

# ANNUAL REPORT | 2016-2017



**STATE HEALTH SYSTEMS RESOURCE CENTRE KERALA (SHSRC-K)**  
THIRUVANANTHAPURAM



SHSRCK





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### **Message**

SHSRC has now become an inevitable part of Department of Health and Family Welfare, Government of Kerala. The role that the institution had played to promote and maintain the quality of health care services in the whole medical field is to be appreciated. The contribution of this institution in transformation of PHCs to FHCs as part of Aardram Mission is commendable. SHSRC has made its presence felt by the quality of its output and effort to integrate with other departments and organizations. The research studies taken up by the institution are relevant and the technical recommendations provided out of the studies are worth enough to make a difference in the health system.

I congratulate team SHSRC for bringing forward this report of activities for the year 2016-2017 and wish them all the best in future endeavors.

**K.K. Shailaja Teacher**







**Dr. Shinu KS**  
Executive Director, SHSRC-K

### Message from the Executive Director-SHSRC-K

I am elated to introduce with pride, the Annual Report of the State Health Systems Resource Centre (SHSRC-K) for the financial year 2016-2017. The centre, over a span of ten years has diligently worked for the betterment of the health care system as a whole and has catapulted itself to becoming one of the most important institutions in the health system of Kerala. This report aims to throw light on the prominent activities of the institution and accomplishments of the same.

The organization is inclined on channeling its resources further towards achieving greater heights in the arena of health care, public health and policy recommendation thereby aiding in building an even sturdier health system in the state.

**Dr. Shinu KS**  
Executive Director, SHSRC-K





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## ABOUT ORGANISATION

State Health Systems Resource Centre, Kerala (SHSRC-K), has been established in 2008-09 as a technical support organisation for the Department of Health & Family Welfare, Government of Kerala. During the initial years it mainly functioned as an ASHA resource centre. In the year 2013-14, the Government of Kerala had accorded sanction to make SHSRC-K an autonomous body under the Department of Health and Family Welfare with an objective to provide technical advice to the government for taking policy decisions and developing strategies for intervention in the area of health and to mobilize technical assistance for specific health system issues. It is formed on the lines of National Health Systems Resource Centre (NHSRC), New Delhi, which is the technical support organisation to National Health Mission, Government of India.

### Mandate of the institution

SHSRC-K focuses on health systems research, health policy & planning, strategy development, innovation and knowledge management. SHSRC-K resolves to contribute and strengthen all efforts directed towards strengthening health systems for ensuring universal access to health services in Kerala.

### Vision

To assist the health system in Kerala to provide equitable, affordable, accessible and quality health care services to all with accountability and responsiveness.

### Mission

- ◆ To undertake research, evaluation and technical assistance in various aspects of health system aimed at improving the state health system.
- ◆ To develop operational guidelines for implementation of various health programs and providing on-going technical support to the State and District level in implementing various health programmes in the state.
- ◆ To facilitate development of appropriate policies and guidelines in health sector for the consideration of the state and central government, based on evidence-based-research.
- ◆ To undertake evaluations and assessment of various health schemes/programmes operational in the state of Kerala and recommend corrective actions.
- ◆ To develop creative and innovative solutions to address health system challenges
- ◆ To publish journals, reports and working papers in various domains of health systems aimed at improving the State health system.



Fig.1: SHSRC-K, Thycaud, Trivandrum



## ORGANOGRAM

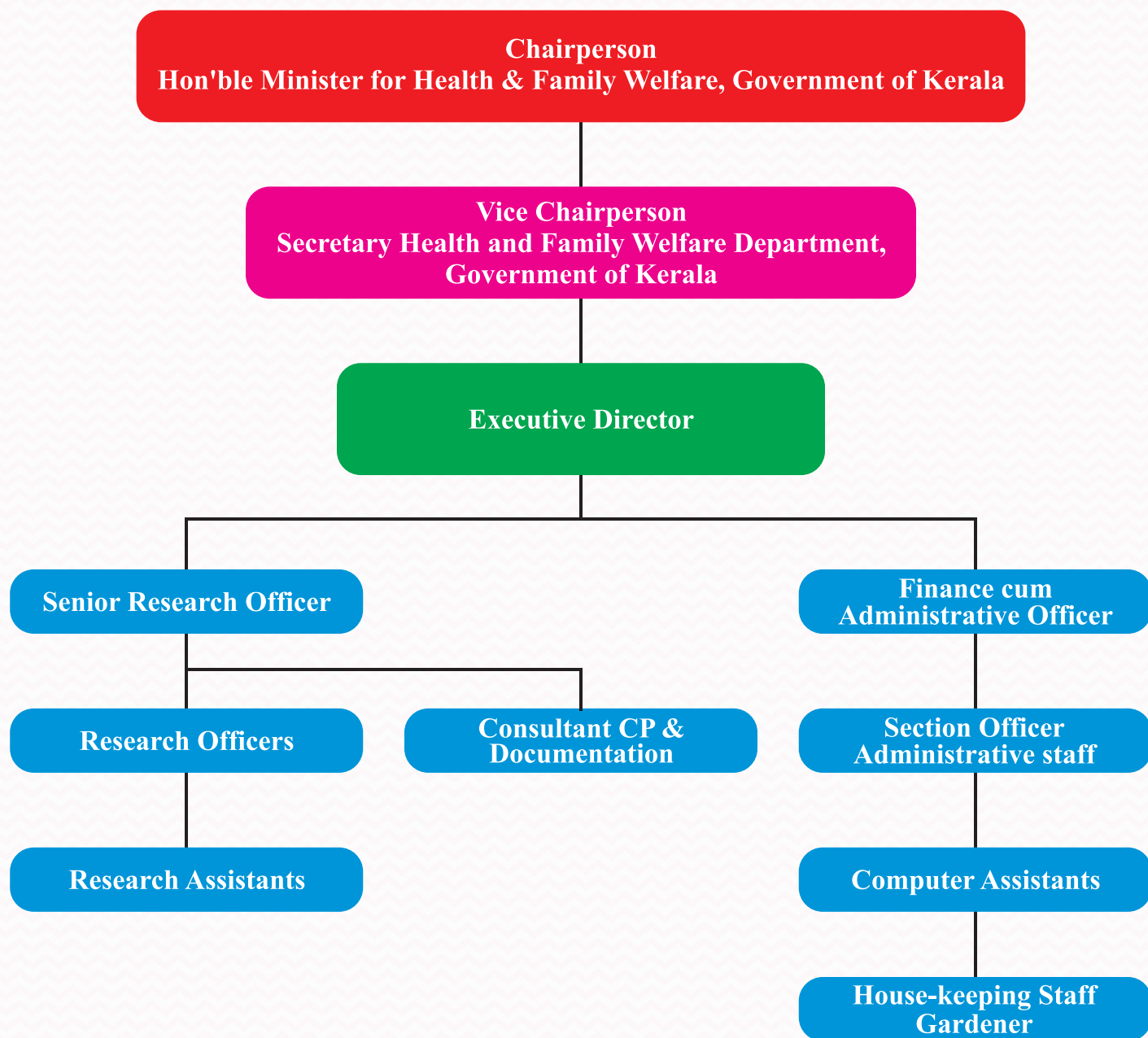


Fig.2: Organogram of SHSRC-K (2016-2017)

## PRIME COMMITTEES

### (a) GOVERNING BODY

SI No	Name and Designation	Status in the Society
1	Hon'ble Minister for Health & Social Welfare, Govt. of Kerala	Chairperson
2	Additional Chief Secretary to Government, Health & Family Welfare Department, Government of Kerala	Vice Chair Person
3	Secretary to Government, Finance Expenditure (or) Nominee from Finance Department	Member
4	Mission Director, National Rural Health Mission, Government of Kerala	Member
5	Director Health Services, Government of Kerala	Member
6	Director, Medical Education, Government of Kerala	Member
7	Director, Indian System of Medicine, Government of Kerala	Member
8	Director, Homoeopathy, Government of Kerala	Member
9	Principal, State Institute of Health & Family Welfare Government of Kerala	Member
10	Executive Director i/c, SHSRC-K	Member Secretary

Table 1: Members of the Governing Body



**(b) Executive Committee**

SI No	Name and Designation	Status in the Society
1	Secretary to Government Health & Family Welfare Department, Thiruvananthapuram	Chair Person
2	State Mission Director, National Health Mission Thiruvananthapuram	Vice Chair Person
3	Director of Health Services, Thiruvananthapuram	Member
4	Director of Medical Education, Thiruvananthapuram	Member
5	Director, ISM, Thiruvananthapuram	Member
6	Additional Director of Health Services (PH), Thiruvananthapuram	Member
7	Principal, Kerala State Institute of Health & Family Welfare Thychaud	Member
8	Executive Director, SHSRC-K	Member Secretary

Table 2: Executive Committee Members

## SHSRC-K: ACTIVITIES AT A GLANCE

### 1. MOVING TOWARDS UNIVERSAL HEALTH COVERAGE IN KERALA



#### Introduction:

Kerala has been recognized as having a better standard of primary health care delivery than in other parts of India. With high morbidity-low mortality profile of the state, there is a view that its focus has remained on maternity and child care services and even in these areas there is scope for improvement. It is generally acknowledged that Non-Communicable Diseases (NCDs) could be better managed in primary care setting and that there is an urgent need to introduce better mental health care into the Primary Health Centre (PHC). In Kerala, there is a uniquely strong link with Local Self Government (LSG) institutions but even this could be further strengthened to benefit the health of the community especially through more effective action to address the wider environmental and social determinants of health in the community.

#### Role of SHSRC-K:

With respect to the High Level Expert Group (HLEG) report in 2012, a strong comprehensive primary care platform was seen critical for the development of a health delivery system to meet the accessibility and affordability dimensions, and to provide a uniformly high standard essential health package for the community in Kerala. In response to this vision, the Government of Kerala therefore decided to pilot a unique approach for Universal Health Coverage (UHC) in the state. The State Health Systems Resource Centre Kerala was appointed as the nodal agency for implementing two main pilot projects on UHC which are:

- ◆ UHC District assessment at Malappuram & Palakkad: in collaboration with PHFI
- ◆ Universal Health Coverage Pilot Projects in Kerala

#### (1.a) ASSESSMENT OF FACILITIES IN DISTRICTS OF MALAPPURAM AND PALAKKAD IN THE CONTEXT OF UNIVERSAL HEALTH COVERAGE

#### Objective:

The objective was to understand the extent to which populations were currently covered by public health care services (primary, secondary & tertiary). It also looked at the resources (finance, human resources, and others) expended and available to provide public health services in the district and the institutional mechanisms in place to undertake Universal Health Coverage.



**Process/Methodology:**

The process was to coordinate, collate and analyse the health situation of these two districts in the state.

A pre-pilot stage, focused on carrying out a situational assessment of the health systems and services in the districts to identify the top twenty five conditions in the district resulting in mortality, morbidity and high out of pocket expenditure, and prepare an Essential Health Package (EHP) consisting of care pathways for said conditions. Following this, intervention options were provided to the State Task Force. Each of the interventions were broken down into activities in detail for implementation at the Taluk Hospitals based on the baseline assessment and feedback. The following activities and budget for the same are based on the baseline report of Universal Health Coverage assessment.

The three main interventions planned for piloting at the districts are the following:

1. Repositioning Taluk hospitals as Centres of Excellence with continuum of care from PHC/CHCs
2. Strengthening district level Health Management Information Systems
3. Conduct of focused implementation research studies to facilitate UHC pilots

### **(1.b) UNIVERSAL HEALTH COVERAGE IN KERALA THROUGH A PRIMARY CARE PILOT PROJECT**

**Introduction:**

The importance of strengthening the primary care services by improving human resources, infrastructure and role of health

workers in the community is highlighted in the Twelfth Five Year Plan of Kerala. The concept of “Universal Health Coverage” was introduced in the plan which aims at providing high quality services, increasing accountability in healthcare delivery, and lowering out of pocket expenses on health.

The state attention has remained on maternity and child care services even with a high morbidity rate due to noncommunicable diseases. The state has come to identify that NCDs could be curbed at the primary care level and the judicious inclusion of mental health care in PHCs would be path breaking. The gap in the health needs of the population and the services offered, point towards a necessity to reshape the health system. Primary care being an important component of Universal Health Coverage, it was decided to carry out interventions in this area. A pilot project based on the concept of universal health was initiated to align primary care with growing healthcare needs related to non-communicable diseases.

