

**A Study on
Effectiveness of Panchayati Raj Institutions in Health
Care System in the State of Kerala**

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Preface

The imperative role of Panchayati Raj Institutions (PRIs) in the context of dual responsibilities and controls in public health care system has made a positive impact on rural health scenario of Kerala. The present study has brought out successful experiences of PRIs in Kerala for the consideration of other Indian states in the formulation of action plan for strengthening public health delivery system. For instance, Hospital Management Committee (HMC) under the leadership of the elected head of the concerned local government plays a vital role in the management of a public health institution in Kerala. While the chairperson of HMC is elected head of the local government, Medical Officer of the respective Public Health Institution is its convener. HMC is a democratically constituted body that provides a platform for elected representatives and officials of PRIs/ Municipalities and health officials to work jointly for the efficient functioning of PHIs. This experience can be shared with some of the Indian States where Rogi Kalyan Samities are not functioning as democratically run system. Similarly, there is a good scope for mobilizing local resources for the implementation of public health projects under the initiatives of Panchayati Raj Institutions in Indian States.

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Abbreviations

CHC	Community Health Centre
DH	District Hospital
DHS	The Department of Health Services
DMO	District Medical Officer
HMC	Hospital Management Committee
IP	In Patient
KMSCL	Kerala Medical Services Corporation Limited
NRHM	National Rural Health Mission
OBC	Other Backward Communities
OP	Out Patient
PHC	Primary Health Centre
PHI	Public Health Institution
PRI	Panchayati Raj Institution
SC	Sub Centre
TH	Taluk Hospital

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1. Introduction/ Objectives

The main objective of the 73rd amendment was to create a new Panchayati Raj Institution (PRI) system with People's participation providing good governance at grassroots level. Through these amendments a separate schedule was added to the Constitution (Eleventh Schedule) listing 29 subjects that could be devolved to the local government institutions. Out of these 29 subject the 23rd one is health and sanitation, including hospitals, primary health centers and dispensaries. The present study examines how Panchayati Raj Institutions, health departments and Public Health Institutions have been performing their obligations in respect of delivery of public health services.

Kerala is one among the states where the implementation of the Panchayati Raj Act has been successfully done and all 29 subjects, including health, mentioned in the Eleventh Schedule of the Constitution have been transferred to the PRIs and their functions are clearly demarcated among the three tiers. Decentralization of the health care sector in State of Kerala has resulted in dual control over the staff, duality of monitoring and responsibilities. In this context, it will be quite relevant to capture the picture of functioning of Public Health Institutions.

In respect of the reference period of the study primary data was collected covering the period from 2005 to 2011 while the post 73rd Constitution Amendment Act period , from 1992 to 2010, was taken for secondary data. The finding of the proposed study will enable Planning Commission to formulate an action plan to enhance the role of PRIs in public health delivery system and to tackle associated problems, especially issues related to duality of responsibilities and controls in health care system.

1.1 Objectives

Main Objective

The main objective of the proposed project is to assess the effectiveness of Panchayati Raj Institutions in Health Care System in the State of Kerala with a special reference to impact of duality and role of bureaucracy.

Specific Objectives

- Carry out a study of role of PRIs in health care systems in the State of Kerala
- Critically examine the structure of Public Health Institutions and devolution of functions, funds and functionaries to PRIs in health care system in the State of Kerala.
- Analyse role of bureaucracy and assess the impact of duality of responsibilities and controls in health care system in the State of Kerala.
- Study the access of health services at each level of health institutions to various social classes, gender and age groups.
- Identify problems and deficiencies on account of duality of controls and responsibilities and suggest measures to improve rural health delivery system.
- Formulate an action plan for increased participation of PRIs in rural health delivery system.
- Draw lessons from experience of Kerala, the State which has transferred its Public Health Institutions to local government institutions well in advance, for the consideration of other Indian states.
- Prepare “best practices” of PRIs in public health services in Kerala for the dissemination among various Indian States.

