



A Decade of Positive Change

ANNUAL REPORT 2015

VISION

To promote social and economic inclusion by ensuring that marginalized communities have equal access to healthcare services and educational opportunities



Dear Reader,

Biocon Foundation has completed ten years of meaningful work in the area of improving the life of marginalized communities through targeted, efficient and sustainable programs that use innovative solutions for delivering essential healthcare services, basic education, civic infrastructure for sanitation and better hygiene for the people in rural Karnataka.

Most of the growing emerging economies the world over have realized the importance of inclusive growth and have accordingly upped the government spending in health, education, sanitation and infrastructure with the objective of improving the health and economic standards of the marginalized communities.

However India, has fallen short in many measures in this area, key social indicators on health, education and nutrition, reflect India to be very close to the bottom rung with the exception of the African countries. This has clearly impacted the overall health of the economy of a billion plus population.

Since 2004, our team at Biocon Foundation has been passionately engaged in addressing some of these issues through direct as well as collaborative projects with the government through smart Corporate Social Responsibility (CSR) models that are viable and scalable.

Over the past decade, we have addressed the 'Right to Health,' the 'Right to Education' and the 'Right to Sanitation' through our numerous outreach programs for the benefit of the economically weaker sections of Indian society, including mother and child, young men and women and senior citizens as well, especially in impoverished rural areas of Karnataka.

Our goal has been to create a comprehensive and integrated ecosystem that focuses on social change and rural empowerment. We believe that by promoting social and economic inclusion through programs that build sustainability we'll make enduring social impact.

We have deployed a path-breaking mobile phone-based health (mHealth) initiative to ensure that healthcare reaches remote and underserved communities in a cost-effective manner. This IT-enabled, low-cost model is simple enough for frontline health workers to implement.

Our community-based prevention programs for diabetes, oral cancer, cervical cancer and hypertension focus on education and early detection through community screening.

Through our nine Arogya Raksha Yojana clinics, we are treating nearly 1,00,000 patients annually. Our integrated healthcare programs spanning health insurance, health delivery and health education are making a difference to the lives of 500,000 people every year.

Biocon Foundation has completed ten years of meaningful work in the area of improving the life of marginalized communities through targeted, efficient and sustainable programs that use innovative solutions for delivering essential healthcare services, basic education, civic infrastructure for sanitation and better hygiene for the people in rural Karnataka.

I am proud to say that our initiatives are receiving considerable recognition. WHO India has recently recognized Biocon Foundation as a 'Public Health Champion' for providing sustainable solutions in the area of public health with a focus on cancer, diabetes and hypertension.

During the year, we also won the Golden Peacock Award 2014 from the Institute of Directors, India, for driving social change and empowering rural communities through public health, education and civic infrastructure programs. Our community cervical cancer screening program was recognized with Asia's Best CSR Practices Award 2014 by CMO Asia at the World CSR Congress. NGO Box selected our oral cancer screening program for the 'Best CSR Project of the Year' award. We were also conferred with the award for 'Best CSR in Healthcare' at the India Health and Wellness Awards 2014.

Our mobile-based program for early detection and prevention of oral cancer was awarded a 'Certificate of Appreciation' at the NASSCOM Social Innovation Forum 2015.

The promise of 'Right to Education' prompted us to spearhead initiatives to empower underserved rural youngsters with experiential learning in basic maths, computer skills and language skills. Every year, we distribute our special 'Chinnara Ganitha' mathematics workbooks to over 120,000 children from the poorest communities who attend government-run primary schools across Karnataka.

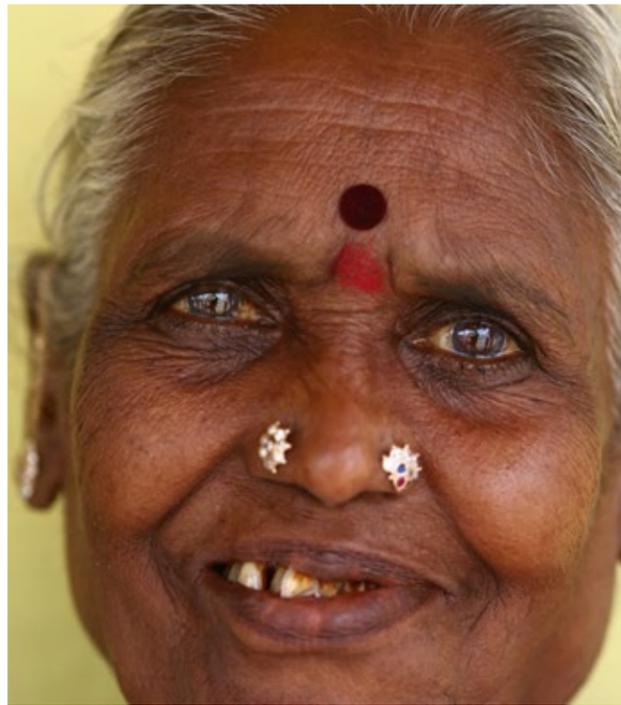
We are also addressing the 'Right to Sanitation' by working with the government to provide basic sanitation to rural communities. We have built several thousand household toilets and community toilets. In addition, we are providing clean drinking water and have set up rain water harvesting systems in villages.

At Biocon Foundation we believe that in attempting to fulfil the needs of 'Affordability', 'Availability' and 'Access' for underserved communities, we are creating social welfare models that can be replicated across Karnataka and the country.

We are confident of scaling up our initiatives to many other areas to continue our endeavour to drive sustainable social change aimed at an inclusive, equitable empowered India.

Best Wishes,

Kiran Mazumdar Shaw
FOUNDER, BIOCON FOUNDATION



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Ten Years of Positive Change



2004 - 2006

- 2004** Dr. Kiran Mazumdar Shaw established Biocon Foundation in 2004 with the objective to promote social and economic inclusion. Launched Arogya Raksha Yojana (ARY) Health Micro Insurance Program. Professor Muhammed Yunus inaugurated the first ARY Primary Care Clinic in Huskur.
- 2005** Opened one more ARY Clinic in Kanakapura. Initiated preventive health education in villages and schools.
- 2006** Expanded the primary care clinic network with two new clinics in Austin Town and Chikballapur taking the total number of clinics to 4.

Launched the Chinnara Ganitha math workbook 11,000 books distributed to children in Classes 1 and 2.

2007 - 2009

- 2007** Baseline survey was conducted to identify the disease burden in Austin Town, KR Puram, Huskur, Hennagara, Chikballapur, Bagalkot, Polali. 1, 22,351 people were surveyed across 36,833 households.
- 2008** To address the issue of open defecation and rise in infectious diseases in the geography, Biocon Foundation constructed 950 household sanitation units in Huskur.
- 2009** Mangaludda in Bagalkot District was devastated by a massive flood. As a disaster response, Biocon Foundation conducted emergency relief camps in temporary shelters.

2010 - 2012

- 2010** Established community sanitation unit in Huskur.

Scaled up the Chinnara Ganitha program across 8 locations.
- 2011** Biocon Foundation conducted a pilot study on early detection and prevention of oral cancer and initiated a mHealth community screening program.
- 2012** With rise in the Non-communicable diseases, Biocon Foundation conducted a second round of baseline survey reaching a population of 74,834 in the operational areas. It identified that 26% of the population were at risk of developing Oral Cancer and 9% of the population were at risk for Diabetes and Hypertension.

Biocon Foundation built 411 houses to rehabilitate the flood victims in Mangaludda.

2013 - Present Day

- 2013** Biocon Foundation addressed non communicable diseases by initiating programs on early detection and prevention of Cervical Cancer and Diabetes Management. Scaled up Oral Cancer Screening in Work place settings.

Biocon Foundation started Management of Malnutrition in collaboration with Government of Bagalkot.
- 2014** Established Project One- Water Purification Unit in Huskur.

Scaled up the cervical cancer program in new geographies. The mHealth Oral Cancer Screening extended to workplaces and other communities. Biocon Foundation got recognised nationally and internationally for its work in NCDs. Received WHO Public Health Champion Award.

Chinnara Ganitha books were distributed to 1,24,732 children across 1542 schools.

Program Overview

Biocon Foundation is committed to implementing sustainable solutions for India's most pressing healthcare needs. One such need is combating the rise of chronic diseases across India. At last count (2008), it was estimated that chronic diseases accounted for 5.2 million deaths in India – WHO.

Biocon Foundation has been providing accessible and affordable healthcare solutions to poor and marginalised communities for 10 years. These years of grassroots level engagement with the community brought us to the realisation that there was a gap in delivering NCD services which we could bridge effectively by developing cost effective models.

Our healthcare programs are focussed on early detection, prevention, and management of non-communicable diseases like cancer, diabetes, and hypertension. These programs are delivered through our network of primary healthcare clinics and community health workers; and our hospital partners.

In April 2015, our work in non-communicable diseases was endorsed when WHO recognised Biocon Foundation as a PUBLIC HEALTH CHAMPION in India. This was for our outstanding contribution in the public health domain. We also support education initiatives that can impart better learning to the underprivileged students in rural schools and empower communities by providing proper infrastructure for self - sustained villages with health centre, community centre, schools, sanitation, and water.

Biocon Foundation is a registered trust under the Indian Trusts Act of 1882. Registration number IV 410/06-07 dated August 9th, 2006.

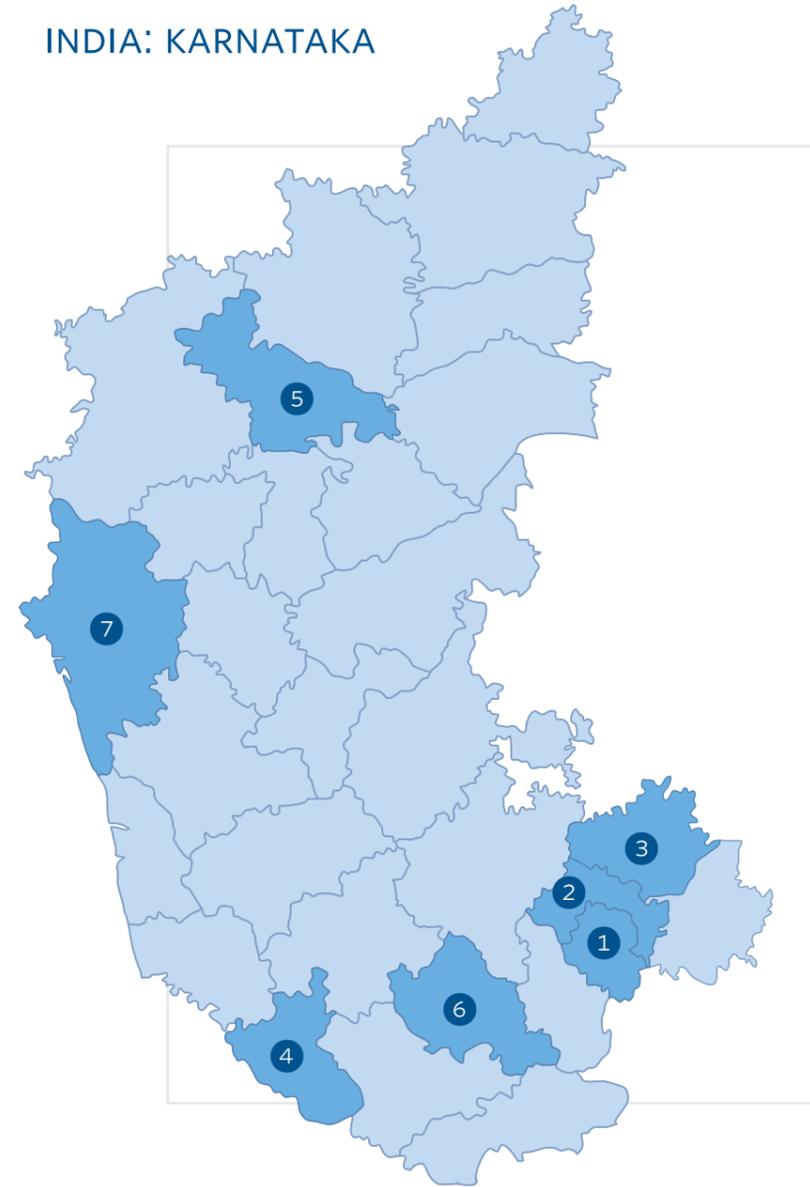
The trust is recognized under Section 80G of the Income Tax Act 1961.