**Strategies:**

- ◆ Capacity building of the staff
- ◆ Strengthening of convergence with LSG and other departments
- ◆ Addressing social determinants of health
- ◆ Developing an electronic platform for medical records

**Methodology:**

The proposal was to improve the primary care services by implementing a system similar to general practitioners of National Health Service in the United



Kingdom. Experts from the University of East London were roped in to avail technical inputs to develop the project, training protocols, and for the design of software. The project was piloted in three selected facilities in Trivandrum district. The model was based on a bottom up approach, focusing on strengthening primary care centres by expanding the services offered, and addressing the needs of the catchment population.

State Health System Resource Centre (SHSRC) was proposed as the implementer and nodal agency with funding from National Rural Health Mission (NRHM) for the conduct of the programme. The Community Health Center in Venpakal and the Primary Health Centers in Kallikad and Chemmaruthy were selected as the pilot project sites. The government convened a core committee of primary care experts headed by Secretary to the government and included representatives of health services and medical education departments. A team of doctors, paramedics, accredited social health activists (ASHAs), auxiliary nurse midwives (ANMs), and local self government representatives worked together to expand the project and tailor it to the needs of Kerala. The core committee supported the project with technical and administrative inputs.

Involvement of the Directorate of Health Services (DHS) and National Health Mission (NHM) was crucial for the smooth functioning and monitoring of the project which was operationalised by frequent reporting and consultatory meetings. National Health System Resource Centre (NHSRC) was identified as an important knowledge partner to guide the study and

disseminate the findings.

### Process:

The Universal Health Coverage Primary Healthcare Pilot Project began in December 2012 in the three proposed sites. Several changes were introduced in the health centres including modification of infrastructure to ensure patient friendly environments, introduction of pre-assessment areas and redesigning patient flow. Other changes include introduction of information technology to register patients electronically; provision of laboratory and diagnostic services. Good practices like task shifting were also introduced. Training of staff to register patients, strengthening the skills of Medical Officers and Nurses to use evidence based guidelines for six priority diseases (diabetes mellitus, hypertension, antenatal care, fever management, mild to moderate depression, and immunization), and referral pathways were also done. Measures were taken to improve community involvement by involving local self government. The staffs were also given training to improve soft skills to bring about changes in the attitude.

The primary objective of the project focused on ensuring equitable access to health care services by transforming the Primary care platform to affordable, accountable and appropriate. The state aimed to ensure availability of preventive, promotive and curative services with quality at the public primary care institutions closest to the community. Coordination and integration with other departments was necessary to address the health needs of the population.





**Components of the project:**

- ◆ Development of basic patient record
- ◆ Training for the staff
- ◆ Identified top 20 disease conditions which account for 80% of the community morbidity at primary care level.
- ◆ Improved infrastructure
- ◆ Developed evidence-based guidelines (GO approved)
- ◆ Developed training resources to build community and LSG institutional capacity Impact assessment

**Developed evidence-based protocols:**

- ◆ Diabetes mellitus (modified and adapted from NCD division, DHS Kerala)
- ◆ Protocol for Diabetic Foot care pathway
- ◆ Annual Diabetic Foot care Examination Form
- ◆ Protocol for Hypertension (modified and adapted from NCD division DHS, Kerala)
- ◆ Protocol for Management of Mild to Moderate Depression
- ◆ Protocol for Antenatal care
- ◆ Immunization schedule (adapted to Kerala schedule)

- ◆ Protocol for Fever/Short Febrile illness (adapted from DHS Kerala)

- ◆ Essential PHC equipment List

**Other features:**

UHC Software captured morbidity profile of the community along with the proportion of the community availing outpatient services within the catchment population at pilot institutions. This helped in early identification of communicable disease threats or outbreaks and turned useful in early detection of NCDs for adults above 30 years in pre-check areas of primary care centres. This helped the medical officers and primary care staff to deliver quality care with more efficiency.

SHSRC organized refresher training to the staff of pilot sites. Workshops on primary care and community engagement were arranged for the staff of pilot facilities and provided certificates as part of the capacity building initiative. SHSRC-K recommended the installation of power back up in these facilities for delivering clean energy and self-sustainability. As an implementing agency SHSRC-K used data sets to monitor the performance of the project by developing indicators. SHSRC-K conducted data analysis workshop sessions to the medical officer and one more selected member from each facility for proper utilization of electronic data. The project provided first hand experience of using electronic data capturing and the challenges associated with it. The IT component of the project can be termed as the prototype of the much awaited E-health project of Kerala.



### Role of SHSRC:

1. Identified the Institutions
2. Conducted need assessment study
  - (i) Documented the requirement of extra Human Resources
  - (ii) Documented the need of infrastructure upgradation
  - (iii) Documented power requirement need for backup resources available via LSG Funds
3. Trainings conducted on:
  - (i) Concept of Universal Health Coverage
  - (ii) Software training on UHC software
  - (iii) Training on the disease protocols developed
  - (iv) Training on infection control practices, biomedical waste disposal, nutrition, team building and leadership
4. Software for the project was



Fig.3: Training on UHC



Fig.4: One of the pilot centres :  
PHC Chemmaruthy

### Challenges

- Shifting of trained staff during annual general transfer
- Unreliable net connection
- Unexpected power failures
- Lack of confidence among the staff
- Lack of resources
- Lack of continued leadership and supervision

### Impact:

Remarkable changes were observed in all the three pilot facilities. There was a change in the health seeking behaviour of the patients as per the observation of the staff. From patient's point of view the trust in the institution and staff improved. Patient friendly transformation of the environment and availability of the drugs and lab facilities could be the reasons for the change. The quality of the primary care facility at Chemmaruthy improved enough to meet the Kerala Accreditation Standards for Hospitals.



**Conclusion:**

Universal Health Coverage initiative has helped to realize the potential of primary care institutions in addressing the health needs of rural population. This improved the commitment and attitude of the staff to provide services according to the need of the population. This could also improve the confidence of public to avail services from public health care institutions. This project has helped policy makers and field workers to realize the potential of primary care institutions to achieve Universal Health Coverage in a state like Kerala, which has led to a decision to revamp all primary care institutions as part of Aardram Mission.

**Continuation of the project:**

The Universal Health Coverage Primary Healthcare Pilot Project started in December 2012 and ended in December 2014. SHSRC-K continued the support for extra human resources recruited as part of Universal Health Coverage project in Community Health Center, Venpakal, Primary Health Center, Kallikad and Primary Health Center, Chemmaruthy till the end of financial year 2016-17 and monitored the progress without direct supervision.



## 2. SUSTAINABLE DEVELOPMENT GOALS (SDG)



### Introduction:

At the Sustainable Development Summit on 25 September 2015, UN Member States adopted the 2030 Agenda for Sustainable Development, which includes a set of 17 Sustainable Development Goals (SDGs) to end poverty, fight inequality and injustice, and tackle climate change by 2030. India, one of the 193 countries that have signed the declaration has national level goals to be achieved by 2030.

### SDG & Kerala:

State of Kerala which has better health indices when compared to other states of India determined to develop short term goals for 2020 and long term goals for 2030 aligned with the national and international goals. In addition to the targets listed in the UN documents, Kerala has included targets in the domains like Disability, Dental,

Ophthalmic and Palliative care as they were considered important by the state. The key strategies and activities to achieve these

### The activities in the process of developing the SDG goals included the following:

Twenty two expert groups consisting of Public Health experts, specialists in the concerned area and Medical officers from Primary Health Centres were formed for developing state specific targets to suit the state's current epidemiological status and capacity.

### Workshop for developing state specific SDG goals:

Workshop for developing state specific SDG goals was conducted in August 2016 to develop achievable targets for the year 2020 and 2030, its strategies, activities and evaluation indicators based on



the available literature on the current situation. Additional Chief Secretary Sri Rajeev Sadanandan facilitated the meeting and directed the participants to consider the following while developing the proposal:



Fig.5: Hon'ble Health Minister Addressing the dignitaries

- ◆ Separate and list out the interventions to address non-medical determinants of health
- ◆ List out trainings to be imparted to capacitate the primary health providers as well as other players within the system and outside
- ◆ Curriculum preparation for the training
- ◆ Integration of AYUSH, Yoga and physical exercise by Ayurveda dept. and Counselling by the Homeopathic Department.

**Workshop for developing the proposals for state specific goals for 2020 and 2030 on August 2016:**

The objective of this workshop was to develop proposals for each state specific

SDG for 2020 and 2030, including the strategies and activities. The Additional Chief Secretary addressed the participants and asked to come up with practical strategies and activities to attain the targets laid down. A template were introduced based on which each group were supposed to develop the proposal. Focus was on developing the targets, strategies, activities and the evaluation indicators specific to each domain. The participants were directed on how to go about it and were detailed on the process.

**Consultation meeting with District level Officers and State Resource Persons on SDG in August 2016:**

A consultative meeting was organized with the District Surveillance Officers, Principals of both Govt. and Private Medical Colleges and State Resource Persons at the conference Hall, SHSRC-K, Thiruvananthapuram to gather inputs on the goals, strategies and activities devised by the expert groups for each domain. The meeting was inaugurated by Hon'ble Minister for Health and Family Welfare, Smt. K.K Shylaja Teacher and presided over by Sri. Rajeev Sadanandan IAS, Additional Chief Secretary to Department of Health and Family Welfare. The route map of the inception of SDG was narrated and the targets set by the expert team on each domain for Kerala by 2020 and 2030 against the SDG targets were presented. The discussion was mainly on the areas like MMR, Child Health, TB, Malaria,

NTD, NCD including Mental Health, RSH, RTA, Dental, and Eye Health. Social determinants of health; water, sanitation, social justice and inclusiveness were also discussed.

### Vetting workshops:

Several sittings were organised at

SHSRC-K with different expert groups to complete the write up before they could actually deliver the final product. Vetting workshops were conducted with a panel of experts to go through the document and edit and finalise the proposals. An editorial team later edited the final documents to make it uniform and printable.

Table 3: State specific targets for 2030 & 2020 in line with SDGs

Sl. No	2030	2020
SDG Target 1: Maternal Mortality Ratio	By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births	To reduce the Maternal Mortality Ratio from 66 to 30 per 100,000 live births by 2020 and to 20 per 100 live births by 2030.
SDG Target 2: IMR,NMR, U5MR	By 2030 end preventable deaths of newborns and children under 5 years of age, reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births	To reduce IMR from 12 per 1000 live births to 8 per 1000 live births by 2020 i.e. 2/3rd reduction To reduce NMR from 7 to 5 by 2020 To reduce under 5 mortality (U5MR) from 14 to 9 per 1000 live births
SDG Target 3: Communicable Diseases	1. Hepatitis	To ensure 95 % new born vaccination coverage for Hep B To identify 100% high risk groups of Hep B To provide drug therapy to >50% confirmed cases of Hepatitis C cases
	2. Leprosy	Reduce the Prevalence rate from 0.169 to < 0.1 at all levels District, Block and Panchayath.



		<p>Child cases of leprosy from 1.17/million to &lt; 0.6/million Rate of child case with zero disability to be sustained (SDG target).</p> <p>Grade 2 deformity from 1.2/million to &lt; 1/million (SDG target)</p>
	3. Lymphatic Filariasis	<p>Reducing Mf prevalence below 1% in all districts by 2020</p> <p>Ensuring availability of recommended minimum package of care for all patients with Lymphoedema, Acute attack and Hydrocele by 2020</p>
	4. Malaria	<p>To bring down the incidence of Indigenous Malaria to zero in all 14 districts by 2020</p> <p>To prevent the transition of imported Malaria cases to Indigenous Malaria cases in Kerala by 2020</p> <p>Reduce mortality by 35% by 2020 and by 90% by 2030</p>
	5. Tuberculosis	<p>Reduce incidence by 20% by 2020 and by 80% by 2030</p> <p>Zero catastrophic costs due to TB</p>
	6. HIV/AIDS	<p>All eligible persons are put and maintained on Antiretroviral Treatment by 2020</p> <p>No incidence of HIV infection by 2025</p>
	7. Kala Azar	<p>Elimination of Kala-Azar (&lt;1/10,000 block population) from Kerala by 2020</p>

SDG Target 4: Non-Communicable Diseases	By 2030, reduce by one-third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well being	<p>Halt increase in prevalence of raised Blood Pressure (HT) 30 - 40 % among above 30 years of age</p> <p>Halt the rise in prevalence of Diabetes (DM) 18 – 20 % prevalence above 30 years</p> <p>To maintain the present prevalence of obesity and diabetes in the general population</p> <p>30% relative reduction in current tobacco use</p> <p>20% relative hike in people consuming 5 servings of fruits &amp; vegetables</p> <p>10% relative reduction in mean intake of salt</p> <p>50% increase in drug therapy to prevent heart attacks and stroke</p> <p>5% relative reduction from current alcohol use</p> <p>Early detection of 60% high risk individuals</p> <p>10% reduction in insufficient physical activity</p> <p>Availability of essential NCD medicines &amp; basic technologies to treat NCDs in at least 80% of public facilities</p> <p>50% reduction in household use of solid fuels to combat COPD</p>
	2.Cancer	To reduce smoking in males to $\leq 20\%$ , and tobacco chewing by 5% among males and females



