

The Madduramma Temple Tank will be restored to form a beautiful water body which will also be able to harvest rainwater. We hope that this project will encourage the community to conserve water in other villages. These two initiatives are being developed and implemented in collaboration with the Government of Karnataka, the Madduramma Temple Trust, the Huskur Panchayat, and ARC Consulting Services.



The Madduramma Temple Tank, Huskur village

## BIOCON NAGAR- MANGALGUDDA, BAGALKOTE

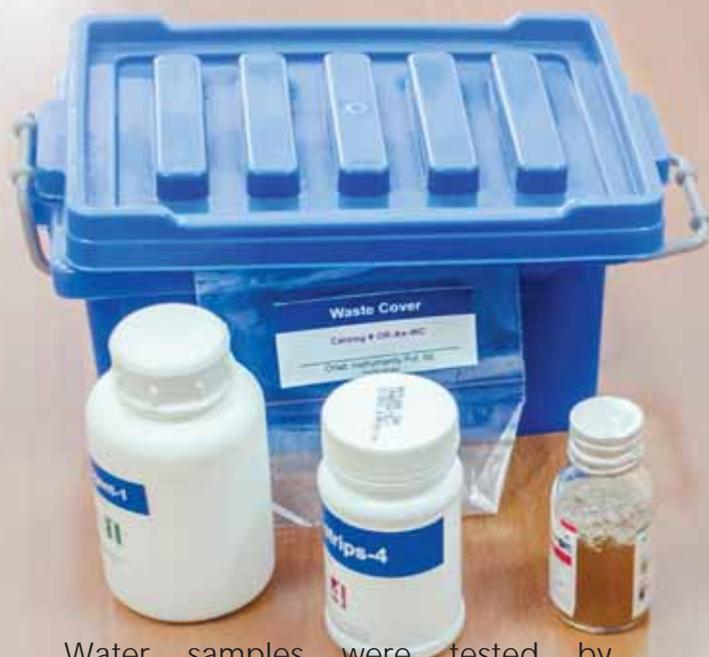
Biocon Foundation constructed 411 houses for the flood victims in Bagalkote. The houses were handed over to the district administration in December 2012. Now that most of the houses have been occupied, we will begin the construction of the health and community centre, and the primary school.



Resident with livestock, a daily sight at Biocon Nagar

## WATER PURIFICATION SYSTEM

Due to inadequate access to safe and clean drinking water, our clinics are still seeing many cases of gastrointestinal infections, typhoid etc.



Water samples were tested by authorised water testing agencies and based on the report, a water purification system is planned.

The ultra-filtration system will be installed in Huskur village and an RO plant will be installed in Biocon Nagar, Mangalgudda.



## NEW INITIATIVES

Biocon Foundation joined hands with Orissa Trust of Technical Education (OTTET) to augment and implement a unique mega ICT-based e-health project in the state. OTTET is already providing access to quality healthcare to 51,000 villagers in Odisha through its e-Health program in collaboration with the Government of Odisha. E-Health forms the backbone of the proposed universal healthcare pilot project in Karnataka and Odisha.

Our project is focused on delivering evidence-based healthcare to effectively deal with primary health and chronic conditions in communities with poor access to quality healthcare. This single point, 'see-and-treat' model of e-Health centre is critical to improve the health of rural communities for whom even reaching a PHC is a major challenge.

This project is also aligned to our commitment towards inclusive development by empowering rural communities. This PPP model will achieve all-round socio-economic and national development as it will result in creation of jobs and development of semi-skilled individuals.

Under this project, electronic diagnostic facilities and e-Health centres are being set up at all primary health centres (PHC) of Odisha government. These are managed by local young entrepreneurs who are provided financial assistance by Canara Bank. They are being trained by Biocon Foundation and OTTET to support the medical officer at the PHC for various healthcare and diagnostic services such as:

- Measuring each patient's vital stats like blood pressure , pulse, haemoglobin and blood sugar
- Providing diagnostic tests that the doctor prescribes and requires for accurate diagnosis
- Providing telemedicine consultation for patients who require specialist advice

The project focuses on capturing all patient records on the electronic system with a view to providing easy access for treating doctors both at the PHC and at tertiary hospitals. Patient data will also be available to the government to study disease patterns and to create a database, which will help implement evidence-based healthcare interventions.

## Universal Health Care (UHC)



### Expectations from UHC

- Equitable access across socio-economic strata
- Affordable and appropriate quality healthcare
- Promotive, preventive, curative and rehabilitative health services
- Government to be the enabler, a provider and a reimburse of services
- Private sector as a provider of services

Source: Adapted from High Level Expert Group Report on Universal Health Coverage 2012

### eHC Model: Fulfilling Expectations from UHC