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

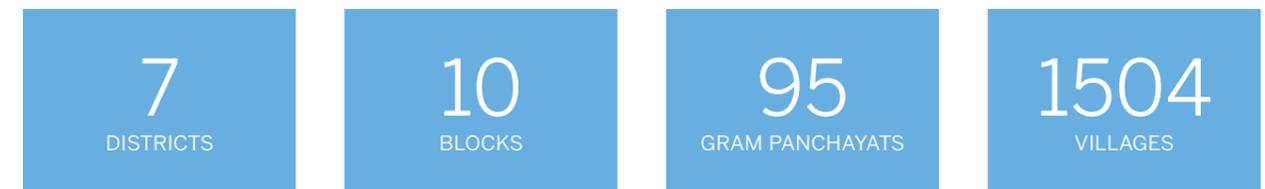


Our Reach

INDIA: KARNATAKA



- 1 Bangalore Urban
- 2 Bangalore Rural
- 3 Chikkaballapura
- 4 Kodagu
- 5 Bagalkot
- 6 Mandya
- 7 Uttar Kannada



Awards and Recognition



Biocon Foundation has been acknowledged for the integrated healthcare initiative through which it is constantly engaged in improving the quality of life of several thousand communities in India. In 2014-15, the CSR program at Biocon has been recognised at several National and Global platforms for its commendable work in the development space. These achievements continue to motivate us to pursue new challenges everyday..

1. Biocon Foundation won the WHO-Public Health Champion Award for Managing Chronic Conditions in 2015
2. Biocon Foundation was conferred with NASSCOM- Certificate of Appreciation for Mobile Early Detection and Prevention of Oral Cancer Screening Program in 2015
3. Biocon CSR won the Golden Peacock Awards for Corporate Social Responsibility in 2014
4. Biocon Foundation was recognized for the Best CSR in Healthcare Program at the India Health and Wellness Awards in 2014
5. Biocon Foundation received 'CSR project of the Year' presented by NGOBOX for Mobile Early Detection and Prevention of Oral Cancer Screening Program at the India CSR Summit in 2014
6. Biocon Foundation was conferred with Asia best CSR Practice Award 2014 for Cervical Cancer Screening Program
7. Biocon Foundation won the Best CSR Innovation Award for Early Detection and Prevention of Oral Cancer Screening Program at the World CSR Congress in 2014

Highlights

5,17,208

PEOPLE REACHED THROUGH PREVENTIVE HEALTH EDUCATION

60,400

BENEFICIARIES VISITED ARY CLINICS

30,000

CHILDREN REACHED THROUGH MALNUTRITION PROGRAM

5,000

VILLAGERS RECEIVED CLEAN DRINKING WATER THROUGH PROJECT ONE

1,24,732

CHILDREN RECEIVED CHINNARA GANITHA BOOKS

16,000

HIGH RISK POPULATION IDENTIFIED THROUGH ORAL CANCER SCREENING PROGRAM

15,300

WOMEN EDUCATED ON CERVICAL CANCER AWARENESS

5,000

VISITS FOR DIABETES CONSULTATION

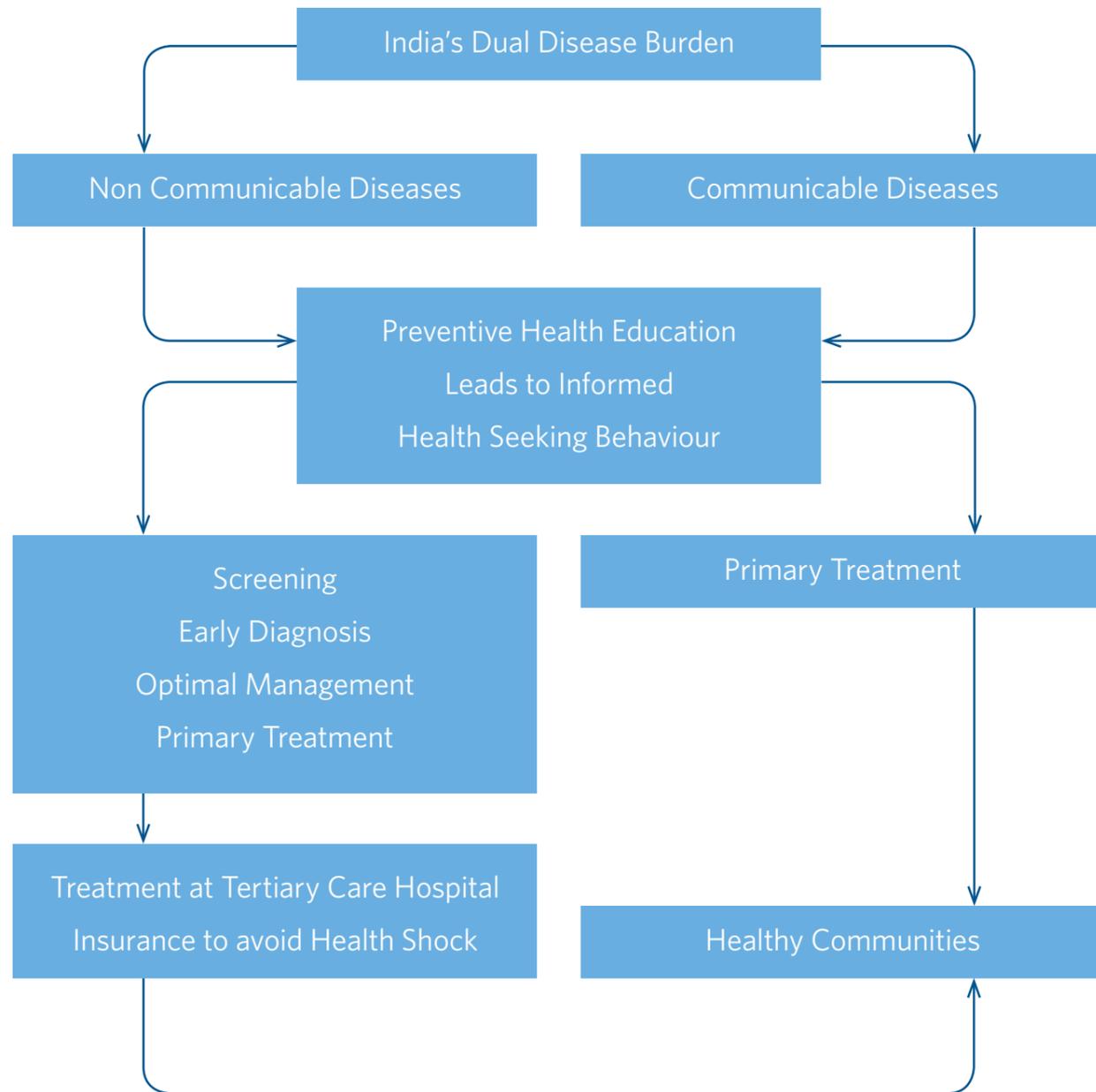


Healthcare

Integrated Health Ecosystem

Access to optimal and affordable healthcare facilities is a challenge in resource poor settings. Common barriers include low awareness about health concerns, limited primary care facilities in the community and unavailability of referral services. Due to high disease burden, rural as well as the urban poor often face health shocks which may pull them below the poverty line.

Biocon Foundation aims at improving the health seeking behaviour of the marginalised sections by designing a holistic model with focus on awareness, education, early detection, prevention and treatment facilities.



mHealth

MOBILE TECHNOLOGY IS USED IN OUR PROGRAMS TO IMPROVE REACH AND OUTCOMES.

TOOL – Smart phone with POI MAPPER Application

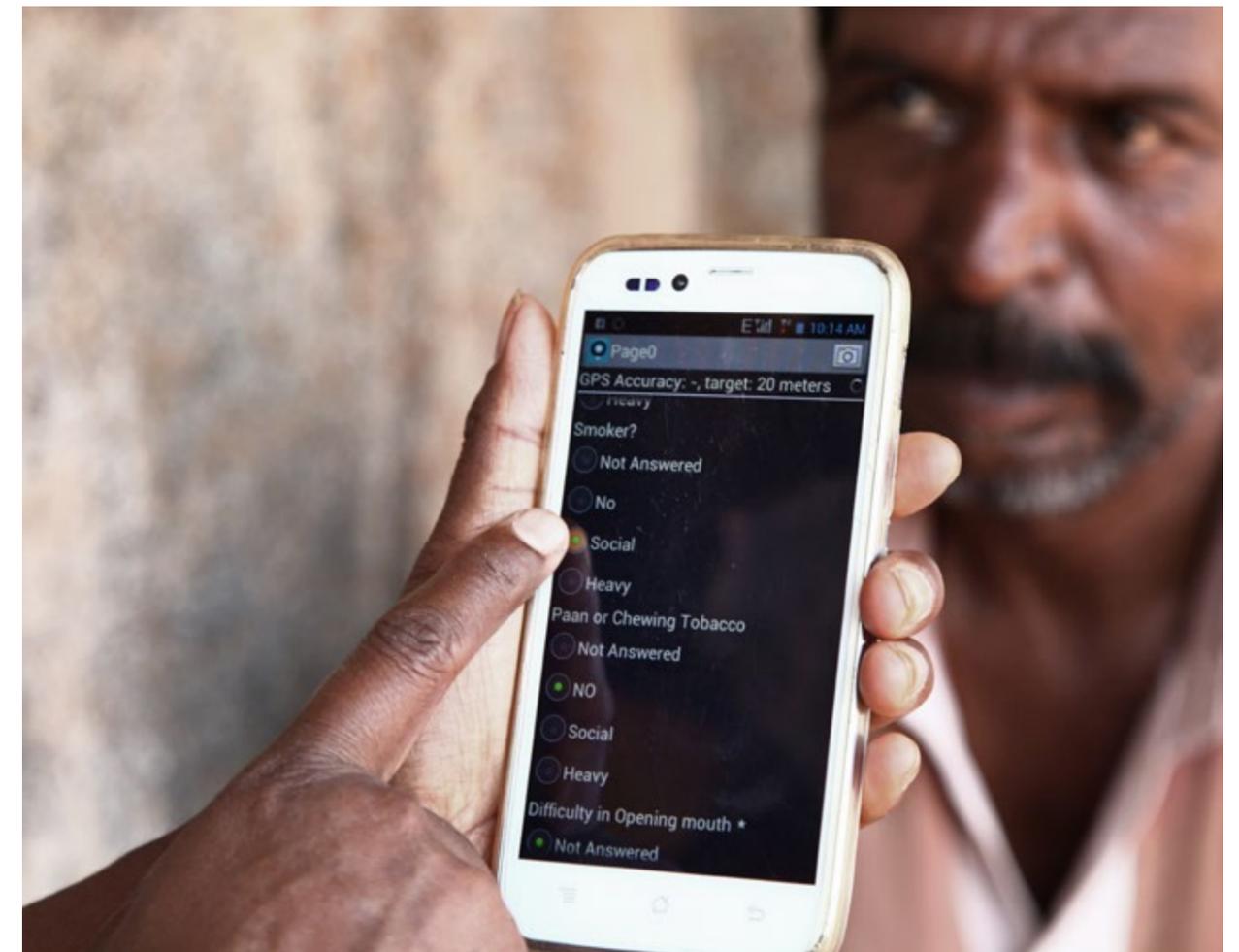
BASELINE SURVEY – This survey collects demographic and basic health information of communities we work with. The data obtained helps in designing a program in the field practice area.