		<p>To diagnose 50% of oral, breast and cervical cancers in localized stages (Stages I and II for oral cancer; stages I and IIA for breast and cervix cancers)</p> <p>To increase the compliance to prescribed course of treatment from 76% to 90% .(for first year following the date of diagnosis)</p> <p>To 85% of catastrophic health expenditure on cancer treatment are covered by government funded or private pre-payment schemes.</p>
	3. Mental Health	<p>To reduce the emotional and behavioural problems in school children from 30% to &lt;10%</p> <p>To reduce the suicide rate from 24.9/- per lakh(2014) to &lt;16 per lakh</p> <p>To reduce morbidity due to depression from 5.8% for men and 9.5% for women to &lt;3% in men and &lt;5% in women</p> <p>To achieve 50% of rehabilitation for mental patients in remission</p> <p>To expand community Mental health program to block and Panchayat level</p>
	4. Alcohol/ Substance Abuse	<p>To reduce the per capita consumption of alcohol by 5%</p> <p>To reduce percentage of people with harmful alcohol use by 10% and &lt; 10% use in young adults (&lt;25 yrs)</p> <p>To double the number of enrolment to oral substitution therapy centres to treat drug abuse</p> <p>To double the number of cases registered against illicit trafficking and use of narcotic drugs</p>

SDG Target 5: Road Traffic Accidents	By 2030, halve the number of global deaths and injuries from road traffic accidents	To reduce mortality and morbidity due to RTA and other injuries by 50% of the current incidence by 2020
SDG Target 6: Reproductive Sexual Health	By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes	<p>To reduce the percentage of adolescent pregnancies from 2.8% to zero by 2020</p> <p>To reduce the low birth weight from 11.6% to 9%</p> <p>To reduce the unmet need of spacing from 11.6 % to 8%</p> <p>To reduce primary LSCS from 23% to 20%</p> <p>To start “Well women clinics for geriatric problems among women</p> <p>To establish One Stop Crisis Cell with access to all services (medical, legal, rehabilitative) to address gender issues and violence in all major health institutions in the State</p> <p>To screen 60% of post-menopausal woman for prolapse uterus and offer 80% coverage to surgical care for the detected</p>
SDG Target 7: Universal Health Coverage	Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.	<p>Ensure that 80% of the population is covered under a pre-paid scheme for financial protection by 2020</p> <p>By 2020 the percentage of persons availing health care from Government Hospitals is increased from 34% to 50%</p> <p>Ensuring availability of essential medicines and diagnostics in all public health facilities.</p>



SDG Target 8:	Dental Health	<p>To reduce prevalence of dental caries among 6-12 year old children by 10 % and to retain the mean DMFT at <math>\leq 3</math></p> <p>To reduce prevalence of periodontal disease among 35-44 year olds by 10 %</p>
	Eye Health	<p>To reduce the prevalence of blindness due to cataract, uncorrected refractive errors, trauma and diabetic retinopathy by 25 %.</p> <p>CBPC Units in 100% Panchayath of Kerala conducting regular home care program, for all those who are needy</p>
	Palliative Care	<p>Integrated care for palliative, geriatric and mentally ill in 100% of Panchayath.</p> <p>Family level empowerment training for care conducted at ward level in at least 70% of Panchayaths of Kerala.</p> <p>Establishment of PAL clinics in 100% Community Health Centres of Kerala</p> <p>Doctor with morphine license available at 100% Taluk hospitals.</p> <p>Physiotherapy services for COPD, Stroke and neuromuscular conditions available at 100% CHCs</p> <p>Rehabilitation for paraplegia and mentally ill at Block level in 75% Blocks.</p> <p>Provision for temporary hospitalization of palliative care patients in every CHC with doctors &amp; nurses specialized in palliative care services to support the community based palliative care</p>

## Other meetings and workshops in connection with SDG during the year 2016-2017:

### Consultative workshop on technical support for Kerala to achieve long and short term goals in connection with SDG

A consultative workshop was conducted on January 2017 at SHSRC-K, with group discussions on identification of the areas where technical support was needed to achieve long and short term goals for the state of Kerala in connection with SDG. Sri Rajeev Sadanandan IAS, ACS (Health & family Welfare), Dr. Ramesh (DHS, Kerala), Dr. Shinu KS, (Executive Director, SHSRC-K), State level officials from DHS and officials from Country office of WHO participated in the discussion.



Fig.6: Hon'ble Health Minister KK Shailaja at the SDG workshop

The areas identified for technical collaboration are given below:

#### Training

- ◆ Training need assessment
- ◆ Developing modules for different staff at different levels

- ◆ Treatment & Referral pathway- Linkages – back referral

#### Monitoring and evaluation

##### (i) Assessing the need

- ◆ Human Resource
- ◆ Medicine
- ◆ Infrastructure
- ◆ Facilities
- ◆ Resources
- ◆ Technologies
- ◆ Laboratory services
- ◆ Point of care diagnosis

##### (ii) Processes

- ◆ Developing guideline
- ◆ How to operationalize
- ◆ Information flow
- ◆ Continuity and sustainability
- ◆ Policy formation for NCD-intersectoral mechanism
- ◆ Life cycle approach, trigger points-decision processes
- ◆ Risk management tool

##### (iii) Cancer

- ◆ Risk factor mitigation, counselling manuals
- ◆ Behavior change intervention
- ◆ Family
- ◆ Community
- ◆ Workplace



- ◆ School based programmes
- ◆ Screening policy
- ◆ Training the health workers

**(iv) SWAAS**

- ◆ Validating the activity
- ◆ Outcome evaluation

**(v) Aswaasam**

- ◆ Validation
- ◆ Outcome evaluation

**(vi) Health Financing**

- ◆ Quality indicators
- ◆ Costing

**(vii) IT systems – link with e-Health**

- ◆ Claims data
- ◆ Developing standard operational protocol



### 3. COMPREHENSIVE PRIMARY HEALTH CARE

#### Introduction & Background:

The targets under SDGs have been tweaked to suit the State's needs and priorities in the health sector and while the SDGs have set 2030 as the time frame, Kerala will primarily focus on what it can achieve in the next five years. In the 13th Five Year Plan of the state, the Government has given priority to strengthen the Comprehensive Primary Health Care System to ensure that quality health care is provided at the doorstep thus reducing the out of pocket expenditure of the people. The holistic approach of CPHC which includes Preventive, Promotive, Curative, Rehabilitative and Palliative care will help in prevention, early diagnosis and appropriate treatment of diseases at low and affordable cost.

Strengthening of Primary Health Centres is an important component of the new Health initiative 'Aardram Mission' launched by the Government of Kerala. Improving Primary care requires a two pronged approach:

- Improving quality of clinical services and health care delivery provided through PHCs thereby reducing the out of pocket expenditure
- Addressing the issues of social determinants of health such as sanitation, safe drinking water, and developing project ideas based on the social determinants of health.

#### Role of SHSRC-K:

SHSRC was appointed as the nodal agency for implementation of Comprehensive Primary Health Care with

support from experts from Medical colleges and Health department. A meeting was held in early July 2016 to discuss the implementation of Comprehensive Primary Health Care in the state with Primary Health Centers as its focal point as mentioned in the Governors address to the Legislative Assembly in June 2016. Based on this a two day workshop of health activists including Suchithwa Mission, Jalandidhi, NGOs- for preparing project proposal for LSG focusing on the social determinants of health was conducted at SHSRC-K in July 2016. A state level workshop was conducted in August 2016 which was presided over by the Additional Chief Secretary for Health- Sri Rajeev Sadanandan IAS and inaugurated by the Hon'ble Minister for Health and Family Welfare Smt KK Shailaja. Around 62 volunteers from different departments were invited to provide inputs for developing and implementing LSG projects prioritizing social determinants of health. A handbook on "Project ideas to address Social Determinants of Health" was developed based on the inputs obtained in this workshop. The project ideas mentioned in the handbook aimed at enabling health workers and LSG members to prepare projects for the year 2016.

#### The main aspects covered were:

- ◆ Hygiene and waste management
- ◆ Clean drinking water
- ◆ Healthy habits
- ◆ Healthy work culture
- ◆ Yoga programme
- ◆ Welfare for migrant workers
- ◆ Social security
- ◆ Gender
- ◆ Food- vegetables & fruits
- ◆ Environmental health
- ◆ Public Health





Medical Officers and field staff from Health system, elected representatives and officials from LSGD and officials from other allied departments were given training on developing projects based on social

determinants of health and its implementation. Training was conducted in all districts during August 2016. Around 2405 participants were trained in the state.

Table 4: Information of participants in trainings on CPHC

Comprehensive Primary Health Care							
Sl. No	Name of district	Participants					
		Doctors	LSGD Members	Health Staff	Other Dept. Officials	Others	Total
1	Alappuzha	55	68	75	0	0	198
2	Ernakulam	55	116	107	3	14	294
3	Idukki	37	60	42	0	2	141
4	Kollam	52	11	87	0	5	155
5	Kannur	67	141	6	0	0	214
6	Kasargod	36	39	8	0	0	83
7	Kottayam	13	73	27	0	0	113
8	Kozhikode	48	53	49	2	4	156
9	Malappuram	25	53	75	1	0	154
10	Palakkad	51	108	87	1	2	249
11	Pathanamthitta	45	43	13	1	4	106
12	Thrissur	63	60	86	0	0	209
13	Thiruvananthapuram	80	56	99	0	0	235
14	Wayanad	17	32	42	4	3	98
<b>Total</b>		<b>643</b>	<b>913</b>	<b>803</b>	<b>12</b>	<b>34</b>	<b>2405</b>



Fig.7 & 8- Training on CPHC for core group members





Fig.9-CPHC District level workshop at Kasargod district in Kerala



Fig.10—Dr.Shinu KS-Executive Director-SHSRC-K: during a CPHC training session

### Comprehensive Primary Health Care: Preparation of handbooks and training

Since Independence, Indian economy is being planned through Five Year Plans developed, executed and monitored by the Planning Commission earlier and Niti Ayog at present. The 73<sup>rd</sup> and 74<sup>th</sup> amendments of the constitution enabled the Panchayats for decentralised planning. In Kerala where the decentralisation process is quite ahead of other states, the LSGs are given the authority for supervising the activities of different institutions that have been transferred under it. To address the felt needs of the local community, the local self governments are responsible for implementing projects through various departments.

### Translating SDG goals to Panchayat level

Even though the state of Kerala on an average enjoys better health indices, certain

groups of population suffer poor health status below the state average. State specific programmes may not be sufficient to address the unique issues of these groups that pull them behind. Planning at the grass root level is always vital in developing targeted and customised interventions that are sensitive and relevant to the needs of the concerned population. It is very important to translate the SDG goals to Panchayat level and devise strategies and activities to achieve them. Hence two days training was organised to orient the Panchayat Presidents, Health Standing Committee Chairpersons, Medical officers, HIs, PHNs from all Grama Panchayats on SDG goals and how to translate them to Panchayat level goals.

### Developing handbooks for project preparation

Various consultative meetings were conducted in 2016 for developing



handbooks for project preparation in connection with the 13<sup>th</sup> Five Year Plan. Public Health experts within the health system and Medical Colleges, Medical Officers and field staff who are proficient in project preparation were involved in the process. Then documents were reviewed and vetted by experts in this field. Handbooks which would be useful to prepare projects for Grama, Block and Jilla Panchayats were developed separately as they differ in type and the way of implementation. These handbooks were designed to impart skills for need based project preparation to achieve the State level SDG goals. They dealt with the process of developing Health Status Report for localities/regions at Panchayath, Municipality and Corporation levels and how to develop and submit projects with proper inter-sectoral coordination, the data sources available for developing HSR, guidelines for developing projects and its implementation. Monitoring, social auditing etc are other significant areas that were included in these handbooks.

### Health Status Report (HSR)

Health Status Report is a document prepared by the PHC team with the available data of the Panchayat which aids as a base document for planning the activities annually. Data sources from all concerned departments-ICDS, birth-death registers, MNREGS, animal husbandry dept agricultural dept, AYUSH, census data, water authority, school health nurses register etc can be used for this. Primary data if required can be collected with the help of health volunteers like Kudumbasree & ASHA.