2. Methodology

2.1 Empirical Study

The study is primarily empirical. Primary data was collected from rural Public Health Institutions and Panchayati Raj Institutions. These include officials, beneficiaries and other stakeholders of rural Public Health Institutions and elected representatives, officials and other stakeholders of Panchayat Raj Institutions. Six districts from the State of Kerala is selected using purposive random sample method that was used for the selection of six districts based on following criteria :

- Cover districts from northern, central and southern regions
- Cover districts from coastal, plain and hilly regions
- Cover best performing district and poor performing district in terms of health indicators

The selected six districts were Alappuzha, Kottayam, Malappuram, Pathanamthitta, Thiruvananthapuram and Thrissur. From the selected six districts Public Health Institutions along with the respective Panchayati Raj Institutions was studied in detail. The selection of these institutions was carried out using random sample method

These Public Health Institutions and the respective Panchayati Raj Institutions are classified into four broad categories as follows:-

- | | | |
|--|---|-----------------|
| • District Hospital | – | Zilla Panchayat |
| • Community Health Centre(CHC)/ Taluk Hospital | – | Block Panchayat |
| • Primary Health Centre (PHC) | – | Gram Panchayat |
| • Sub Centers(SC) | – | Gram Panchayat |

All the categories of Public Health Institutions were covered in the survey. From each district, 1 District Hospital, 2 Community Health Centres / Taluk hospitals, 4 Primary Health Centres and 6 Sub Centres were taken. Thus a total of 6 District Hospitals, 12 Community Health Centres / Taluk Hospitals, 24 Primary Health Centres and 36 Sub Centres were studied.

From Public Health Institutions, respondents were medical officers, health officials (other than medical officers), health workers and patients/beneficiaries. From 96 medical officers 78 were from Allopathic Institutions and 18 from Ayurvedic and Homeopathic institutions. From 96 health officials/health workers (other than medical officers) 78 were from Allopathic Institutions and 18 from Ayurvedic and Homeopathic Institutions. A total of 612 patients/beneficiaries that comprised of 540 from Allopathic Institutions and 72 from Ayurvedic and Homeopathic institutions were covered under survey.

All the three tiers of PRIs in the selected districts were studied. A total of six Zilla Panchayat, 12 Block Panchayats and 24 Gram Panchayats making a total of 42 PRIs were studied. Data was collected from a total of 210 respondents under this category.

Four types of structured questionnaires were used to collect primary data from the following categories of respondents:

- Medical Officers of PHI
- Health officials/health workers (other than medical officers)
- Patients/ Beneficiaries
- Elected Representatives, Officials in PRIs, NGOs representatives etc.

Data was collected from a number of Focus Group Discussions (FGDs) in all the six districts by using a separate check list. Secondary data including studies, reports and data prepared by government and non-government organizations were also used for the study.

2.2. Reference period of the study

The primary data covered the period from 2005 to 2012. The secondary data covered the period after the enactment of 73rd Constitution Amendment Act, 1992.

3. Findings/Conclusions

3.1 Transfer of PHIs to PRIs : Kerala has a strong Panchayati Raj system with a total of 1165 Panchayati Raj Institutions that consist of 999 Gram Panchayats, 152 Block Panchayats and 14 District Panchayats. Subsequent to the enactment of the Panchayati Raj Act various Public Health Institutions were transferred to the three-tier Panchayats in Kerala in February 1996. Kerala has a total of 2706 Public Health Institutions that comprises of 1272 Allopathic, 864 Ayurvedic and 570 Homeopathic Institutions. Gram Panchayats were given Dispensaries, Primary Health Centers and Sub Centers, Maternity and Child Welfare Centers, Immunization and other preventive measures, Family welfare programme and Sanitation programme. Community Health Centre and Taluk Hospitals were placed under Block Panchayat. Management of District Hospitals, setting up of Centers for care of special categories of handicapped and mentally disabled people and co-ordination of centrally and state sponsored programmes at district level were given to District Panchayat.

3.2 Role of PRIs, Dual Responsibilities and Controls System: Functionaries/ personnel of Public Health Institutions are not yet transferred to Panchayati Raj Institutions. Doctors and other officials of Allopathic, Ayurvedic and Homeopathic institutions are still under the Directorate of Health Services, Indian System of Medicine Department and Directorate of Homeopathic respectively. Regular employees of Public Health Institutions continue as state government employees under respective departments. Panchayati Raj Institutions are given a certain level of control over these functionaries/ personnel. However, their controls and responsibilities are limited. Their salary is continuously paid by the Department of Health Services or Department of Indian System of Medicine or Directorate of Homeopathy, Government of Kerala. They are responsible for recruitment, placement and promotion of health personnel and Panchayati Raj Institutions do not have any role in these activities. However,

Government of Kerala has given managerial and part disciplinary control over the staff of Public Health Institutions to the concerned Panchayati Raj Institutions . Panchayati Raj Institutions are not in a strong position to take action against regular staff who are appointed by state government. It is significant to note that Panchayati Raj Institutions and health personnel hold joint responsibilities and they share certain responsibilities. This situation has resulted in dual responsibilities and controls system .