ORAL CANCER SCREENING – Population and community based screening conducted with the help of mobile technology, is cost effective compared to hospital based screening. The data collected during the screening process is uploaded to a server, and is reviewed by a doctor from a remote location. The prescribed treatment is then sent back to the health worker's phone and she conveys this to the patient.

CERVICAL CANCER FEEDBACK SURVEY – The health workers, who are the last mile reach in the community, use mobile technology to conduct a feedback survey for the women who have undergone cervical cancer screening.

RISK ANALYSIS OF CARDIO VASCULAR DISORDER – Low cost smart phones are used to conduct risk analysis surveys in order to quantifiably identify cardio vascular risk factors prevalent in the community among the urban poor

MAPPING AND ASSESSMENT OF ANGANWADI – In order to develop a strategy for monitoring undernourished children, Biocon Foundation uses mobile phone technology.



Emergence of Non Communicable Diseases

NEW PUBLIC HEALTH PARADIGM

Globally, Non Communicable Diseases (NCDs) are the leading cause of premature and preventable death and illness. The four leading NCDs are cardiovascular disease (CVD), diabetes mellitus, chronic obstructive pulmonary diseases (COPD) and cancer. These NCDs are caused by most common preventable risk factors related to lifestyles like tobacco and alcohol use. As per WHO, "Vulnerable and socially disadvantaged people get sicker and die sooner than people of higher social positions, especially because they are at greater risk of being exposed to harmful products such as tobacco or unhealthy food, and have limited access to health services."¹

These modifiable risk factors and NCDs are a major cause of poverty, a barrier to economic development and a serious threat to achievement of the UN Millennium Development Goal (MDGs). NCDs account for 63% of total deaths globally with 40 million deaths estimated occurring annually. They contribute to 40% of the disease burden annually.²

In India, there is an increase in the life expectancy rate, which means a greater number of older people are at risk of developing chronic diseases. At the same time industrialization, socio-economic development, urbanization, changing age structure and a shift in lifestyle pattern result in a growing burden of NCDs, thus largely impacting morbidity and mortality.

NCDs account for 63% of total deaths globally with 40 million deaths estimated occurring annually. They contribute to 40% of the disease burden annually. - WHO

Comprehensive management of major NCDs at a national level requires a multi sectoral strategy to integrate control of NCDs and their shared risk factors.

¹ Global Status Report on Non Communicable Diseases 2014 – WHO.

² www.who.int/mediacentre/factsheets/fs355/en.



Understanding the criticality of the Chronic Conditions and identifying the gap in the service delivery, Biocon Foundation has consciously increased its focus in Prevention, Early Detection, and Management of Chronic Conditions which include: Cancer, Lifestyle Diseases like Diabetes mellitus & Hypertension.

WHO reports "In low resource settings, healthcare costs for cardiovascular diseases, cancers, diabetes or chronic lung diseases can quickly drain household resources, driving families into poverty."³ This underlines the importance of robust preventive health and early diagnosis and optimal management of a chronic disease.

In order to address this concern, Biocon Foundation reaches out to the poorest of the poor through its chronic disease awareness, early detection and management programs functional in Rural and Urban Karnataka.

³ www.who.int/mediacentre/factsheets/fs355/en



Diabetes Mellitus - Hypertension

OVERVIEW

India has more than 65 million people living with Diabetes Mellitus and the national prevalence is at 8.56%. Over 1 million diabetes related deaths are recorded in the most productive years of life between 20 and 70 years. An estimated 33% of people with Diabetes in India are undiagnosed.

Diabetes Mellitus like any other Non-Communicable Diseases are disproportionately rising among the lower income segments in India. This entails a huge out of pocket expenditure which often pushes a significant proportion of the population below the poverty line.

Out of 2867 self-reported patients with Diabetes Mellitus, 1302 are registered with our ARY clinics. Patient footfall is 4996 which is 3 times per year per patient.



ABOUT THE PROGRAM

Biocon Foundation, through its Arogya Raksha Yojana Clinic – the primary healthcare facility has developed a comprehensive disease management program for Diabetes Management.

Management of Diabetes focuses on:

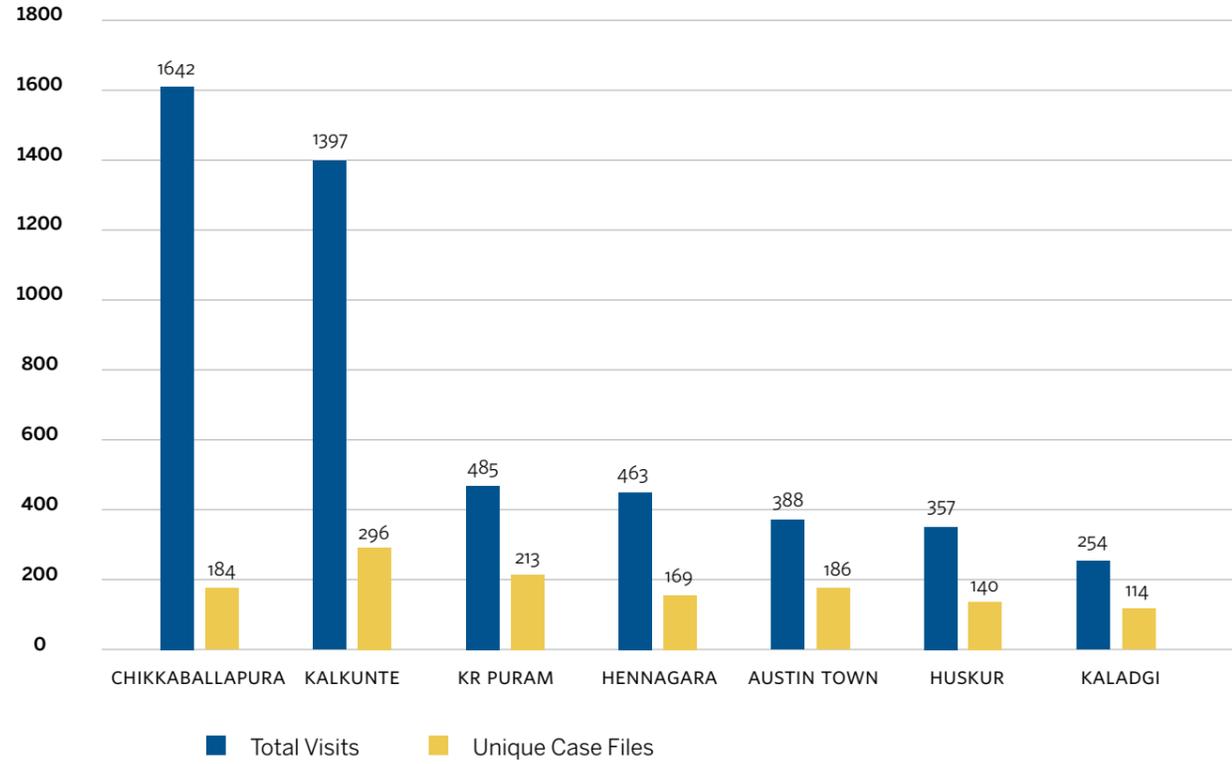
1. Increasing community awareness about Diabetes Mellitus through household visits and interactive workshops spearheaded by our Community Health Workers
2. Providing a complete primary care pathway at the community level for management of the disease. This includes capacity building of the primary care physician for the use of protocol based diagnostic and management tools. Specialist support is made available at the ARY clinics once a month. A Diabetes management file consisting of necessary information about consultation and diagnosis is provided to the patients visiting the ARY clinic.
3. Key self-care points about diet, exercise and drug compliance for optimal management of blood sugars are reiterated by the Diabetes educator during these specialist camps, she also helps the patient maintain the specially designed Diabetes file which ensures documentation and systematic follow up.
4. Patients registered in our Diabetes management program are followed up by health workers in the community.

Special camps like foot camp, Retinopathy camp are held for the screening of complications of Diabetes. These value added services encourage adherence and retention.

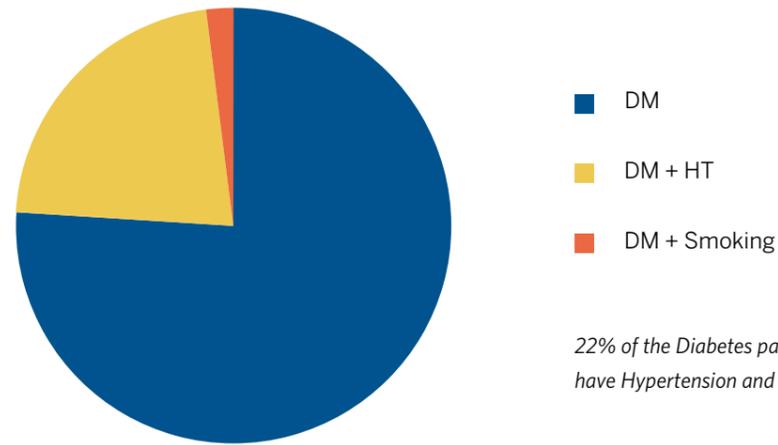
WORKFLOW OF DIABETES MANAGEMENT



STATISTICS OF DIABETES SPECIALIST CAMPS



ASSOCIATED RISK FACTORS AMONG DIABETES PATIENTS



22% of the Diabetes patients attending specialist camp have Hypertension and 2% are smokers



Mobile Early Detection and Preventing of Oral Cancer

OVERVIEW

Million Death study indicates oral cancer as one of the most fatal cancers prevalent, accounting for 35% of the total cancer deaths. The overall survival of Indian patients with cancer is about 30% lower than the developed countries and its economic fallout is devastating.