It is ascertained as the cardinal

requisite for health and health related project formulation in an area, for assessing the current health issues in the state and for knowing the profundity of future health events. A Health Status Report would comprise of the baseline information regarding socio demographic aspects of the beneficiaries, prevalence of CDs & NCDs and information of high risk behaviour groups, nutritional status, death rate, IMR, MMR, infrastructural details plus service delivery issues at Primary Health Centres and sub centres, status of social determinants of health such as availability of drinking water and sanitation in the region.

### Development of Projects

Issues pertaining to an area have to be identified on the basis of HSR and prioritized in consensus with LSG authorities. The medical and social determinants of a problem have to be identified and addressed through the projects developed. It is the responsibility of the Medical Officer to orient the Panchayat to persuade other departments to implement the projects addressing social determinants of health concerning that community.

Preparation of the project is crucial and has to be done in consensus with the Panchayat. There should be a well written document specifying the objective, methodology, expected outcome and detailed budgeting. The objective should be SMART - Specific, Measurable, Achievable, Relevant and Time bound. Projects developed in this manner have to be vetted by the Panchayat level resource team including the experts like academicians, Block Medical Officer and later by the technical support unit from district level.





**Activities:**

SHSRC-K developed a training module for facilitating the Local Self Government to chalk out the Five Year Plan preparation through a series of consultative meetings. The modules were designed to impart skills for need-based project preparation and development to achieve the State level SDG goals. This included explaining the intricacies of preparing a Health Status Report (HSR) for localities/regions at Panchayath, Municipality and Corporation levels and methods of how to develop and submit projects with proper inter-sectoral coordination. Monitoring, social auditing etc are other significant areas that are included in these modules.

**State level ToT on handbook for project preparation for health workers and LSG members of:**

1. Grama Panchayath- was held on November 2016
2. Block and District Panchayath- was done on February 2017
3. Municipality and Corporation- was done on March 2017

(Kindly refer for pictures of the same in the 'Official Books Published' section)\*

**Training on Project Preparation as part of 13<sup>th</sup> Five Year Plan**

SHSRC-K conducted State level ToTs for training the Panchayat team on preparing projects for Grama, Block and District Panchayats. Panchayat Presidents, Health Standing Committee Chairpersons, Medical Officers, Public Health Nurses & Health Inspectors received training from

Grama Panchayats. Similar training on project preparation of Block Panchayats were held for Block Medical Officer, HS, LHS, Block PROs, Block Presidents and Health Standing Committee Chairpersons and of District Panchayats for District Surveillance Officers (DSO), District Panchayat Health Standing Committee Chairpersons, Junior Administrative Medical Officer (JAMO) and Technical Assistant (TA).

State level ToT on handbook for project preparation for health workers and LSG members of Grama Panchayath was held on November 2016; Block and District Panchayath was done on in February 2017 and Municipality and Corporation was done in early March 2017

As per the directions of Additional Chief Secretary (Health and Family Welfare), SHSRC-K organised a one day orientation training on December 2016 for DMOs, DPMs and Dy.DMOs/DSOs on the on-going programmes related to Sustainable Development Goals, Comprehensive Primary Health Care and 13<sup>th</sup> Five Year Plan preparation.



Fig.11 –Delegates attending the training





Fig.12–Group discussion sessions



Fig.13–Hon'ble Health Minister addressing the audience during the training for District Panchyat/Corporation/Municipality



Fig.14– Dr. Vijayakumar, Hon' Consultant-SHSRC-K addressing the participants



Fig.15- Training sessions on the go



### (3.a) CPHC Clinical Guidelines

#### Introduction & Background:

There are certain common health problems people are presenting with at every PHC. These problems could be medical, surgical, gynaecological, paediatric etc. The management the patients receive from these centres are different depending upon the doctor or the facilities available there. A standard treatment guideline is the need of the hour to standardise the care provided in primary care centres to improve the quality of treatment and to reduce the rate of referral to higher centres. A treatment guideline provides directions for identifying, investigating, treating, referring and following up of patients presenting with common conditions. It should also provide instructions for health promotion and prevention of common illnesses.

#### Methodology:

An iterative approach was adopted for forming Clinical Guidelines for CPHC programme. The approach integrated the following considerations while developing the guidelines:

- ◆ Minimal drugs
- ◆ Drugs mentioned is available in the essential drug list
- ◆ Diagnostics suitable for PHC setting
- ◆ Proper information on referrals and back referrals
- ◆ Abiding with the existing National Health Programmes

**The whole process of development of the Clinical Guidelines can be broadly classified into the following three stages:**

- ◆ Selection of common clinical conditions and formation of subgroups
- ◆ Writing and vetting workshops
- ◆ Peer review

#### Selection of common clinical conditions

An expert committee meeting chaired by the Additional Chief Secretary (Health & Family Welfare) comprising of experts from Medical colleges, doctors from Primary Health Centres, specialists and officials from the Department of Health Services was held in July 2016. In the meeting it was decided to widen the scope of services and to ensure the quality of service delivered. SHSRC-K was designated as the nodal agency for the programme. A comprehensive list of conditions were identified after a brainstorming exercise and review of clinical records. After identification of conditions expert groups were formed for each condition. Groups were formed by including at least an academicians from Medical College, a specialist from secondary care centres in Department of Health services and a Medical Officer from Primary Health Centre. In addition to this group Public Health experts or subject experts were included as required.

#### Writing and vetting workshops

SHSRC-K organised a three day writing workshop for expert groups in July 2016. The group discussion and initial draft preparation of the guidelines for each



condition was done in these workshops. Each group had to document the details of presenting symptoms, differential diagnosis, investigations, management, referral criterion and follow up of each condition in the template which was prepared for developing the guidelines. Human resources and other consumables needed at the PHC level to manage each condition were also documented. The drafts prepared by the groups were circulated among the experts for corrections and final draft was submitted to SHSRC-K by August 2016. A vetting committee was constituted comprising of clinical and Public Health experts and program officers from Department of Health services to vet the guidelines. Vetting workshops were organized in the months of September and October 2016. The suggestions of the vetting committee were sent back to the concerned groups for review

and modifications.

### Peer review

The suggestions of the vetting committees were incorporated by the expert groups and final draft of the guidelines was compiled. This was circulated among the academicians and clinicians at different levels of care and Public Health experts for peer review in December 2016. This was uploaded in the official website of SHSRC-K and Department of Health Services for public review and suggestions were solicited through email. The editorial committee scrutinized the suggestions received and compiled and edited the document in to its final form by July 2017. It is being widely appreciated by the doctors within and outside the system due to its practicality and simplicity.



Fig.16- Hon'ble Health Minister and Dr. Shinu KS, Executive Director-SHSRC-K at an inaugural session of a State Level CPHC workshop



Fig.17-Additional Chief Secretary-Sri.Rajeev Sadanandan IAS addressing the participants



### (3.b) Curriculum of CPHC training

- ◆ Constant updation of knowledge, skills and attitudes of doctors working in the Primary Health Care set up is very important to improve the quality of services. Proper and efficient management of common medical conditions at the periphery will reduce unnecessary referral of patients to higher level which will in turn reduce the out of pocket health expenditure incurred by the patient. As a result crowding of patients at higher centres can be reduced thus improving the quality of services offered from these centres.
- ◆ It was decided to prepare a curriculum to provide training for Medical Officers working in the Primary Care to equip them to manage common conditions and to perform procedures with skill and confidence. The Association of Physicians of India (API) Kerala chapter was given the responsibility to prepare training curriculum and modules for this training. SHSRC was entrusted to coordinate the activities in connection with this.
- ◆ The first step was to identify the areas in which training was required. Doctors from Primary Health Centres and Physicians of Taluk/District hospitals who were involved in the process of preparation of CPHC Clinical guidelines were involved in this process along with API. They were asked to identify different areas where training is required. The areas were finalized after peer reviewing by another group of experts.
- ◆ Curriculum was developed by the API team with support and assistance from officials within the system. Several workshops were conducted in connection with this. Final document was vetted by another team who were not directly involved in the process of development of the curriculum.

#### Activities:

SHSRC-K held a full day workshop for around 40 core group API members, mainly consisting of physicians and PHC MOs, in December 2016 at SHSRC-K. This was held for discussing about the common medical conditions seen at a PHC level for development of a training manual to train the health services staff at primary care.



## 4. EPIDEMIOLOGICAL SURVEILLANCE

The Govt of Kerala planned to launch a State-wide Epidemiologic Surveillance programme to develop a baseline data and monitor the burden of communicable diseases, non-communicable diseases and their risk factors.

- ◆ Online data collection will be done by the field staff of the Department of Health Services using tablets. SHSRC was entrusted with the responsibility of coordinating the activities related to the Surveillance programme. As part of this, a state level ToT to provide training at district level was conducted at SHSRC in December 2016. The training intended to orient the trainers on the questionnaire to provide hands on training on the tablet, and field level training. Quality data will be collected from families of selected wards across 14 districts of Kerala.
- ◆ Training of trainers (ToT) was held at SHSRC-K in liaison with the Directorate of Health Services, private medical colleges, public health professionals from different parts of Kerala and delegates of McMaster University, Hamilton in Canada, for four days in December 2016 under the leadership of Additional Chief Secretary for Health & Family Welfare; Sri. Rajeev Sadanandan, IAS.
- ◆ The questions in the questionnaire were discussed one by one and suggestions were sought from the participants in modifying it. All

suggestions were incorporated in to the final questionnaire. A tablet with preloaded software for data entry was distributed to all participants. They were given training to enter the data and how to upload it. The working definitions and methodology of each question was also discussed. They were given hands on field practice in the selected outreach area of Pangappara MCH unit.

- ◆ Post this ToT, the participants were supposed to provide similar training at district level to the concerned field staff to perform data collection and entry using the tablets and uploading the data.



Fig.18–Additional Chief Secretary- Sri.Rajeev Sadanandan IAS addressing the participants



Fig.19-Participants during Epidemiological surveillance workshop



## 5. HEALTH POLICY FOR KERALA

### Introduction:

Health is an inalienable and fundamental human right. This is the basic premise of this policy document. Defined as a state of complete physical, mental and social well-being and not merely the absence of disease, it encompasses the right to a healthy living environment, right to resources needed for maintaining health, right to get free medical care and the right to be treated with dignity when sick.

Though there is a National Health Policy, this alone may not sufficiently address the needs of all states due to their increasingly different levels of development. Kerala, with its high Human Development Index and relatively well developed health care delivery systems, faces many problems which are quantitatively and qualitatively different from the rest of India. There is need for a state health policy that is simultaneously an extension to the national policy framework as well as a guide to the other states to follow as they begin to confront similar problems. It had to also be a guide, propelling forward action for the next few decades.

### Broad Goals:

- ◆ Institute a publicly funded, free, universal and comprehensive health care system



Fig.20- Dr. B Ekbal at the meeting conducted for drafting Health Policy for Kerala State

- ◆ Bring infant, child and maternal mortality to levels in developed countries
- ◆ Increase the healthy life expectancy of the population

### Role of SHSRC-K:

SHSRC Kerala acted as the nodal agency to coordinate the activities of the State Health Policy. A committee for drafting a health policy for the state of Kerala was constituted by the Government vide GO 2326/2016 H&FW in August 2016, with Dr B Ekbal (Member, Kerala State Planning Board) as the Chairman, Dr. K.P. Aravindan (Retd. Professor, Medical College Trivandrum) as the convenor and Dr. R. Jayaprakash (Additional Professor, SAT Hospital) as the Joint Convenor. The committee initiated its activities following discussions with the Hon' Minister of Health in September 2016.

Opinions were sought from professional / service organizations related to health during the sittings at the State Health Systems Resource Centre (SHSRC),



Thiruvananthapuram. This was followed by public hearings meant for people's representatives, voluntary organizations and interested individuals in Kozhikode (October 2016), Thrissur and Thiruvananthapuram (November 2016). Through these more than 500 written suggestions and

opinions were received. The draft report prepared based on these inputs and committee deliberations were presented before the Hon' Minister of Health and the Principal Secretary of Health on December 2016.



Fig.21- Discussions for formulating the State's Health Policy



Fig.22- Discussions: State Health Policy



Fig.23- Discussions: State Health Policy



## 6. KERALA CLINICAL ESTABLISHMENTS (REGISTRATION AND REGULATION) BILL, 2017

### Introduction:

The Kerala Clinical Establishments (Registration and Regulation) Bill, 2017 seeks to achieve the improvement of public health by prescribing basic minimum standards for different categories of clinical establishments to ensure the provision of proper quality healthcare by the clinical establishments from all recognised systems of Medicine i.e. Modern Medicine, Ayurveda, Yoga, Naturopathy, Homoeopathy, Siddha and Unani in the public and private sectors. This is a highly significant public health measure which is touted to change the face of Public Health care in Kerala by bringing more transparency and accountability.