3.3 Hospital Management Committee: It is a common platform for Panchayati Raj Institutions and Health Officials. It is a democratically constituted body that provides a platform for elected representatives and officials of Panchayati Raj Institution and health officials to work jointly for the efficient functioning of Public Health Institutions. Each Public Health Institution under Allopathic, Ayurvedic and Homeopathic system has a Hospital management Committee. In order to manage a public health institution it is required to constitute a Hospital Management Committee under the leadership of the elected head of the concerned local government.

3.4 Operation of Dual Responsibilities and Controls System: Day-to- day administration of each Public Health Institution is carried out by its Medical Officer. It is the medical officer who heads the team of health officials responsible for providing medical services. Panchayati Raj Institutions carry out overall management of PHI, maintenance of existing infrastructure including building and equipments, building up new infrastructure, allot funds for purchase of certain percentage of medicines, equipments and furniture and take corrective measures and suitable actions on the complaints received from patients and public against PHIs. The result of our field survey reveals that 86 percent of Panchayati Raj Institutions had carried out activities to improve the health delivery system of Public Health Institutions in their respective jurisdiction

3.5 Positive Impact of Role of PRIs in PHIs: The results of our field survey clearly indicate that the system of dual controls and responsibilities yielded good results when elected representatives and officials of Panchayati Raj Institutions and medical officers were in good terms and maintain positive and cordial relationships. There is a substantial improvement in respect of attendance of health officials, availability of medicines, quality of services and quality of infrastructure due to the intervention of PRIs in 2012 compared to 2005. However, when there was a conflict the effectiveness of Panchayati Raj Institutions in Public Health Institutions was adversely affected.

3.6 Public Health Institutions - Sources of Funds: Public Health Institutions in the state of Kerala have five major sources of funds ie, State Plan and Non-Plan Fund, Grant from Local Government Institutions, National Rural Health Mission Fund, Hospital Management Committee Fund and Donations from Individuals and Organizations. The source of Hospital Management Committee Fund includes fee paid by patient at the time of Out Patient/In Patient registration, donation from public and fund received from governments such as National Rural Health Mission.

3.7 PRIs and Increased Community Participation in the Management of Public Health Institutions: Major strengths of Public Health delivery system in Kerala are now mainly in the increased community participation through PRIs in the management of Public Health Institutions and Public Health Initiatives, A Positive working relationships between Health Departments and Panchayati Raj Institution, ability to respond effectively to different needs of local people ,enhanced health infrastructure and service delivery, Panchayati Raj Institution-led voluntary initiatives for Public health projects are other positive outcomes of dual responsibilities and controls system

3.8 Dual Control and Responsibilities- Problems: Public health delivery system under the dual control and responsibilities is engulfed as the certain problems as listed below:

3.8.1 PRIs and Lack of Adequate Professional Support: Lack of adequate professional support and absence of understanding, capacity and confidence of the elected representatives and officials of Panchayati Raj Institutions in addressing the health issues were reported from a few Panchayati Raj Institutions during our field survey. Ego clashes between President or Secretary of Panchayati Raj Institution and Medical officer of the respective Public Health Institution had resulted in operational problems in 16 percent Public Health Institutions.

3.8.2 Health Personnel : Shortage of Doctors and Health Personnel is another serious problem. As doctors of Public Health Institutions are allowed to carry out private practice in Kerala, time and interest allocating between Private Practice and Service in Public Health Institutions by a doctor had affected their commitment adversely. The issue of conflict of interest of doctors between private practice and service in Public Health Institution is not yet addressed.

3.8.3 Lack of a Unified Public Health Act : Kerala does not have a unified Public Health Act. The Public Health Acts in Kerala are archaic. The Acts are not in line with Kerala Panchayats Raj Act 1994 and Food safety and Standards Act 2006.