ABOUT THE PROGRAM

Mobile early detection and Prevention of Oral Cancer (mEDPOC) program by Biocon Foundation gives an end-to-end solution from early detection and diagnosis to referral. It is a mobile phone based management platform for cancer screening and surveillance.

THE PROGRAM FOCUSES ON

1. Population based screening facilitates early detection at the door step
2. This mHealth platform empowers the health workers with a decision based algorithm for early detection of oral cancer even in low resource settings and connects specialists with rural population for diagnosis creating an opportunity for follow up and referrals.
3. This technology helps in electronic data capture and takes high quality photographs of lesions. The data is linked to unique identification numbers making follow up easier.

COMMUNITY BASED SCREENING – 2014-15

LOCATION	Total population above 16 years	High Risk Population	Population Screened	Pre-malignant Lesions	Biopsies Recommended	Biopsies Done
KALKUNTE	5872	1103	864	101	83	0
CHIKKABALLAPURA	7622	3791	1759	118	84	6
TOTAL	13494	4894	2623	219	167	6

WORK PLACE SCREENING – 2014-15

LOCATION	Total population above 16 years	High Risk Population	Population Screened	Pre-malignant Lesions	Biopsies Recommended	Biopsies Done
WORKPLACE 1	14710	7355	2719	181	48	0
WORKPLACE 2	1500	923	1336	451	206	72
WORKPLACE 3	7230	3615	1188	72	28	0
TOTAL	23440	11893	5243	704	282	72

WORKFLOW OF ORAL CANCER SCREENING



Follow up screening was conducted in the previously screening locations like Mangalgudda and Huskur villages. The follow up data indicated re- screening undertaken af-

ter an interval of 2 years is more cost effective and yielded better results in identifying new cases if any in comparison with the screening conducted after 1 year.

LOCATION	YEAR	TOTAL POPULATION ABOVE 16	HIGH RISK POPULATION	POPULATION SCREENED	PRE-MALIGNANT LESION	MALIGNANT LESION	BIOPSIES RECOMMENDED	BIOPSIES DONE
MANGALGUDDA	2012	1493	712	180	67	2	36	3
	2014		712	230	57*	0	19	0
HUSKUR	2013	3301	854	97	41	0	41	0
	2014		854	92	38*	0	24	0

*At Mangalgudda, 36 out of 67 underwent follow up screening. 21 New cases were identified.

*At Huskur, 38 out of 41 cases were screened during follow up

POINT OF CARE DIAGNOSIS:

Biocon Foundation has successfully completed phase I of a study to detect salivary biomarkers using fingerprint technology, to further stratify oral lesions detected. This research is partially funded by Department of Biotechnology (Gol) & Turku University, Finland. The primary results have been successful in separating the lesions and non- lesions by using saliva. Data analysis is in the process of completion.



Biocon Foundation has initiated another research on image analysis, standardizing the procedure of image capture and device to monitor the progression of lesion in order to improve the detection and surveillance of pre-cancerous lesion.

ADDRESSING TOBACCO ADDICTION:

Most of the rural population Biocon Foundation caters to are heavily dependent on different forms of smoke and smokeless tobacco. To de addict these individuals is one of the biggest challenges of the oral cancer control program.

Out of a high risk population of 18,353, 8188 underwent Oral Cancer Screening, 1062 identified with pre malignant lesions and 544 were recommended to undergo Biopsy.

Biocon Foundation has designed an integrated technology driven approach in down staging oral cancer and has successfully brought, clinicians, health workers, bench researchers and technology together to use their expertise in understanding the disease trajectory and control oral cancer.



Early Detection and Prevention of Cervical Cancer

OVERVIEW

Cervical cancer is the 2nd most frequent cancer among Indian women between 15 and 44 years of age. In 2012, it was estimated that there were 5,28,000 cases of cervical cancer annually, 2,66,000 deaths and 1,547,000 living with cancer (within 5 year of diagnosis) worldwide.

ABOUT THE PROGRAM:

Biocon Foundation initiated an early detection and prevention program in Karnataka. The program follows a structured method:

1. Increasing awareness through community information and education - The community health workers, who are the last mile reach in this program, are responsible for training and educating women on basic reproductive and sexual health through focussed group discussions and household visits. Target audience are women above the age of 16 years.
2. Community based screening - Key beneficiaries are women above 21 years, sexually active for more than three years. In order to maintain quality and provide focussed attention, 20 women are pre-registered for each screening camp at the ARY Clinic. Every woman undergoes a systematic evaluation that includes pelvic, breast and bimanual examination. The screening method used is the Pap smear. Patients found to have Reproductive Tract Infections are given appropriate treatment. Women are counselled about repeating the Pap smear after five years.

Tertiary Care Partners

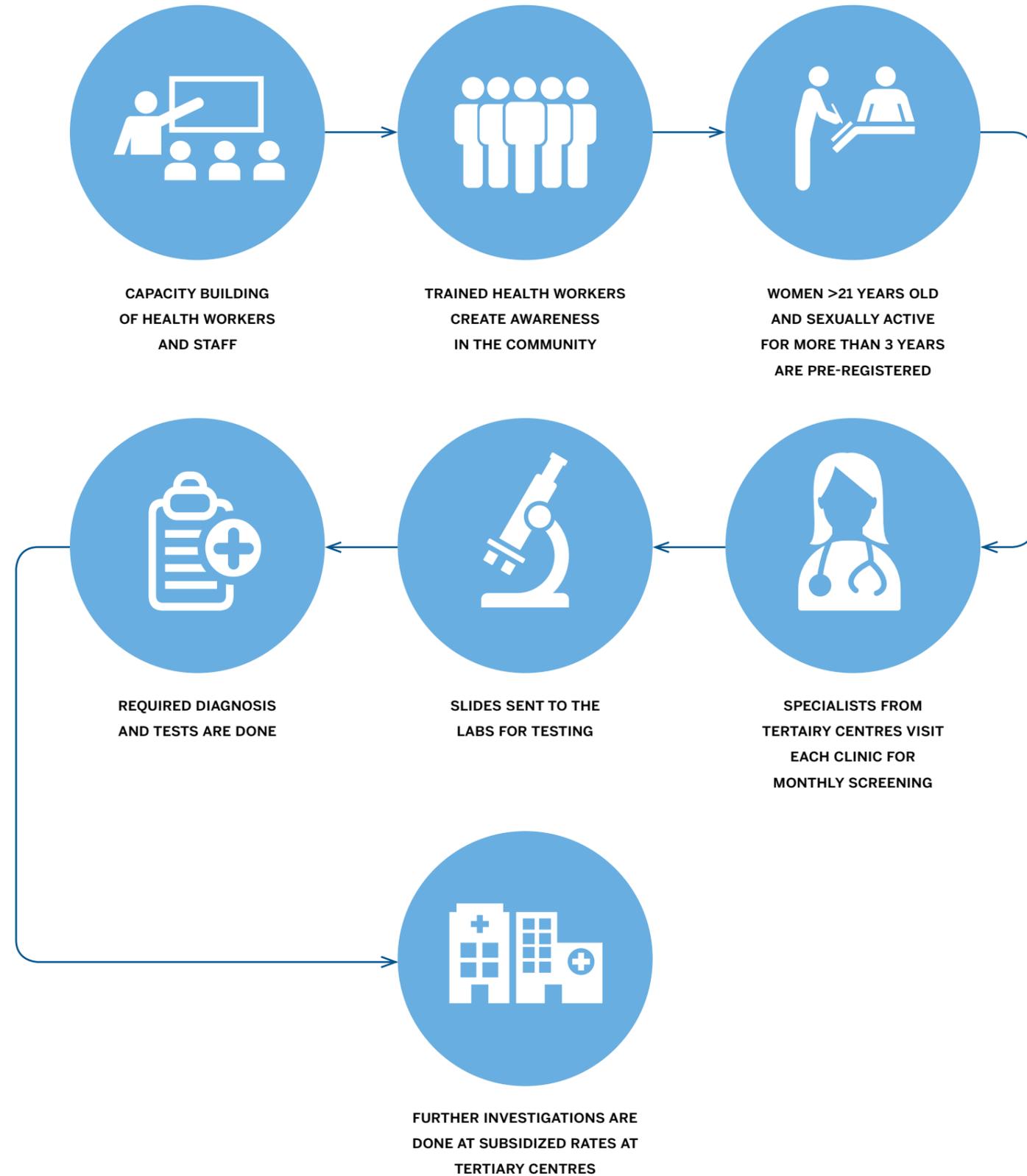
- Mazumdar Shaw Medical Centre
- St. John's Hospital
- Dr. Smitha Binod - KRPuram, Bangalore



910 women screened
13 Pap Positive
6 cases pre-cancerous and 3 with cancer
8 women treated

3. Diagnosis – Investigations like colposcopy and biopsy of Pap positive cases are done by our tertiary partners and financed by Biocon Foundation.
4. Referral and Follow up - Patients who are diagnosed with pre-cancer or cancer are counselled by our health workers about the importance of early treatment. We facilitate treatment by helping the patient choose a cancer centre most suited to their socioeconomic needs with financial support if required. Regular follow up and counselling is done by our health workers to ensure compliance for treatment.

WORKFLOW OF CERVICAL CANCER SCREENING



Survivor Story

MUNIYAMMA - 57 YEARS

57 year old Muniyamma (name changed) worked as a manual labourer in Huskur village, Anekal taluk. After attending a reproductive health and cervical cancer awareness session in her village by the community health workers, she was encouraged to undergo cervical cancer screening during the monthly screening camp in ARY clinic, Huskur in May 2014. The specialist at the camp made a provisional diagnosis of cancer on pelvic examination. Biocon Foundation requested the pathology lab to process the Pap sample on priority. The reports indicated her to be Pap Positive and she was brought to the tertiary care centre for follow up investigations. The reports revealed that she had cancer. The specialist explained to her the importance of early treatment but she refused to come for further follow ups. Understanding her socio demographic background, the Community Health Workers along with Biocon Foundation doctors counselled her to undergo treatment. She was concerned about her wage loss as she was a single parent and the primary bread winner of the family. Biocon Foundation explained the different

treatment centre options, explaining the pros and cons of each option. The team further extended their support for her treatment. Muniyamma was taken to the treatment centre and government insurance options were explained to her. These interactions with the team helped her to gain confidence and take an informed decision.

In July, Muniyamma, started her Radiotherapy sessions at the Regional Cancer Centre, Bangalore. Initially she was accompanied by a family member or Biocon Foundation Health Worker, later she started attending the sessions on her own. Her treatment cost was waived off as she was a BPL card holder. Biocon Foundation gave her travel allowance. The side effects of radiation and methods to prevent and cope with it were explained in detail to the family and the patient.

The hand holding provided to her helped her adhere to the treatment and be a Cancer Survivor.