### Role of SHSRC-K:

SHSRC-K has coordinated the activities related to the Kerala Clinical Establishment Bill following various consultative meetings that were conducted over the years. The Bill mandates all clinical establishments which are rendering services in recognized systems of medicines in the state to be registered under the act once it is passed by the Legislative Assembly.

The features of the Bill expounds that it is important to provide for the registration and regulation of clinical establishments with the purpose of prescribing standards of facilities and services for them.

The KCEB 2017 was submitted before the Kerala cabinet by Feb 2017 and approved by the cabinet in March 2017. The rest of the proceedings regarding the Bill would be taken up in the upcoming financial year.



Fig.24- Discussions on Clinical Establishment Bill Kerala



Fig.25- Meetings on Clinical Establishment Bill Kerala



## 7. URBAN HEALTH

(An approach to Comprehensive Primary Health Care in Urban Kerala)

### Introduction:

There has been a considerable increase in urban population in Kerala during the last two decades. The reason can be attributed to the conversion of village area into municipal centres. Recent outbreaks of Dengue and Chikungunya in urban areas, poor health status of urban poor, increasing burden of non-communicable diseases clearly articulated the need for a broader public health programme focusing the welfare of urban poor. It showed the need to effectively infuse public health focus along with curative services. The situation in most cities also revealed that there is a lack of effective coordination among the departments that leads to inadequate focus on critical aspects of public health. It has also been revealed through various studies and analysis that most of the existing primary health institutions are functioning sub-optimally due to problems of infrastructure, human resources, referrals, diagnostics, case load, spatial distribution, and inconvenient working hours.

The exigencies of the situation aforesaid merit the consideration of the strategies given below:

- ◆ Need for clarity of responsibilities for urban health among all the agencies, particularly the critical three – the Department of Health Services, urban local bodies and Mission mode programmes like NUHM.

- ◆ Acknowledging the diversity of the available facilities in the cities, flexible city specific models led by the urban local bodies would be needed. It would, therefore, be effective to set up an over- arching urban local body level integration of all stakeholders for convergent action through a broad framework rationalizing and horizontally linking the available manpower and resources. This involves deployment of Medical Officers who were earlier serving in the institutions situated in the rural areas which are now agglomerated to the nearest urban centres (either newly constituted or existing). Paramedics and outreach staff also must be redeployed in such a way as to provide more focused services to the vulnerable areas in the urban centres. (An urban vulnerability mapping and assessment is being completed in the state)

As part of the Comprehensive Primary Health Care Program, Department of Health and Family welfare conducted a district wise sensitization program to the "Elected Representatives" of Municipalities and Corporations on Primary Health Care services in the urban areas. In this regard National Urban Health Mission Kerala and SHSRC-K organized a one day ToT programme for the district level trainers on Feb 2017.

### Urban Health - Kerala

There has been a considerable rise in the urbanization of the country over the last few decades. Census 2011 data showed, for the first time since independence, that

absolute increase in population is more in urban areas than in rural areas. As per 2011 census, the urban population has increased to 37.71 crores compared to the 2001 census of 28.6 crores. Urbanization resulted in the rapid growth of population, influx of migrants, expansion in city boundaries and parallel growth in slum population and urban poverty.

In Kerala there is considerable increase in urban population accounted by the inflow of migrants and increase in elderly population. As per the census 2011, the urban population of Kerala has increased to 1.59 crores which is almost 48 per cent of the state's total population

Urban slum inmates live with multiple health challenges on the fronts of sanitation, communicable and non-communicable diseases. Home deliveries, under-5 mortality, incomplete immunization, nutritional inadequacy, anaemia among women & children etc are some of the many issues this sect of the beneficiary population face.

#### Challenges/Constraints:

Despite the proximity of the urban poor to urban health facilities, their access to them is severely restricted. The urban poor have limited access to preventive, promotive and curative services as the primary care services in urban areas are ineffective. Further more, public health network in urban areas are inadequate and functions sub optimally with lack of man power, equipment, drugs, weak referral system and inadequate attention to public health.

There is lack of effective coordination among the departments that

leads to inadequate focus on critical aspects of public health such as access to clean drinking water, environmental sanitation and nutrition. Local bodies have direct influence over a wide range of urban health determinants. As per the 1974 Amendment, urban public health system rests with urban local bodies. Their role includes coordinating policies and actions across multiple disciplines and stakeholders, thereby addressing the underlying conditions of major health issues in urban slums and cities.

#### The major problems in urban population of Kerala include-

- ◆ Outbreak of emerging and re-emerging diseases like Malaria, Dengue and Leptospirosis
- ◆ Increase in migrant population
- ◆ Increase in elderly population
- ◆ Increase in non-communicable diseases
- ◆ Lack of integration between service deliveries of staff working in public health sector
- ◆ Gaps with active involvement of urban local bodies, NGOs and CBOs with a public health thrust on sanitation, clean drinking water and vector control

#### Training at SHSRC-K:

SHSRC-K has conducted a one day district level training programme in February 2017 for sensitizing the representatives of Municipalities and





Corporations on the relevance of Primary Health in urban areas. ♦ community risk pooling and health insurance models

**Core Strategies discussed:**

- ♦ Improving the efficiency of public health
- ♦ Promotion of improved access to health care at household level
- ♦ Strengthening public health through preventive and promotive health action
- ♦ Facilitating equitable access to available health facilities
- ♦ Increased health care through
- ♦ IT enabled services and e- Governance
- ♦ Capacity building of stakeholders
- ♦ Strengthening of existing capacity of health delivery and the public health capacity of urban local bodies
- ♦ Planning process to undertake large scale community level activities
- ♦ A volunteer group was created to fill the existing gaps with the active involvement of urban local bodies, NGOs and CBOs with a public health thrust on sanitation, clean drinking water and vector control



## 8. TRANSFORMATION OF PHCs to FHCs

### Introduction & Background:

The Government of Kerala decided to strengthen the health care system through 'Aardram Mission' which was launched on 16th February 2017. Transforming Primary Health Centres into Family Health Centres (FHCs) by redefining the package of services offered and also improving their quality was one of the prime strategies of the Mission. The transformed services aimed to achieve universality (making services available to all irrespective of whether they approach institutions or not) and comprehensiveness (includes promotive, preventive, curative, rehabilitative and palliative services). The services are aimed at being appropriate, rational and of good quality, responsive to the needs of the client group, addressing social determinants of health through intersectoral collaboration and community participation. The services address equity considerations across gender and different segments of population that require special care.

**Vision:** To provide comprehensive health care for each and every individual residing within its jurisdiction.

**Mission:** To achieve the SDG targets through the provision of equitable, affordable and quality care for all.

**Strategies:** Strengthening primary health care by improving quality of services, addressing social determinants of health and enhancing community participation.

**Services:** An FHC will be more than just a hospital and will function as a centre for the promotion of good health and well being. It should have a welcoming environment, appropriate infrastructure and the staff should be pleasant and affable. An FHC will not be just a hospital which alleviates sickness but it should be an institution which promotes health and wellness.

The quality of services at FHCs will be ensured by improving the standards of care through the provision of patient-friendly infrastructure, adequate equipment and implementation of clinical guidelines. Continuity of care between different levels of care in the public health system and different time periods will also be ensured once the e-Health project becomes full-fledged. FHCs will also function as the nodal centre for community based interventions for addressing social determinants of health. FHCs will take the lead in planning the activities of the Panchayat with community participation.

One of the prime strategies for improving the quality of healthcare delivery through the new FHCs involves redefining the service packages to suit the requirements of the target population. Curative services (OP services, emergency, laboratory and referral services), field-level activities, institutional services (hostels, schools, offices and work places), and specific services for marginalized and vulnerable population will be provided by incorporating appropriate social security schemes.

FHCs will strictly follow the Comprehensive Primary Health Care (CPHC) treatment guidelines while attending to patients coming to the OP clinics. Patients who may require treatment





at a higher level will be identified and referred early to the appropriate level of institution in accordance with the treatment guidelines. FHCs will also follow up all cases which are referred back from Taluk or District hospitals.

In order to provide comprehensive primary health care, service packages have been re-defined. Improving the services qualitatively and quantitatively, strengthening the sub centers, addressing the social determinants of health, ensuring effective convergence and community participation are some of the strategies being planned.

## HOW FHCs DIFFER FROM THE EXISTING PRIMARY HEALTH CARE SYSTEM:

FHCs provide patient-friendly care. Barrier-free environment will be ensured in the Out Patient department, making it accessible for all.



Fig. 26- Revamping the PHC

Table 5: PHC versus FHC

Characteristics	PHC	FHC
OP hours	9 am to 2 pm	9 am to 6 pm
Laboratory Services	Only in few centres	Available at all centres standardised
SWAAS program for prevention and control of COPD & Asthma	Not in place	Available in all centres
ASWAASAM program	Not in place	Available in all centres
Sub-centre clinics	Not all days	Specific clinics on 6 days a week in all centres
Institution based care	Irregular	Becomes regular with S/N in old age homes, orphanages, workplaces, schools etc
Vulnerable & marginalized	Inadequate attention	Special attention ensured
Referral and follow up	Limited compliance to patient referral	Forward and backward referral standardised as per CPHC guidelines
Service packages	Not in place	Package of services to each and every person in the Panchayat according to their age, physiological and pathological profile

Quality of care	Insufficient	<ul style="list-style-type: none"> <li>◆ Improved with guidelines. Will ensure preventive, promotive, curative, rehabilitative, palliative care services</li> <li>◆ Training for all category staff</li> <li>◆ Proper and scientific waste disposal measures and infection control</li> </ul>
Infrastructure	Infrastructure not standardized	<p>Standardized infrastructure and equipments:</p> <ul style="list-style-type: none"> <li>◆ Patient friendly reception and registration</li> <li>◆ Token system</li> <li>◆ Waiting areas with improved amenities (adequate seating arrangement, drinking water, audiovisual aids)</li> <li>◆ Display boards and signages</li> <li>◆ Consultation rooms with adequate privacy</li> <li>◆ Barrier free environment</li> <li>◆ Pre-check area</li> </ul>
Equipments	Not standardised	Standardised
Human Resources	1-2 doctors, 0-1 S/N0-1 LT, 1 pharmacist	3 doctors, 4 staff nurses, 1 LT, 2 pharmacists
Nurses role	Nursing care alone	<ul style="list-style-type: none"> <li>◆ Pre-check and triaging</li> <li>◆ Post consultation counselling.</li> <li>◆ Follow up</li> <li>◆ Counselling through telephone</li> <li>◆ Institutional services</li> <li>◆ Important role in the conduct of SWAAS and ASWAAS clinics</li> </ul>



Health and medical records	Records are maintained manually and with limited accessibility	Prepared for everyone and made accessible at different levels of health care through e- Health
Community participation	Inadequate	Ensuring community participation and demand for available services through ASHA, WHNSC, Kudumbasree health volunteers and Arogyasena
Addressing social determinants	Inadequate	Through better intersectoral coordination
Social security programs	Not always	Ensuring the availability through different means

### Health Care Service Delivery Plan-

A health care service delivery plan should be prepared for every individual registered under an FHC based on the health care needs recorded in the family health register. Similar plans to suit the needs of every family under an FHC as well as service delivery plans for the entire Ward and Panchayat should be drawn up. Later, ward and panchayat healthcare delivery plans which suit the needs of the entire population should be developed. Responsibility mapping also needs to be carried out. The service delivery from the FHCs should be based on the defined health plan of the State and the health service delivery plan conceived for the FHCs.

The individual packages are 31 in number and are categorized based on age, gender, physiological and morbidity status. Each package ensures comprehensive health care for the concerned category:-

- ◆ There are 11 packages based on age group: Newborn, infants, under 5, children (6-9 years), girls (10-17 years), boys (10-17 years), men (18-59 years), women (18-59 years), older persons (60 years and above), older women (60 years and above) and older men (60 years and above)
- ◆ Packages based on physiological conditions: antenatal and post-natal
- ◆ Packages based on prevention and risk reduction: Obesity, substance abuse, underweight, NCD diet, physical activity and immunization
- ◆ Packages based on disease conditions: NCD, diabetes, hypertension, PWD, COPD, CAD, stroke, mental illness, cancer care, palliative care, leprosy and TB



**Family packages:**

The family package addresses the needs of all members of the family and other health needs of the family which do not directly come under the individual packages such as quality and quantity of drinking water, rearing pets/cattles, well-chlorination, indoor air quality, household waste disposal and kitchen garden.