3.8.4 Lack of integration of Health Institutions at the respective local government level : While about 18 percent Panchayati Raj Institutions under survey had all the three types of Public Health Institution facilities - Allopathic, Ayurvedic and Homoeopathic - in their respective jurisdiction it was found that there was no integration among them at the respective local government level.

3.8.5 PRIS and Management: Role of Panchayati Raj Institutions in the operation and management of these the health institutions was limited. It may be noted that a Public Health Institution is a professional institution staffed by technical people and several Panchayati Raj Institutions under our survey were not in a position to involve actively in the management of Public Health Institution. Hence, in practice, jurisdiction of Panchayati Raj Institution ended with just administrative oversight.

3.8.6 Lack of Coordination: It is found that inadequate involvement of Panchayati Raj Institutions and the lack their coordination with health officials and community led to the inefficient functioning of some rural Public Health Institutions. Increased role and dominance of health officials vis-a vis Panchayati Raj Institutions and adverse impacts of duality of controls and responsibilities undermined the efficiency of the rural health delivery system.

3.9 Access of Health services to Different Social Classes: It is found that Other Backward Communities were the largest section of beneficiaries of Public Health Institutions followed by Scheduled Castes . About 42 percent beneficiaries of District Hospital and 41 percent beneficiaries of Community Health Centers were from Other Backward Communities .

3.10 Malappuram Zilla Panchayat - A successful PRI Model in Public Health Delivery System: The initiatives of Malappuram Zilla Panchayat in the field of palliative care, kidney patient care, community psychiatry and services for HIV patients can be taken as a successful PRI Model in Public Health Delivery System. The relentless effort from the Zilla Panchayat and selfless support from members of the community have resulted in the design and implementation of innovative projects in the field of public health delivery. Without depending on grant from state or central government Malapuram Zilla

Panchayat created funds by mobilizing every amount and materials, however small it may be, from every citizen of the district and thus able to script a new chapter in community participation. This is a classical example of collaborative governance that needs to be rooted in the new institutional set up in view of difficulties of government mechanism to meet the growing needs of the people. The political and bureaucratic leadership of Malappuram Zilla Panchayat has been the primary instigator of these collaborative initiatives. This significant participation from the local community strengthened the collaborative efforts in the field of public health delivery system.

3.11 Pathanamthitta Zilla Panchayat-Sub Optimal Performance in Public Health Delivery System:

Three tiers of PRIs in all six districts under the survey played a significant role in the delivery of public health services. It is found that some PRIs such as Pathanamthitta Zilla Panchayat have sub optimal performance. Pathanamthitta Zilla Panchayat, compared to other Zilla Panchayats covered under our survey, was not performing well in respect of various aspects of public health delivery.

3.12 Benefits to Patients : The enhanced involvement and role of PRIs in the functioning of public health institutions in Kerala has resulted in the substantial improvement in the availability of health services and facilities, especially medicines, health officers and health infrastructure .

4. Recommendations

4.1 Effectiveness of Panchayati Raj Institutions in Health Care System in the State of Kerala:

Suggestions for Improvement

4.1.1 Responsibility Mapping: Certain issues of dual responsibilities and controls need to be addressed by developing a new system of clear task assignment. The new system should define clear role, activity and responsibility mapping. Administrative and technical functions should be made precise and unambiguous. It is important to introduce well- defined procedures on the management of funds by the Panchayati Raj Institutions and health departments. Responsibility of management of drugs, assets and facilities should be assigned. Both the functions of management of health care institutions' and administrative control need to be defined clearly. Roles and responsibilities of standing committee on health should also to be made explicit. The role of standing committee on health in each Panchayati Raj Institution should to be strengthened.

4.1.2 Technical Expertise to Panchayati Raj Institutions on Health Issues: There is an urgent need to provide technical expertise to Panchayati Raj Institutions on health issues, projects and programmes. Panchayati Raj Institutions should get proper knowledge and awareness about the health issues.

4.1.3 Orientation and Technical Guidance to Health Officials: Medical officers and other health officials should also be reoriented and trained on technical aspects of health planning and management in the context of dual controls and responsibilities. There is a need for creating positive understanding between Panchayati Raj Institutions and Medical officers. Training programme or orientation programme need to be organised occasionally for both elected representatives and Medical Officers.

4.1.4 Convergence of Different Agencies of Health Sector: There is a good scope for the integration and convergence of different agencies of health sector. Different agencies such as Health and Sanitation Mission and Clean Kerala Mission have been working in the area of public health. The convergence should be carried out at the level of district Planning Committee.