CLINIC	NUMBER SCREENED	COLPOSCOPY	HPV DNA	PAP-POSITIVE	BIOPSY	PRE -CANCER	CANCER	TREATMENT INITIATED
HUSKUR	199	11	5	7	3	2	1	3
HENNAGARA	164	2	1	3	1	1	1	2
AUSTIN TOWN	164	1	0	0	0	0	0	0
K R PURAM	130	1	0	1	0	0	0	0
KALKUNTE	120	3	0	2	2	2*	1	2*
GROUP D BIOCON	16	0	0	0	0	0	0	0
MAHILA DAKSHITA SAMITI	117	1	0	0	1	1	0	1
TOTAL	910	19	6	13	7	6	3	8

*1 Patient found to be pap positive last year follow up completed this year.

Cervical Cancer Screening Feedback Analysis



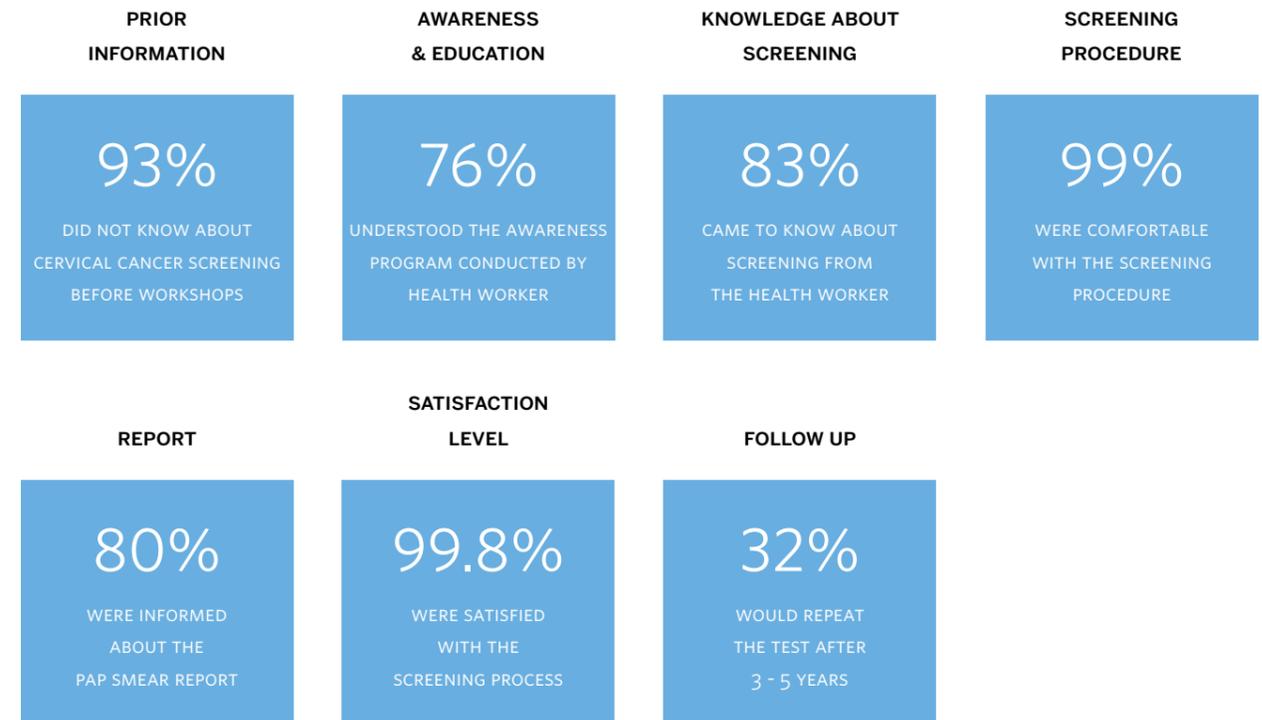
Field Practice Areas:

- 1 Huskur
- 2 Hennagara
- 3 KR Puram

662 Women screened for cervical cancer in our field practice areas were interviewed for feedback.

Area of survey: Peri Urban and Urban

Age group: 21 years and above



This feedback analysis was conducted in the field practice areas - Huskur, Hennagara and K R Puram to assess the pre and post behaviour change of the population screened and whether the procedure of screening was optimal.

Management of Malnutrition

OVERVIEW:

The World Bank estimates, India is one of the highest ranking countries in the world for the number of children suffering from malnutrition. The 2011 Global Hunger Index Report ranked India 15th, among the leading countries with hunger situation. Malnutrition occurs due to multiple factors like food scarcity, unhygienic conditions, lack of sanitation, poverty and poor maternal health conditions. Globally, around one-third of all adult women are underweight. Inadequate care of women and girls, especially during pregnancy, results in low- birth weight babies. Nearly 30 per cent of all new-borns have a low birth weight, making them vulnerable to further malnutrition and disease.

We also ensure that every undernourished child is evaluated by a Paediatrician with documentation of their health status in a Well Baby File to maintain continuum of care. Severely Acute Malnourished (SAM) children undergo monthly health check up by the PHC medical officer which is facilitated by the Foundation. Nutritional supplements are made available at these camps and are dispensed if prescribed by the doctor.

In addition, the caregiver of undernourished children are educated about proper nutrition and best rearing practices for their children.

KEY FEATURES OF THE PROGRAM

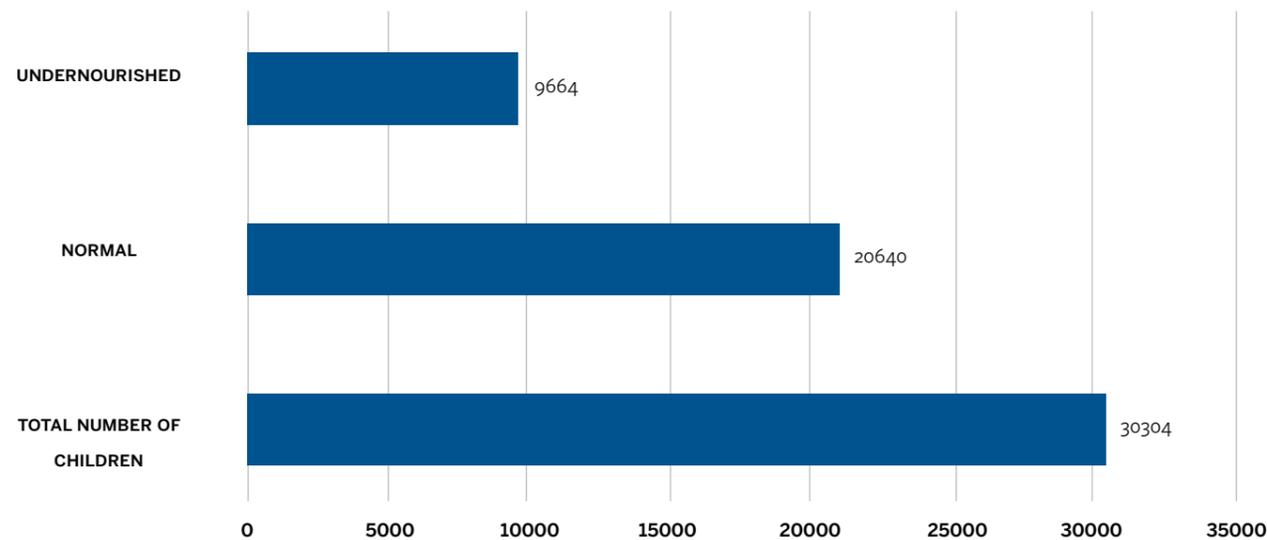
1. Community awareness and participatory approach
2. Improving infrastructure
3. Focus on Oscillators
4. Capacity building and problem solving
5. Routine health check-up

ABOUT THE PROGRAM:

Biocon Foundation, in partnership with the Government of Bagalkot, is monitoring 30,000 children in 389 Anganwadi in Badami Taluk to ensure that every child under 5:

1. Receives wholesome adequate nutrition in the Anganwadi and at home
2. Undergoes regular health check-ups

NUTRITIONAL STATUS



FOCUS ON UNDERNOURISHED CHILDREN BELOW THE AGE OF 5 YEARS



AWARENESS AND EDUCATION FOR CAREGIVERS ON NUTRITIONAL FOOD SUPPLEMENTS



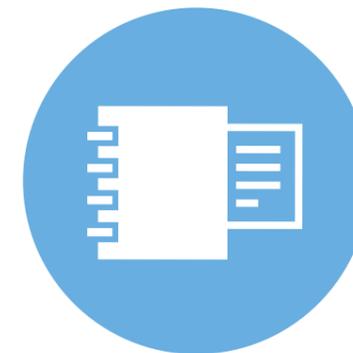
PRIMARY HEALTH CHECK UP OF THE CHILDREN

INTERVENTIONS

PAEDIATRIC CHECK UP BY SPECIALIST



WELL BABY FILE FOR DOCUMENTATION AND CONTINUUM OF CARE

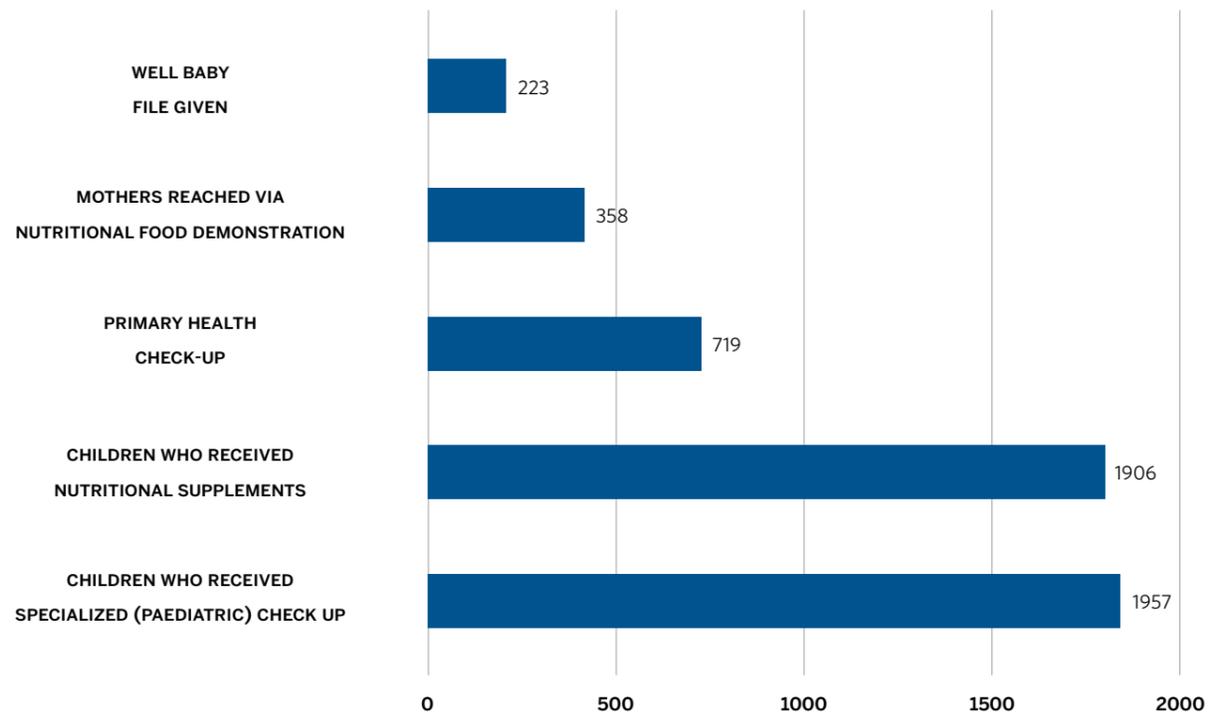


CHILDREN PROVIDED WITH NUTRITIONAL FOOD SUPPLEMENTS





NUTRITIONAL INTERVENTION IN 2014-15



Removing Health Hurdles

THIPPAVA - 4 YEARS



4 year old Thippava from Kutukenkeri village in Badami taluk is back to a healthy and normal life. At a tender age of 1 year 4 months, she was diagnosed as a severely malnourished child with low cognitive skills, breathing problems and low weight of 6.5 kg. Biocon Foundation's intervention helped in improving the health condition of this child. She was diagnosed with a congenital heart condition at the paediatric camp organised by the Foundation. Biocon Foundation facilitated further investigations and referred Thippava to a tertiary heart centre which supported Government insurance schemes, as the family came under the BPL category. Post intervention, the health condition of the child improved with a significant increase in her

weight. Regular growth monitoring by Biocon Foundation indicated that she is now a normal child. There has been a significant improvement in her quality of life in terms of diet, IQ, cognitive skills and hygiene.