**Ward level packages:**

The Ward and Panchayat packages cater to those needs which should be provided at a community level and on a larger scale, such as provision of safe drinking water, solid and liquid waste management, spaces for promoting physical activity & recreation, setting up of kitchen garden, ensuring social security, elderly-friendly social environment and organized, social interventions to prevent social evils like domestic violence and alcoholism. The responsibility for arranging the ward level services rests with WHSNC and Arogyasena, under the leadership of an elected representative of the locality. They will be acting in collaboration with the health system functionaries of the locality

**Panchayat-level packages:**

Panchayat-level packages involve creating physical or social structures to nurture comprehensive primary health care, over and above ward level package. Some examples are: management of non-biodegradable waste, establishing common spaces like library, walkways, office space for self help groups, judicious utilization of idle buildings as venues for sub centers, senior citizen gathering places, vocational

training points, health clubs etc., preparing a plan of action for addressing issues of destitutes and ensuring the enforcement of public health laws to protect the rights of people.

**Role of LSG in FHCs:**

Health for all should be the motto of all local self- governments in attaining the Sustainable Development Goals. LSGs should develop specific targets to be achieved by the Panchayat. They should adopt a proactive role in identifying potential issues which could affect the health care delivery and utilization, and in rectifying them in advance. Local Self-Governments should play a leadership role in the planning, funding, implementation, maintenance, monitoring and evaluation of Family Health Centers. Improving the health status of the community can considerably reduce the expenditure on treatment, which can be channelled to preventive and promotive services as well as other developmental activities. Functions of LSG in the context of FHCs can be broadly divided into the following domains -- stewardship, provider, community mobilization, mobilization of resources and convergence.

**Monitoring and Evaluation:**

Monitoring should act as a tool that helps in speeding up the development processes. Continuous monitoring, right from the planning stage is necessary for the effective implementation of any programme. Multi-level monitoring, both administrative and social, should be the way forward. Social Auditing is also essential for maintaining transparency and equity in the



activities and this shall be led by the LSG and executed by a group representing all sections of society. The Monitoring Committee should be constituted at different levels as ward, sub centre, FHC and Panchayat. Social Monitoring and Evaluation should be addressed by Local Self Government.

**Conclusion:**

The FHCs, as envisaged, will be one of the important vehicles for the State to achieve the short-term and long-term SDG goals for 2020 and 2030 respectively. People friendly transformation of hospitals and standardisation of all levels of hospitals will improve the acceptance of public health system among the public. Ensuring defined

services at specific level of care will reduce unnecessary referral to higher centres and ultimately reduce the out of pocket expenditure. Through this programme the Government aims at bringing down the morbidity amongst the population and preventing catastrophic health expenditure, which could go a long way in promoting social and economic growth. SHSRC is entrusted with the development of concept and training in connection with transformation of Primary Health Centres to Family Health Centres. In the financial year 2017-18, several institutions will be selected for transformation into FHCs. Facility survey of these institutions, training module development and revising the roles and responsibilities for each category of staff are the major responsibilities of SHSRC in this regard.



## 9. FACILITY SURVEY

### Introduction:

As part of Aardram Mission, there are ongoing plans to identify Primary Health Centres for conversion into Family Health Centers in the financial year 2017-18. In order to improve the service delivery and transform the outpatient services, patient friendly standards will be proposed.

For preparing the implementation plan and to monitor the progress of the programme, baseline information on the existing situation of the facilities are essential. In order to identify the gaps and the existing situation, a facility survey is proposed to be conducted. State Health Systems Resource Centre provided the technical support to conduct the survey with the support of National Health Mission team for data collection, analysis and report preparation.

The data collection team would have a minimum of five members from each district comprising of:

Junior Consultant	–	Bio-Medical
Junior Consultant	–	Quality Assurance
Junior Consultant	–	Engineering
Block Public Relation Officers	–	2 or more (depending on the number of facilities selected district wise)

### Objectives:

The primary objective of the facility survey is to assess the existing situation of the selected PHCs (along with its Sub Centres) for transformation into FHCs in the first phase. The assessment would be done in terms of:

- ◆ Infrastructure
- ◆ Facilities available
- ◆ Drugs and diagnostics
- ◆ Human resources
- ◆ Waste management

### Role of SHSRC-K:

Orientation for the team of five members from each district would be carried out by 2017. The trained team would visit the selected facilities and gather data using a validated questionnaire and observation checklist. The data would be uploaded in a shared drop box which shall be accessible to all districts and SHSRC. The data would then be analysed and submitted to the government to plan the civil work, purchase equipments and medicines, deploy of human resources, and post creation.





## 10. DIABETIC RETINOPATHY

### Introduction:

A Memorandum of Understanding was signed between the Public Health Foundation of India (PHFI), Department of Health & Family welfare (DHFV), Government of Kerala and Little Flower Hospital Trust, Angamaly (LFH) on implementation of Diabetic Retinopathy Initiative in 2016.

PHFI held the responsibility for training, research and policy development. LFH is an establishment accredited to Kerala State Ophthalmic Society and carries out various ophthalmic diagnostic investigations and treatments including outreach activities for the welfare of poor in the field of preventable blindness and is working closely with Government Hospitals for skill up-gradations of the ophthalmologists there. DHFW implements various National and State Health Programme of Public Health importance and also provides Comprehensive Health Care Services to the people of the State of Kerala through various types of Health and Medical Institutions.

The common vision was to work in

the areas of prevention of blindness from diabetic retinopathy.

### Objectives of the programme:

a) This programme involved hands-on training of Ophthalmologists, skill up-gradation of the Ophthalmic Surgeons, Ophthalmic Assistants and Physicians. This aims to bring down preventable blindness in patients having diabetic retinopathy by providing needed skills, equipments and hands-on training to the concerned human resource in public health institutions of District/Taluk Hospitals/Community Health Centres of Thrissur district based on the guidelines developed.

b) The needed training would be facilitated by the project through LFH and the instruments, equipments and machines would be provided by the programme over a period of four years.

### Role of PHFI in the programme:

- ◆ Liaisoning with the funders
- ◆ Procurement of necessary equipments



- ◆ Facilitating liaison between DHFW, LFH in the field
- ◆ Facilitating liaison between LFH and field staff for training
- ◆ Regular monitoring of activities in the field

### **Role of DHFW & SHSRC-K:**

- a) Government Order will be issued with regard to the launch and implementation of the project in the District (Thrissur).
- b) Diabetic retinopathy screening will be done by 4 Taluk level hospitals such as Taluk Hospital-Chalakudy, Taluk Hospital-Kunnamkulam, Taluk Hospital, Chavakkad, Taluk Hospital, Kodungalloor and General Hospital, Thrissur in the project area.
- c) Strengthening of facilities at the Taluk level hospitals
- d) Proper mechanism will be in place to make sure that every diabetic patient will be screened or advised for screening for diabetic retinopathy.
- e) State Health Systems Resource Centre-Kerala (SHSRC-K) will identify a hospital in the project area where there is diabetic care being provided by a physician on regular basis.
- f) SHSRC-K will act as a nodal institution for implementing the project in the State and would co-ordinate all activities pertaining to the project.
- g) There would be a task force at the State and District level. State level task force will

be met under the Chairmanship of Additional Chief Secretary, Health & Family Welfare Department, every three months. Members will be the Director of Health Services, the Director of Medical Education, the Director of Indian Institute of Public Health-Hyderabad, the Executive Director-SHSRC-K, the Nodal officer-National Blindness Control Programme and representative of LFH. The Executive Director, SHSRC-K will be the convener.

### **Role of LFH in the Programme:**

- a) Skill upgradation programmes for ophthalmic surgeons/assistants, physicians.
- b) Imparting hands-on training for treatment and maintenance of equipments.
- c) Assess the capability of trained staff for carrying out surgeries/procedures and impart additional training in case of skill shortfall.
- d) Develop standard treatment guidelines and referral pathways for the DHFW jointly with PHFI in a way that could be scaled up to other Districts in the State.
- e) Train ophthalmologists, physicians and ophthalmic assistants from Taluk hospitals as and when deputed by the DHFW.
- f) Develop a detailed clinical treatment protocol for detection and management of diabetic retinopathy.
- g) No patient seeking care and treatment shall be denied the same and if the care and treatment is outside project purview and jurisdiction, referral to suitable care centre shall be arranged.





## 11. DEVELOPING GUIDELINES FOR SANITARY INSPECTION

### Background & Rationale:

Safe Kerala is a drive organised by the state government to keep a check on general sanitation by doing inspections. It is modelled on Safe Trivandrum, an initiative which had been successfully implemented in the capital for creating awareness on public health protection.

As part of this, the health department in association with other departments such as local self-government, Food Safety and Labour, conducts inspections across the state. It was divided as three phases. First phase was conducted in schools, school hostels and canteens to check the premises for general sanitation and to see whether the overall environment was kept clean. Second phase of inspections focussed on hotels, restaurants and small time eateries for ensuring whether food safety and hygiene standards were being maintained there. The third phase mainly focused on migrant labour camps; on inspection it was found that a lot of them were being housed in inhuman conditions and was suffering from several diseases which included leprosy and filariasis.

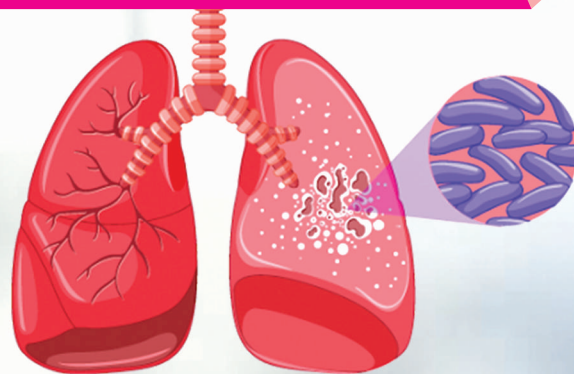
### Process:

A State level workshop was conducted by SHSRC-K for developing guidelines for sanitary inspection by the Health Department. The workshop was conducted in late August 2016 at State Health Systems Resource Centre Thycad. A total of 66 participants were there for the workshop which included personnel from all districts and all types of designations ranging from Health Inspectors to Medical Officers.

### The main agenda for the meeting were:

- ◆ To develop guidelines for sanitary certificate issuance
- ◆ To develop proposal for amendments in the GO of health and LSGD departments on the same
- ◆ Propose a modification in the fee structure

In continuation to this, a vetting workshop was conducted in September, October and November 2016. This discussion was to finalise the draft guidelines developed during the initial workshop. A total of eleven participants were there for the vetting workshop. By November end, a workshop on developing a write up of the guidelines for training purposes was held.



## 12. INTERNATIONAL TB WORKSHOP IN COLLABORATION WITH WHO

### Introduction:

The control of Tuberculosis has been one of the priority areas for the Government of Kerala. A health system that is equipped with well resourced and well spread, committed programme managers/ staff and strong leadership in Kerala has achieved substantial gain in the battle against TB. Kerala is already active in the implementation front for curbing TB. However, the state has specific host and environmental factors influencing TB epidemic like high prevalence of Diabetes Mellitus in the community and among TB patients, high prevalence of chronic lung diseases, prevalence of HIV, crowding of population resultant of rapid urbanization and ever increasing on-the-job in-migration from other parts of the country.

Learning from past experiences and international best practices it was aimed to reduce TB mortality by 35%, incidence by 20% and achieve zero catastrophic cost for TB treatment by 2020. To achieve these targets by keeping in mind the issues the state faces, a strategy was developed which

includes a robust TB surveillance system, active case finding, scaling up locally formulated interventions for case holding, treating latent TB infections, addressing co-morbidities, strengthening air borne infection control mechanisms and effectively engaging all sectors.

### Workshop for TB elimination:

To further refine the strategy, a two day International TB Workshop of experts and stakeholders was held in early 2017 at Hotel Taj Vivanta, Trivandrum in collaboration with WHO for which; SHSRC was the nodal agency.

National and International TB experts, programme managers and other stakeholders including donor agencies were present for guidance to move in the right direction. Support from Government of India and World Health Organization has enabled the state to achieve many milestones in TB with its high political and administrative commitment and enthusiastic team of programme managers.



**Objectives of the workshop:**

- ◆ To understand the TB epidemiology in Kerala
- ◆ To deliberate on strategies for TB elimination in relatively low burden settings of the high burden country
- ◆ To brainstorm on the strategy for TB elimination in Idukki district drafted by the state

- ◆ To identify opportunities for national and international collaboration for TB elimination in Idukki district and Kerala

**Methodology:**

Participants: TB Epidemiologists, Public Health experts, Public Health intervention specialists, policy makers, programme managers and development partners from local, national and international arena (during late 2016 at Thiruvananthapuram, Kerala).

Table-6 : Number and classification of participants / delegates

Participants	Number
International experts	4
National experts including programme managers	10
State level experts and programme managers (out station)	28
State level experts, policy makers and programme managers (local)	25
Support personnel	8
Development partners	5
<b>Total</b>	<b>80</b>

The workshop comprised of presentations by State and district officials, international technical and Public Health experts. There were panel discussions, group work, open sessions and final dissemination.

**Kerala's TB elimination package is characterised by:**

- ◆ Active case finding from community, intelligently deploying its existing 15 CBNAAT machines, LED and light microscopes, X-ray machines and network of clinical specialists.
- ◆ Early detection of drug resistance with universal access to Drug Sensitivity Testing(DST) and DST guided treatment

- ◆ Complete case holding with patient centric and community based treatment support strategies with assured social inclusion and zero catastrophic expenditure.
- ◆ Comprehensive management of TB co-morbidities including Diabetes, HIV and chronic respiratory diseases
- ◆ Primary prevention by reduction in airborne infection and smoking
- ◆ Complete TB notification from private sector
- ◆ Detection and management of latent TB Infection starting with clinically and socially vulnerable population

## Introduction:

SPARK, details like e-mail IDs, contact number, training details, research interests are documented

- ◆ User friendly
- ◆ Regular updated information
- ◆ A planned and integrated system for gathering relevant data
- ◆ Accessible from any where
- ◆ Ensures security of information
- ◆ Reduces paper workload

## Data Collection:

- ◆ Through phone calls
- ◆ Filled performa
- ◆ Public Relations Officer(PRO)/Block coordinators- Collects details
- ◆ Records from DHS

- ◆ To provide up to date service details of all doctors in the Health System
- ◆ To easily identify doctor's present institution, qualification, training undergone and training to be received.
- ◆ To centralize service information: DMIS centralizes the data of doctors in various departments

## Hands-on Training on DMIS Software:

In order to use the software more effectively, SHSRC-K will be conducting a hands-on training for A1 section clerks of all DMO offices, who are dealing the establishment matters of Medical Officers and MIS Assistants of DPMs by 2017 end at SHSRC. Consultants from SHSRC-K would sensitize the participants on the DMIS software.

A hands-on practical session will be conducted to familiarize the participants with the software. This software will be updated regularly by a designated person at SHSRC.

- ◆ Ensures reliability and speedy collection of data.
- ◆ Identifies or locates a person with specific skills or qualification.
- ◆ The details can be downloaded as an excel document.
- ◆ In addition to the information from





## 14. RESEARCH

★	Research Committee formation	22nd Nov 2016
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TITLE	OBJECTIVES	STUDY DESIGN & METHODOLOGY
1. A study on HR deployment and disparity in job roles and present roles and responsibilities in various functionaries under Department of Health Services	<ol style="list-style-type: none"> <li>1. Understand the impact of new appointments of Medical Officer to the health care delivery of a particular institution</li> <li>2. Understand the nature of vacant posts especially that of Medical Officers in the department.</li> <li>3. The reasons behind prolonged vacancies, its effect on delivering health care services.</li> <li>4. To document the posting and transfer practices of the department and study the effect of these practices in the department staff.</li> </ol>	<ul style="list-style-type: none"> <li>◆ A secondary data analysis of OP and IP numbers in case of a tertiary-level center before and after posting will be examined.</li> <li>◆ A qualitative study with the head of institutions will be done to understand the changes brought about by the new appointment.</li> <li>◆ An audit of leave records submitted by Medical Officers at selected districts will be undertaken.</li> <li>◆ Monthly vacancy report of DHS office will be used to obtain details about number of vacant positions.</li> <li>◆ A qualitative study to understand the reasons behind prolonged absence of staff.</li> </ul>
2. Programme evaluation of Arogya Kiranam scheme/ RBSK Programme in Kerala	<ol style="list-style-type: none"> <li>1. To understand the goals, structure, expected outcomes, pattern, and stakeholder ship of Arogya Kiranam Programme.</li> <li>2. To delineate the current policy process including the challenges and opportunities in the implementation, review of the programme.</li> <li>3. To understand the utilization pattern by identifying the top conditions for which beneficiaries seek treatment from the programme and the finance involved.</li> </ol>	<ul style="list-style-type: none"> <li>◆ A mixed method study will be conducted in selected institutions chosen from selected districts categorised as per the district wise utilisation rates of Arogya Kiranam funds in Kerala and conducted among the stakeholders at different levels, viz. policy makers, providers, implementers and beneficiaries.</li> </ul>

3. How healthy are our hospitals in disaster preparedness	<ol style="list-style-type: none"> <li>1. To understand the existing guidelines and protocols for managing disasters in secondary hospitals in Kerala</li> <li>2. To assess the level of preparedness in secondary hospitals in terms of infrastructure, human resources, equipments, logistics and management</li> <li>3. To assess the status of disaster management trainings and programmes among hospital staff and to provide current status of disaster preparedness in secondary hospitals to the health department for follow up action</li> </ol>	<p>◆ A cross-sectional, mixed methods study aimed at secondary level hospitals in Kerala.</p> <p>The study will use a structured questionnaire that will be prepared with support from Experts of National and State Disaster management units. In-depth interviews and focus group discussions will be carried out with primary stakeholders.</p>
4. An Assessment of Socio-Demographic Characteristics of Students enrolled to Government seats of Medical Colleges in Kerala- 2010-2016	<ol style="list-style-type: none"> <li>1. Profiling the socio-demographic characteristics of students who have secured admission to government seats of medical colleges both government-owned and self-financing colleges</li> </ol>	<p>◆ Data of students who go in to the merit medical seats of Kerala in the period 2011-2016 was collected for the study consisting of basic socio-demographic variables and other important variables like rank attained in entrance test, type of medical colleges chosen by the student's community, number of appearances in Kerala Engineering Agriculture Medical (KEAM) entrance exams, courses undergone at matriculation and plus two level etc. which shall be analysed.</p>
5. Food hygiene practices and compliance to food safety guidelines among food service establishments in Thiruvananthapuram corporation	<ol style="list-style-type: none"> <li>1. To find the prevalence of unhealthy food handling practices followed by the street food vendors</li> <li>2. To assess their health status particularly for communicable diseases</li> <li>3. To assess their level of compliance to the food safety guidelines issued by the food safety department</li> <li>4. To check the microbiological quality of water used by the street food vendors to prepare food.</li> </ol>	<p>◆ This is a cross-sectional study to analyze the unhealthy food handling practices followed by restaurants, their pattern of compliance to follow the food safety guidelines in Thiruvananthapuram city.</p> <p>◆ Research Methodology Training on Food Safety- held on 21st Mar 2017</p>

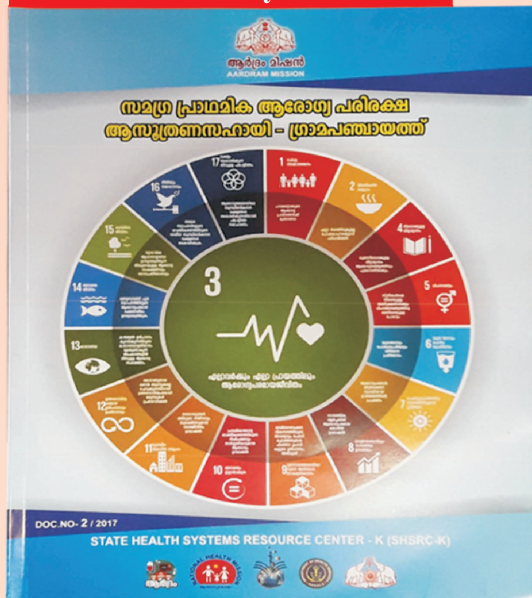
Table 7: Research work at the organisation



## 15. OFFICIAL BOOKS PUBLISHED

### (15.a) HANDBOOKS FOR PROJECT PREPARATION FOR HEALTH WORKERS AND LSG MEMBERS OF THE FOLLOWING (Fig. 27)

#### 1. Grama Panchayath



#### 2. Block and Jilla Panchayath



#### 3. Municipality and Corporation



#### 4. Aardram Handbook



**(15.b) Pointers on the documents published:**

- ◆ These handbooks are designed to impart skills for need based project preparation to achieve the State level SDG goals
- ◆ Aids in developing Health Status Report (HSR) for localities/region at Panchayath, Municipality and Corporation levels
- ◆ Facilitates development and submission of projects with proper inter-sectoral coordination
- ◆ Gives idea about the data sources available for developing HSR, chalks out methods for developing projects and its implementation
- ◆ Implies about monitoring, social auditing



## ★ SUBSEQUENT DOCUMENTS UNDER PROCESS:

- ◆ Clinical Guidelines
- ◆ Revised Roles and responsibilities/Manuals/Handbooks for each category of staff in FHCs like:
  - ◆ Staff Nurses in FHC
  - ◆ Pharmacists in FHC
  - ◆ Lab Technicians working in FHC
  - ◆ Ministerial Staff in FHC
  - ◆ Arogya Sena
  - ◆ Nursing Assistants/Hospital attenders/Part time sweepers in FHC



## 16. FINANCES: 2016-17

Financial details of the organization in the year 2016 -2017 are as below:

Table 8: Research Studies (Head : B 20) FY 2016-17

Total Amount received from NHM	Order No.	Expenditure as on 2016-17 (Rs)
Nil	-	0

Table 9: Aardram Project : (Head : Panchayat Raj Initiative B -8)

Total Amount received from NHM	Order No.	Expenditure as on 2016-17 (Rs)	Balance fund available on 2016-17 (Rs)
2777800 + 3853800 = 6631600	NHM/6615/F1/2016/SPMSU dated 19/11/2016 & NHM/5478/Jr.Con(Fin)/2015/SPMSU dated 16/02/2017	3194351	3437249
2000000	NHM/1026/F2/2017/SPMSU dated 25/03/2017) (P 3.5.1)	1516307	483693



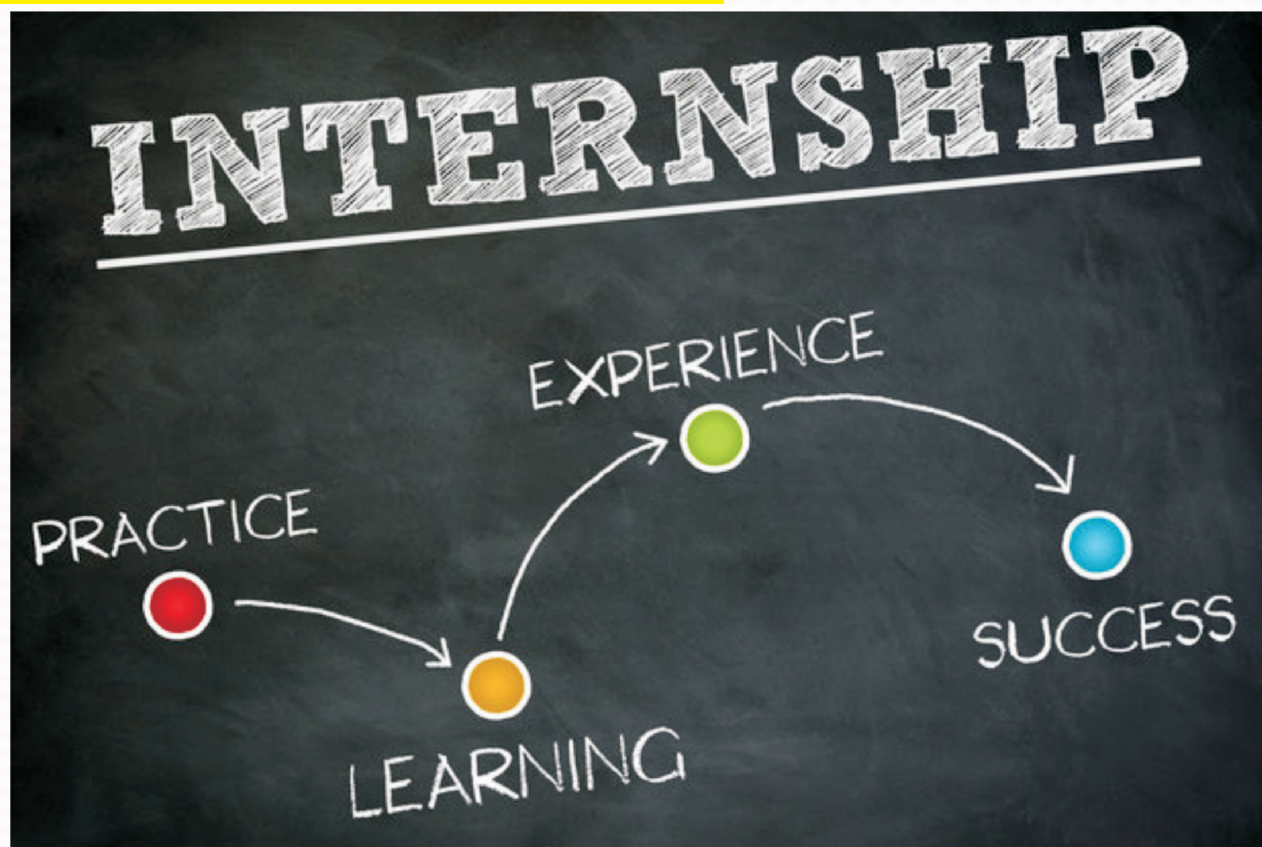
Table 10: Collaborative meetings

	<b>Expenditure for the FY 2016-17 (Rs)</b>
Health Policy	258455
Universal Health Care Project	3943480
UHC -PHFI meeting	14200
SDG meeting	1735
Doctors Data base	25000
Video documentation (Puttingal fire blast)	10000
Epidemiology (Total amt of Rs. 1,11,54,635/- received from DHS as per the GO (Rt) No.113/2016/H&FWD dtd 18/11/2016 and GO (Rt)No.472/17/H&FWD dtd 22/02/2017)	309665