Preventive Health Education and Outreach

The preventive health and outreach program provides education and information to improve health seeking behaviour among our communities. The primary objective of the program is to eliminate health disparities among the poor, address social determinants of health, improve access to quality healthcare services through education and disseminate information on health and wellbeing.

COMMUNITY HEALTH WORKERS – THE LAST MILE REACH

Biocon Foundation's preventive health program functions through a network of community health workers associated with Biocon Foundation primary health centres called the Arogya Raksha Yojana (ARY) Clinics that span rural

and urban Karnataka. The health workers are our interface with the community and their focus is on preventive health education, early detection and management of chronic diseases, child and maternal health.

ROLE OF HEALTH EDUCATOR

The primary role is to implement and administer health education interventions. They serve as a health education resource person to bridge the gap between the specialist and the patient. They are also responsible for communicating and advocating health education and information and assessing individual and community needs.

PREVENTIVE HEALTH AWARENESS PROGRAM 2014 - 15

NAME OF THE CLINIC	PERSONAL HYGIENE	ENVIRONMENT HYGIENE	SAFE & CLEAN DRINKING WATER	DIABETES MELLITUS & HYPERTENSION	CERVICAL CANCER	DENGUE & CHIKUNGUNYA	TOTAL
AUSTIN TOWN	1539	70	1514	1916	1453	1412	7904
K R PURAM	110	177	1035	173	976	0	2471
CHIKBALLAPURA	3640	2773	2234	949	3308	2903	15807
HENNAGARA	1840	1584	1863	2004	2425	1634	11350
HUSKUR	423	0	0	913	1121	3	2460
KALKUNTE	2428	568	763	1011	3584	0	8354
KALADGI	2515	0	2624	1088	2272	5718	14217
HALIYAL	750	972	366	0	0	0	2088
TOTAL	13245	6144	10399	8054	15139	11670	64651



Primary Healthcare – Arogya Raksha Yojana Clinics

The Arogya Raksha Yojana (ARY) Clinics established by Biocon Foundation in rural and urban Karnataka reaches out to the under privileged sections of the society with preventive and primary healthcare services.

These clinics are set up with a primary focus of:

1. Improving access to quality healthcare services to the underserved.
2. Eliminating health disparities among poor.
3. Addressing social determinants of health. Education and dissemination of information on health and wellbeing.

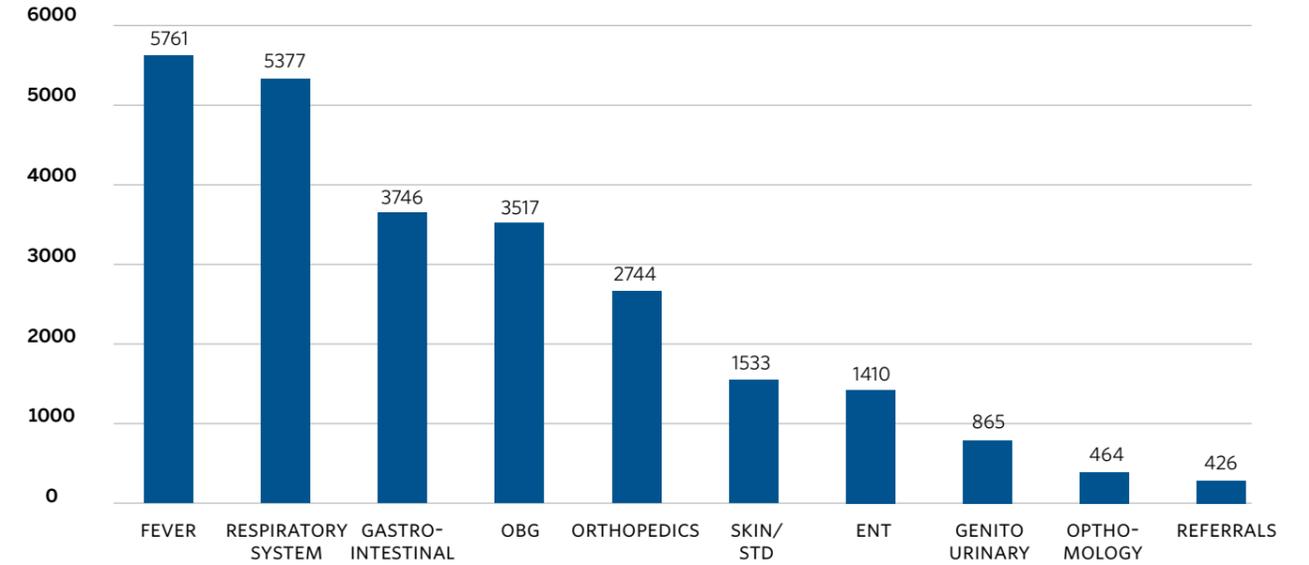
The Arogya Raksha Yojana clinic is a single point see and treat model which has a digitized Clinic management System (CMS), a centralized and confidential portfolio that provides access to patient medical history, lab results and also the drugs inventory in a particular clinic. This helps physicians at the clinics to deliver high standard of patient care, effectively manage case loads and document patient's medical history for further follow ups.

This year we have seen 60,319 patients across all our clinics.

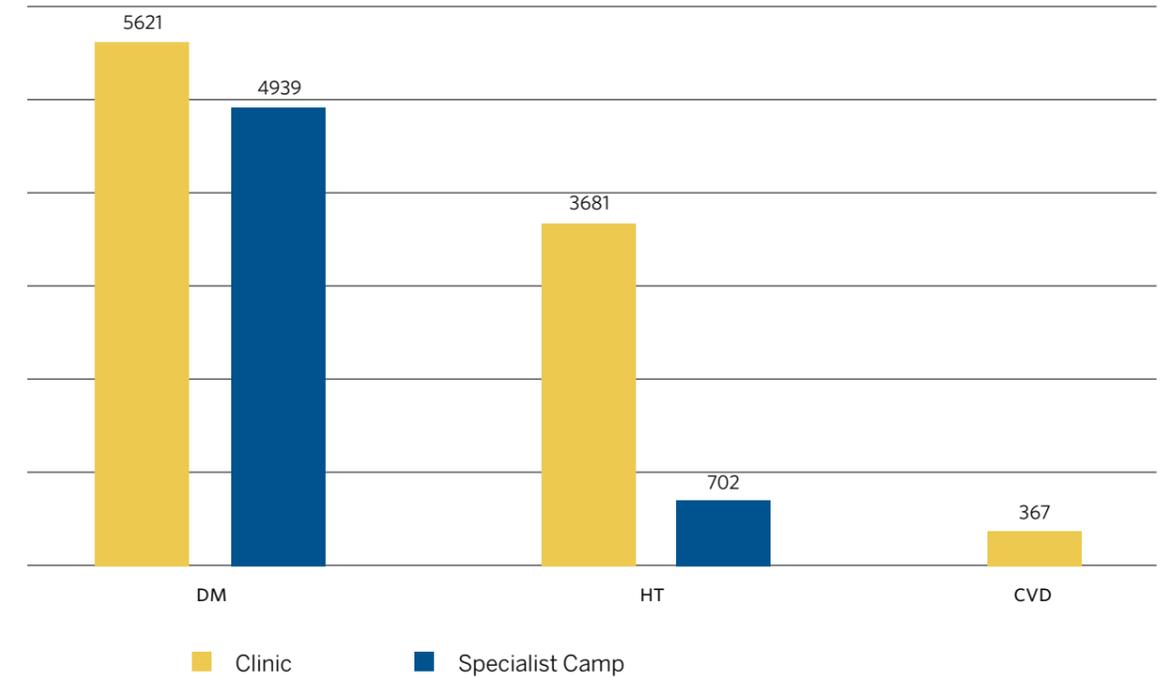
CLINIC STATISTICS: NUMBER OF PATIENTS

CLINICS	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
HUSKUR	7345	9367	10385	11274	12845	13287	14230	13034	11431	8526	103198
CHIKKBALLAPURA		960	2015	2846	3576	6834	8712	12473	12018	9882	49434
KALADGI			759	946	1956	9364	11364	10370	10135	11589	44894
AUSTIN TOWN			635	945	2874	4384	5613	3673	2894	3780	21018
KR PURAM*				645	2164	6359	7352	6731	4182	3030	27433
MANDYA*					102	1067	6146	5833	5601	1142	18749
HENNAGARA						793	4858	6454	8052	12193	20197
KALKUNTE							1654	2678	4993	9086	9325
HALIYAL										1091	1091
OLD CLINICS	3746	4821	1045	1045			2802	3280	744	0	16438
TOTAL	11091	15148	14839	16656	23517	42088	62731	64526	60050	60319	311777

HEALTH CONCERNS ADDRESSED IN THE ARY CLINICS



ASSOCIATED RISK FACTORS AMONG DIABETES PATIENTS



In 2014-15, Biocon Foundation reached out to almost equal number of diabetes patients through ARY clinics and Specialist camps. Whereas, the clinics saw a footfall of 3681 for hypertension cases, only 702 patients received

focussed attention at the specialist camp. This year we would like to focus on hypertensive patients to ensure better follow up. Cardio Vascular Diseases were only treated at the clinic level.

Secondary and Tertiary Healthcare - Health Insurance

OVERVIEW

Health shocks are often the primary cause of impoverishment in India. Almost 80% of health expenditure in India is out-of-pocket. As per WHO report, 32 million Indians go from above poverty to below poverty line due to a health event in a family.

ABOUT THE PROGRAM

Biocon Foundation aims at ensuring access to affordable and quality health services to low income households. The Foundation launched a self-paid program- Arogya Raksha Yojana, Health Micro Insurance in 2005 and till date it has served a significant number of beneficiaries from economically lower segments of the society. Members who enroll for a sum of Rs 236, are covered for surgeries up to Rs 100000 through a network of approved hospitals. 70% of the members enrolled with this scheme for last 7 years. The number of lives covered under the scheme this year is 19,157 with a total premium of 29.23 lakhs.