Table 11: Funding for UHC (Universal Health Coverage)

<b>Institutions</b>	<b>Amount Allotted (Rs)</b>
State Health Systems Resource Centre	2000000
Kerala Component- Buffer stock	6500000
University of East London (UEL)	5000000
CHC Venpakal	2000000
PHC Kallikkad	2000000
PHC Chemmaruthy	2000000
Population Research Centre-Baseline Survey	500000
<b>Total</b>	<b>20000000</b>

## 17. INTERNSHIPS AT SHSRC-K



SHSRC-K has always taken a keen interest in fanning and nurturing fresh talent/ novice hands who are interested in the state's health system/ research/ public health and have motivated and supported them to walk the path by providing ample exposure.

The interns at SHSRC-K have played a major role in the conduct of several programmes and other work at the organisation.

Interns have flowed in from various institutions in the period of 2016-2017:

Institutions	Number of interns
TISS	1
JIPMER	3
Central University	5
SCTIMST	1

Table 12: List of universities & number of interns (2016-2017)



## 18. State Health Systems Resources Centre- TIME LINE 2016- 2017

Table 13: Training &amp; other activities

Date	Activities	Number of participants
5th Aug 2016	Presentations by expert groups on given domains in SDG in front of Minister & ACS (H)	23
12th Aug 2016	SDG Road Map Planning Meeting	17
13th Aug 2016	SDG Writing Workshop -1 for proposal in 21 Domains Identified	48
22nd Aug 2016	CPHC Workshop for HS, HI, JHI, TA	52
23rd & 24th Aug 2016	CPHC Workshop (HoD, Community Medicine, JAMO, DSO)	67
26th Aug 2016	Preparation of compiled Sanitary Guidelines Documents HI/HS/TA/Doctors from PH Lab/Other Rps	89
31st Aug 2016	SDG Vetting workshop -1	7
03rd Sep 2016	SDG Curriculum Committee	6
03rd Sep 2016	SDG Vetting workshop II	6
03rd Sep 2016	SDG Expert Committee Meeting	14
03rd Sep 2016	Secondary Care Service Revamping meeting Taluk/Dist /GH Supdt.	13
06th Sep 2016	SDG Vetting Workshop III	8
03rd & 04th Sep 2016	State Resource Team SDG Planning	11
05th Sep 2016	Guidelines for preparing medical projects in Panchayat Level SDG targets	15
06th Sep 2016	Guidelines for preparing Panchayat Level SDG Social determinants in Health	15

Date	Activities	Number of participants
05th Sep 2016	Organization representatives	21
07th Sep 2016	SDG Vetting Workshop IV	7
22nd Sep 2016	SDG Target Finalization meeting in presence of ACS(H)	39
05th & 06th Oct 2016	of CPHC Standard Treatment Guidelines - Vetting workshop I	19
13th, 14th, 15th & 16th Oct 2016	CPHC Handbook work shop I	9
21st & 22nd Oct 2016	Sanitary certificate vetting workshop I	9
24th, 25th & 26th Oct 2016	Vetting workshop on FHC popular reading finalization and manual preparation	16
26th Oct 2016	DPM Meeting on FHC & SDG	16
27th Oct 2016	Workshop on FHC implementation strategy development	44
28th Oct 2016	Workshop on FHC implementation strategy development	64
28th Oct 2016	Mental Health Dissemination – SDG	8
4th Nov 2016	SDG Vetting Workshop on Mental Health	9
08th to 10th Nov 2016	CPHC Booklet Preparation	11
08th Nov 2016	Health Policy Formulation workshop	14
10th Nov 2016	SDG – Health and Equity workshop	7
14th Nov 2016	Faculty meeting for project preparation in 13th five year Plan for Gramapanchayat	40
15th & 16th Nov 2016	project preparation in 13th five year Plan for Gramapanchayat Panchayat President/MOs/HI/JHI/JPHN	462
22nd Nov 2016	Research Committee Formation	10
24th Nov 2016	SDG Vetting workshop on Eye Health & Nutrition	10
25th & 26th Nov 2016	Sanitation Certificate Meeting	11



Date	Activities	Number of participants
26th Nov 2016	SDG Vetting workshop on Mental Health	10
28th Nov 2016	SDG Vetting workshop on Palliative Care	
29th & 30th Nov 2016	CPHC Treatment Guidelines formation workshop for expert group	59
29th & 30th Nov 2016	Public Insurance Scheme Convergence	15
01st Dec 2016	SDG Vetting workshop on MMR	32
03rd Dec 2016	Association of Physicians India Workshop for Clinical Guidelines Support	22
05th Dec 2016	Universal Health Coverage and FHC	39
5th, 6th, 7th & 8th Dec 2016	Epidemiological Surveillance tool training Medical Officers	68
06th Dec 2016	Meeting of DMO/DPM/DSO/DAO	55
10th to 14th Dec 2016	Handbook Preparation-Urban CPHC	20
15th Dec 2016	API CPHC Workshop	11
21st, 22nd Dec 2016	Faculty Meeting -CPHC-Social Justice Dept	14
21st Dec 2016	Health Policy First Meeting	5
22nd Dec 2016	NCD Management Guidelines for Nurses	8
23rd Dec 2016	Urban Handbook finalization	18
23rd Dec 2016	API CPHC Workshop	5
26th to 30th Dec 2016	PRO cum LO Faculty Meeting FHC Concept	23
05th Jan 2017	SDG Disability workshop	22
08th to 13th Jan 2017	Drafting of Kerala Clinical Establishment Bill	5
11th Jan 2017	TB Workshop	5
16th to 17th Jan 2017	CPHC Guidelines -Vetting workshop	9

Date	Activities	Number of participants
16th Jan 2017	Urban Health-Vulnerability Mapping-Workshop	4
17th to 18th Jan 2017	FHC-Handbook preparation for ASHA/AWW/Kudumbasree	12
17th Jan 2017	FHC Handbook for Lab Tech first meeting	5
18th Jan 2017	SDG-Proposal finalization	10
20th Jan 2017	FHC-handbook for Pharmacist	18
21st Jan 2017	FHC-Proposal writing for COPD-SDG	10
23rd, 24th Jan 2017	Consultative workshop on WHO team-SDG	26
25th Jan 2017	FHC-Way forward meeting for DSO's	13
27th Jan 2017	FHC-Handbook preparation for Ministerial Staff	21
28th Jan 2017	FHC Management manual preparation meeting	9
30th Jan 2017	Health Policy Second meeting	3
31st Jan 2017	FHC-Handbook for Pharmacist in PHC	17
02nd Feb 2017	UHC pilot review meeting	3
02nd Feb 2017	Meeting with ASAP Team for planning Massive Open Online Course(MOOC) for health workers in Kerala	2
02nd Feb 2017	Meeting on UPHC sanitation programme	3
04th Feb 2017	Clinical Guideline - Vetting workshop	7
07th Feb 2017	FHC Infrastructure	5
08th Feb 2017	MOOC Meeting	20
08th Feb 2017	Clinical Guideline -Vetting workshop	11
09th Feb 2017	FHC-DPMs Meeting	9
09th Feb 2017	Gender and Equity Meeting for SDG	5
10th Feb 2017	Preparation of handbook for Ministerial staff	5
14th, 15th Feb 2017	Faculty meeting project preparation for 13th five year plan Block & Dist panchayat	51



Date	Activities	Number of participants
16th, 17th Feb 2017	<ul style="list-style-type: none"> <li>• Aardram Mission Launch</li> <li>• State level workshop for project preparation for 13th five year plan Block &amp; Dist panchayat Dist &amp; Block panchayat presidents/MOs/JHI/JPHN/HI/HS/Block PROs</li> </ul>	800
18th Feb 2017	Clinical Guidelines Vetting workshop	9
18th Feb 2017	FHC management Manual Discussion	8
20th Feb 2017	FHC curriculum development	5
21st Feb 2017	Health Policy meeting III	2
21st Feb 2017	Clinical Guidelines Vetting workshop	15
28th Feb 2017	Meeting for development of MOOC	6
01st Mar 2017	Clinical Guidelines Vetting workshop	8
06th, 07th Mar 2017	Faculty meeting project preparation for 13th five year plan Corporation & Municipality	42
08th, 09th Mar 2017	State level workshop for project preparation for 13th five year plan Corporation & Municipality Chairpersons/MOs/HI/HS/JHI/JPHN in Corporation and Municipality	600
15th Mar 2017	MOOC Meeting	6
15th Mar 2017	Clinical Guidelines workshop Meeting	5
16th Mar 2017	Clinical Guidelines for Mental Health	3
17th Mar 2017	FHC Management manual	6
18th Mar 2017	FHC Management manual	10
21st Mar 2017	FHC Management manual	7
21st Mar 2017	Research Methodology Training on Food Safety	7
22nd Mar 2017	Clinical Guidelines discussion	5
25th Mar 2017	Management manual for FHC	5



### TEAM AT SHSRC-K (2016-2017)

Sl no	Name	Designation
1	Dr. Shinu K S	Executive Director
2	Dr. Rekha M Ravindran	Senior Research Officer
3	Sri. Kamaruddeen M	Research Officer
4	Dr. Harisankar D	Research Officer
5	Dr. Sree Nidhi	Research Officer
6	Smt. Chinnu R Nair	Research Assistant
7	Smt. Smitha Maria Thomas	Research Assistant
8	Smt. Aswathy K L	Research Assistant
9	Smt. Prathiba Prasannakumar	Research Assistant
10	Sri. Nithin Vijayakumar	Research Assistant
11	Sri. Rajesh	Consultant Process & Documentation
12	Sri. Mohanachandran	Section Officer
13	Sri. Rajeesh R	Computer Assistant
14	Smt. Mini V S	Computer Assistant
15	Smt. Jesna	Personal Assistant to Executive Director
16	Sri. Binu Prakash S	Office Assistant
17	Sri. Manu K S	House Keeping
18	Smt. Chandrika D	House Keeping
19	Smt. Latha Kumari	House Keeping
20	Smt. Maya	House Keeping
21	Sri. Premjith P V	Gardener

Table 14: Team Members



## OUR TEAM MEMBERS AT SHSRC - K



**Dr. Shinu K S**  
Executive Director



**Dr. Rekha M Ravindran**  
Senior Research Officer



**Dr. Hari Sankar D**  
Research Officer



**Dr. Sreenidhi S**  
Research Officer



**Mr. Kamaruddeen M**  
Research Officer



**Mrs. Chinnu R Nair**  
Research Assistant



**Mrs. Smitha Maria Thomas**  
Research Assistant



**Mrs. Aswathy K L**  
Research Assistant



**Dr. Prathiba P**  
Research Assistant



**Mr. Nithin Vijayakumar**  
Research Assistant



**Mr. Rajesh**  
Consultant Process &  
Documentation



**Mr. Satheesh Chandran**  
Finance cum Admin  
Manager



**Mr. Mohana Chandran**  
Section Officer



**Mr. Rajeesh R**  
Computer Assistant



**Mrs. Mini V S**  
Computer Assistant



**Mr. Binu Prakash S**  
Office Attendant



**Mr. Manu K S**  
House Keeping



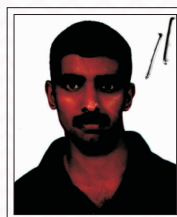
**Mrs. Chandrika D**  
House Keeping



**Mrs. Latha Kumari**  
House Keeping



**Mrs. Maya P**  
House Keeping



**Mr. Premjith P V**  
Gardener