In order to scale up the enrolment process, the manual membership has been upgraded to mobile phone based enrolment solution. This has considerably reduced errors while transmitting and relative loss of data. Data captured on the mobile phone is transmitted directly to a centralized server.

CLAIMS ANALYSIS 2014-15

NO.OF LIVES	19,157
PREMIUM(RS. LAKHS)	29.23
PREMIUM PER LIFE (RS)	153
NO. OF HOSPITAL	28
NO.OF CLAIMS	257
VALUE OF CLAIMS (RS LAKHS)	15.9
AVG.CLAIM COST (RS.)	18,383
CLAIM RATIO (%)	86.9

CLAIMS BY ILLNESSES

ILLNESS	PROCEDURES (2014-15)	% OF TOTAL
CARDIAC PROCEDURES	3	W.2
OB / GYN	20	7.5
NORMAL DELIVERY	18	7
C - SECTION	26	10.4
HYSTERECTOMY	4	1.5
OPHTHALMOLOGY	32	12.5
MINOR PROCEDURES	154	59.9
TOTAL	257	100



Impact Evaluation

The Centre for Health Market Innovations (CHMI) and Impact Report & 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 measure-

ment tools with standardized definitions recommended by CHMI and IRIS. Specific Performance indicators for our program have been taken from the catalogue of health metrics developed by CHMI & IRIS.

KEY PERFORMANCE INDICATOR

BASELINE SURVEY

HEALTH METRIC NAME	NUMBER
POPULATION SURVEYED	74834
AT RISK FOR ORAL CANCER	14828 (20%)
AT RISK FOR DIABETES AND HYPERTENSION	4856 (6%)

PREVENTIVE HEALTH METRICS

HEALTH METRIC NAME	NUMBER
PERSONAL HYGIENE	13245
ENVIRONMENT HYGIENE	6144
SAFE AND CLEAN DRINKING WATER	10399
DIABETES MELLITUS AND HYPERTENSION	8054
CERVICAL CANCER	15139
DENGUE AND CHIKUNGUNYA	11670

KEY MOTIVATORS COUNSELLED.(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	64651
ESTIMATED REACH OF PREVENTIVE HEALTH EDUCATION	517208

NON-COMMUNICABLE DISEASE

CERVICAL CANCER EDUCATION AND SCREENING

HEALTH METRIC NAME	NUMBER
WOMEN ABOVE 16 YEAR	28063
KEY INFLUENCERS COUNSELLED(>16 YEARS)	12070
WOMEN SCREENED (>21 YEARS)	910
COLPOSCOPIES	19
HPV DNA	6
PAP POSITIVE	13
BIOPSIES	7
PRECANCER	6
CANCER	3
TREATMENT INITIATED	8

ORAL CANCER SCREENING (COMMUNITY SETTING)

HEALTH METRIC NAME	NUMBER
HIGH RISK POPULATION	4894
NUMBER OF PATIENTS SCREENED	2623

PERCENTAGE OF POPULATION SCREENED	54%
BIOPSIES RECOMMENDED	167
BIOPSIES DONE	6
VITAMIN A DISTRIBUTED	189
PRE MALIGNANT LESIONS	118
MALIGNANT LESION	0

ORAL CANCER SCREENING (WORK PLACE SETTING)

HEALTH METRIC NAME	NUMBER
HIGH RISK POPULATION	23440
NUMBER OF PATIENTS SCREENED	5243
PERCENTAGE OF POPULATION SCREENED	22%
BIOPSIES RECOMMENDED	282
BIOPSIES DONE	72
VITAMIN A DISTRIBUTED	310
PRE MALIGNANT LESIONS	72

ORAL CANCER FOLLOW-UP SCREENING

HEALTH METRIC NAME	NUMBER
HIGH RISK POPULATION	1566
POPULATION SCREENED	322
BIOPSIES RECOMMENDED	95
BIOPSIES DONE	0
VITAMIN A DISTRIBUTED	98
PREMALIGNANT LESIONS	139

DIABETES MELLITUS HYPERTENSION

HEALTH METRIC NAME	NUMBER
PATIENTS WITH DIABETES MELLITUS & HYPERTENSION	4144
PATIENTS AND FAMILY MEMBERS EDUCATED	8054
FOOTFALL AT SPECIALIST CLINICS	4996

MALNUTRITION

HEALTH METRIC NAME	NUMBER
ANGANWADIS SUPPORTED	389
TOTAL NUMBER OF CHILDREN SUPPORTED	30304
SAM AND MAM CHILDREN	9664
CHILDREN WHO RECEIVED NUTRITIONAL SUPPLEMENTS	1906
CHILDREN WHO RECEIVED SPECIALIST (PEDIATRIC) CHECKUP	303
PRIMARY HEALTH CHECK-UP	719
WELL-BABY FILES GIVEN	233
MOTHERS REACHED THROUGH NUTRITIONAL FOOD DEMONSTRATION	358

PRIMARY HEALTH METRICS

HEALTH METRIC NAME	NUMBER
INDIVIDUAL CASE FILES REGISTERED ON THE ARY EMR (CLINIC MANAGEMENT SYSTEM)	39657
TOTAL POPULATION LIVING IN ARY CLINIC AREAS OF CARE	74834
PERCENTAGE OF POPULATION USING ARY CLINIC SERVICES	41%
PERCENTAGE OF NEW CASE FILES (2014-2015)	34%
RATIO OF ARY CAREGIVER TO TOTAL POPULATION (THIS METRIC IS INTENDED TO CAPTURE INDIVIDUALS WHO PROVIDE PREVENTIVE, CURATIVE, REHABILITATIVE AND PROMOTIONAL HEALTH SERVICES)	1 : 923



Education

Chinnara Ganitha



Elementary education is the primary foundation for building intellectual capital of a nation. In India primary education focuses largely on access, equity, quality, and governance. Infrastructure in government schools is far better now than 5 years ago, and enrollment is up at 96.7%. But learning levels of young children continue to be a cause for concern. The ASER - 2013 report indicates that only 26.1% of children in Class III can do a subtraction problem, and only 25.6% of children in Class V can solve a subtraction problem.

Keeping these objectives in mind, Biocon Foundation in collaboration with Macmillan Publishing India Limited has developed activity –based practice material covering the most important competencies of mathematics for primary education. These workbooks are designed for students from class I to VII, closely charted with the Directorate of Secondary Research and Training Curriculum.

In 2014, Chinnara Ganitha books have reached 1,24,732 children across 1542 government schools in 8 districts of rural and peri-urban Karnataka

*This year the Foundation introduced new activities for effective learning. These include **Buddhige Thindi** - a comprehensive quiz after every session to recall the concepts learnt, **Thatantha Uttarasi** , test papers at the end served as an excellent revision guide of the basic concepts , **Saval - Javab** , question and answer sessions to make mathematics fun and enjoyable, **Reward Stickers** - a means of encouraging and motivating students to perform well and **Self-Assessment Icons** to self-assess activities.*

As a part of the program, Biocon Foundation organizes teachers training for the government school teachers to help them impart math lessons effectively. This is a capacity building exercise for the teachers in government schools where the books are distributed. It has helped in overall teaching – learning experience in these schools.



NO	DISTRICT	TALUK	NO OF SCHOOLS	BOOKS DISTRIBUTED - CLASS WISE							TOTAL
				I	II	III	IV	V	VI	VII	
1	MANDYA	MANDYA	284	2109	2214	2180	2143	2496	2463	2512	16117
2	BANGALORE RURAL	ANEKAL	257	2762	2977	2643	2778	2712	2347	2491	18710
3	BANGALORE URBAN	IISC	21	465	437	506	441	435	343	330	2957
4	BANGALORE RURAL	HOSKOTE - KALKUNTE	16	134	126	152	115	146	182	203	1058
5	CHIKBALLAPURA	CHIKBALLAPURA	248	1437	1491	1514	1660	1678	1481	1511	10772
6	UTTAR KANNADA	HALIYAL / DANDELI 182 + 3	216	3350	3600	3425	3175	3425	3400	3350	23725
7		JOIDA	181	900	900	950	950	925	925	975	6525
8	KODAGU	COORG	124	1387	1586	1454	1529	1621	1506	1591	10674
9		BADAMI	156	4267	4363	4276	4019	3959	3802	4083	28769
10	BAGALKOT	BILLAGI	20	442	429	445	464	349	445	504	3078
11		KALADGI	19	325	344	372	359	347	318	282	2347
TOTAL			1542	17578	18467	17917	17633	18093	17212	17832	124732

Aata Paata Wadi



Spoken English and digital literacy are essential components of education for every child. Biocon Foundation's Aata Paata Wadi - an after school resource centre at Thithimathi, Kodagu provides a platform for children from economically weaker sections of the society to learn and use English as a language, through creative learning methods. This program has given an opportunity to learn and experience through innovative techniques which are otherwise restricted to private schools.

The primary objective of the program is to lay a good foundation for spoken English. The program also provides access to digital literacy and imparts life skills education to every child attending the sessions. Dr. Lalitha Apachu, our resource person for English has contributed significantly in this program. In 2014, Biocon Foundation initiated interactive digital lessons created by Azim Premji Foundation, engaging the students for effective learning. This year, the communicative English lessons emphasized on phonetics, framing sentences and paragraph writing. The Life skills education included lessons on moral values, rights and duties as a citizen of the country. The ultimate aim of this program is all round development of these children attending the centre.

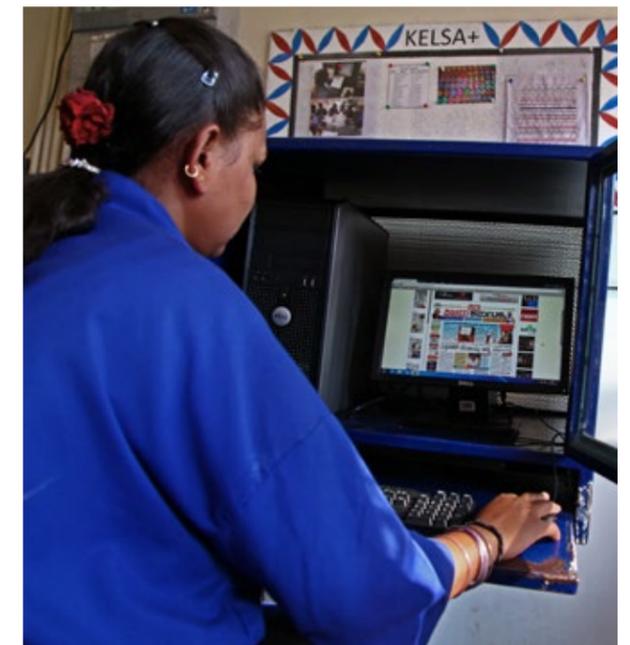
External resource people are called in to run art, pottery, drama, music and other creative workshops. Children have written and dramatized scripts and have learnt and sung popular Kannada songs. The program helps in developing a sense of personal hygiene and the Foundation has recorded significant improvement in the height and weight of the children. Children also learn about personal safety, self-awareness, civic sense, responsibility towards environment.

Experts from Ministry of Human Resources Development and Institute of Social and Economic Change have reviewed the program. An interaction with children attending Aata Paata Wadi revealed their level of knowledge and awareness was more than children who had not attended the centres.

Kelsa +



Kelsa + provides a platform for lower income support staff to learn basic computer skills. The primary objective is to enable casual and contractual labour in the corporate setup to access information technology tools and equip them with basic skill sets. An internet enabled computer is installed where women and men are trained in computer operations, surfing, use of search engines and to open email accounts and read online newspapers. This year 30 women were provided basic computer lessons. The computer literacy program for the Group D women has been expanded to other skill development activities like painting diyas and embroidery, based on the requests from the beneficiaries.





Community Development Program

Biocon Nagar



Biocon Foundation has developed a model township consisting of 411 houses, for families rendered homeless in the 2009 floods. Every house has been provided with solar lights and access to clean drinking water.

A safe and nurturing space has been created for small pre-school children at the Anganwadi. The anganwadi is monitored regularly by Biocon Foundation health workers to ensure that the food is being distributed regularly to all the children, especially the malnourished children, and also to make sure that the school is clean.

Oral Cancer Screening was conducted after a two year gap to follow up lesions detected in the first screening and check community members for new lesions. The health workers have conducted regular workshops on personal hygiene, environmental hygiene, and reproductive health workshops with groups of women.

Project One



Biocon Foundation has always encouraged use of clean drinking water through its public health education sessions in the community. Yet, Arogya Raksha Yojana Clinics- the primary healthcare facility established by Biocon Foundation in Huskur village has witnessed an increased number of Gastro intestinal cases and water borne diseases in the community.

Understanding the growing health concern in the geography and lack of adequate potable water availability, Biocon Foundation constructed Project One- a water purification system in Huskur village. Project one caters to a vast population in the village. The purification system consists of RO and UV technology and also provides chemical and bacterial treatment.

Project One serves purified water to a population of 5000 everyday

The primary objective is to ensure safe drinking water to the beneficiaries of Biocon Foundation. The water is packaged in 20 litre jars and a minimum amount of Rs 2 is charged per jar.

The water purification system serves a population of more than 5000 villagers every day. This initiative has helped Biocon Foundation to ensure Right to Better Health for its communities.

Household Sanitation Facility



Hennagara Gram Panchayat in Anekal Taluk with a population of 30,000 spans across 8 villages namely Hennagara, Hosahalli, Mastenahalli, Kachanayakanahalli, Yarandahalli, Hinaki, Rajapura and Ramakrisnapura. This is a peri urban region in the outskirts of Bangalore city. 70% of the residents have household toilets. But the remaining population lack basic sanitation facilities. Open defecation has largely contaminated the environment and resulted in health hazards among children. Moreover, women find it difficult to go to the field at night due to safety reasons.

Understanding the criticality of the problem, Biocon Foundation has developed sanitation facilities for marginalised sections who are below the poverty line to make a visible difference in their lives. This will improve the living conditions of the villagers and also improve with their knowledge, attitude and practice about proper use of sanitation facilities.

Civic infrastructure

Thirupalya is a large village with a population of 25,000 people. 60% of the residents of Thirupalya are transient population who work in industries around Thirupalya. Due to lack of proper road facility, the villagers face difficulty

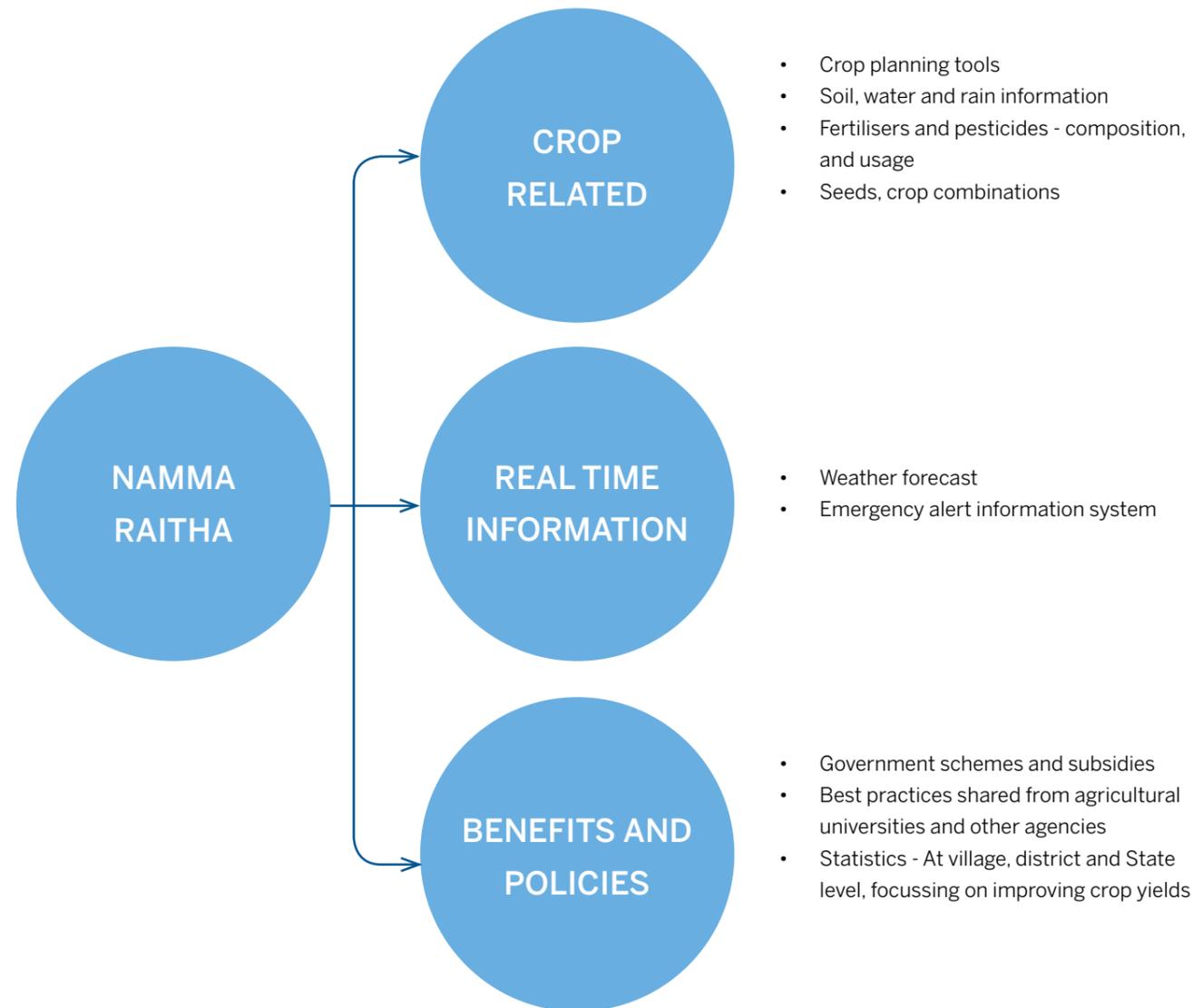
in accessing health and education institutions. This is a challenge in their day to day life. Biocon Foundation proposes to build this road to improve the living conditions of the villagers.

eKisaan - Namma-Raitha

Biocon Foundation in collaboration with eKisaan Foundation is informing, empowering farmers in rural India through a technology based innovation called eKisaan -Namma Raitha. Farmers living in remote areas do not receive regular information that will help them optimize the yield of their land in a cost effective manner.

The eKisaan technology platform provides real time information on issues that are critical to improve yield and quality of crops. It is designed for farmers living in remote areas to access better information and make informed decisions.

This platform provides the following information:



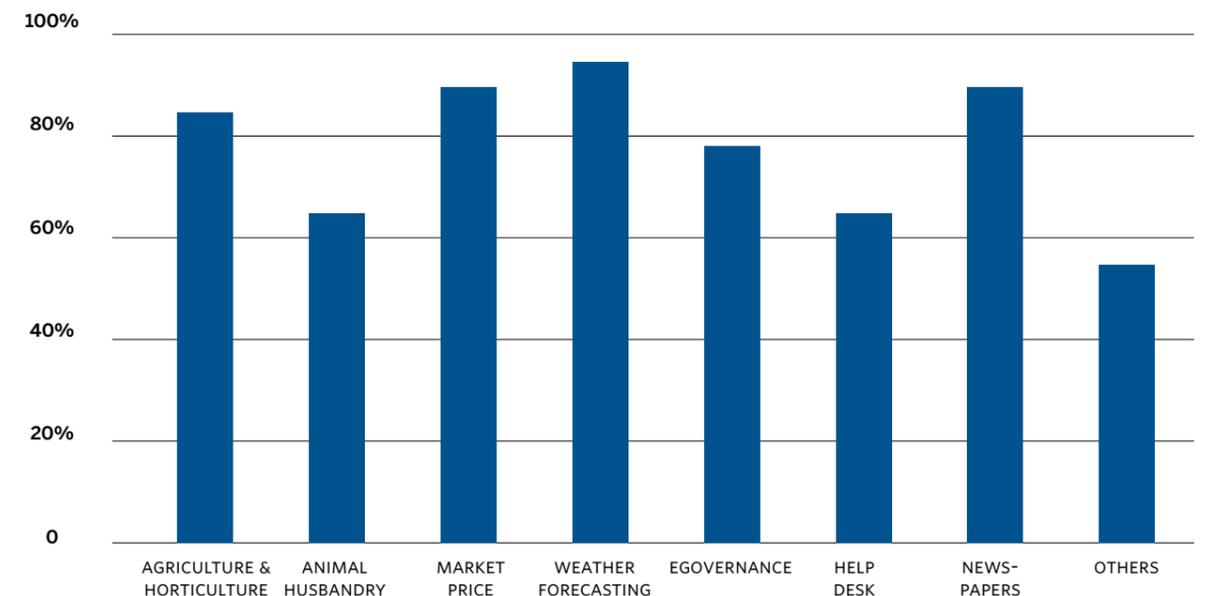
Farmer's receive real time updates on all these important issues. The eKisaan platform is interactive - farmers can post their questions on various aspects of crop cultivation, weather forecasts, market prices and fluctuations. Listed below are few issues they raised:

1. Control measures of Bacterial Blight of Pomegranate.
2. Control measures of Black Rot in Grape.
3. Management aspects of Yellowing in Pigeon pea.
4. Different cropping pattern in Sugarcane.
5. Field Mulching to preserve moisture.
6. Waste Land Management.
7. Increase in Soil Fertility.
8. Effective chemicals to control Sucking Pest in Cotton.

This year, Biocon Foundation sponsored 380 tablets which have been distributed across Bagalkot, Badami and Vijayapur in North Karnataka. The tablets have benefitted 4000 farmers across 380 farmer clubs.

NUMBER OF TABS DISTRIBUTED	380
BAGALKOT	97
BADAMI	149
VIJAYAPUR	130

Each Tab of each Farmer Club is using more than 2GB data per Month which is more than eKisaan Foundation's expectations.



The graph indicates the pattern of information they often seek through the eKisaan platform.

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