4.1.5 Integration of Health Plan: Health plan of each Panchayati Raj Institution with district plan and again, with the health plan of the state. Concerned health departments should be involved in this process by Panchayati Raj Institution, District Planning Committee and State Planning Board.

4.1.6 Avoid Idling of Building and Equipments: It is important to avoid idling of building equipments of Public Health Institutions in Kerala. Proper coordination has to be ensured while providing additional infrastructures like buildings and Man power in units to avoid idling.

4.1.7 Availability of Doctors and Health Personnel: Necessary steps need to be taken to improve the availability of adequate doctors and health personal in Public Health Institutions. Action may be taken to fill up all vacant posts, and control unauthorized absence of medical and para medical staff.

4.1.8 Hospital Management Committees: Members of hospital management committees should be given regular training or orientation on the role and functioning. KILA, the local government training centre in Kerala can be entrusted with this task.

4.2 Effectiveness of Panchayati Raj Institutions in Health Care System in the State of Kerala: Lessons for other States

Following recommendations may be considered by Indian states to improve public health delivery system:-

4.2.1. Devolution of Power: In line with 73rd Constitution Amendments health should be transferred to Panchayati Raj Institution and powers shared be devolved to Panchayati Raj Institutions in letter and spirit. In order to improve the rural health scenario of India it is quite significant to enhance the capacity of panchayats to control and manage provisioning of health services . Moreover, Panchayati Raj Institutions should be in a position to develop an effective health management information system.

4.2.2 Increased Community Participation in management of Public Health Institutions and Public Health Initiatives: In view of the increasing dimensions of issues related to public health delivery it is essential to ensure the participation of community in the implementation of public health activities and management of Public Health Institutions. This can be achieved by the transfer of Public Health Institutions to Panchayati Raj Institutions. Control and management of Panchayati Raj Institutions can make a considerable improvement in direct accountability of public health and health care institutions.

4.2.3 Delivery of Public Health System: An effective platform for various stakeholders: Each Public Health Institutions needs involvement, cooperation and support of different stakeholders such as representatives of communities, political parties, officials of relevant departments and public utilities apart from elected representatives and officials of Panchayati Raj Institution and health officials. While Hospital Management Committees of each Public Health Institutions is an effective platform for various stakeholders to exchange ideas, discuss issues and formulate action plan for the delivery of public health system in Kerala. Similar platforms can be created for Public Health Institutions in other States.

4.2.4 Panchayati Raj Institutions and Local Health Needs: A strong Panchayati Raj Institution system can provide different forums and platforms for discussing health needs of people and formulating health plan for its respective area.

4.2.5 Health Infrastructure and Service Delivery: Given the condition of the health infrastructure shortage in various Indian states Kerala approach can be used for achieving improvement in the health infrastructure and quality of service delivery. Joint initiatives of Panchayati Raj Institutions and health departments can make a considerable impact in improving the infrastructure of various Public Health Institutions in a state. This can include creation of new infrastructure and up-gradation of existing infrastructure, purchasing equipments. Even extension of health services, especially in campaigns like immunization and epidemic control can be achieved under such a joint initiative.

4.2.6 Panchayati Raj Institution-led Voluntary Initiatives for Public Health Projects: There is good scope for mobilizing local resources for the implementation of public health projects under the initiatives of Panchayati Raj Institutions. Public health projects including several innovative health related projects can be implemented by using donations from the public. Initiatives of Panchayati Raj Institutions can activate the spirit and willingness of communities to involve in the improvement of public delivery system.

4.2.7 PRIs & PHIs : Development of Performance based Indicators : An assessment of the involvement of PRIs in the operation and management of a Public Health Institution can be carried using certain performance based indicators. These performance or outcomes can be broadly divided into different categories such as improved physical infrastructure of Public Health Institutions in a Panchayat Area, improved human infrastructure of Public Health Institutions due to the intervention/initiatives of PRI and execution of new projects in a Public Health Institution due to the intervention/initiatives of PRI. The performance based indicators include increase in the number of PHI having own land due to the intervention/initiatives of PRI, increase in the number of Beds added to PHI, regular maintenance of physical infrastructure and increase in the number of Medical Officers, paramedical staff and other staff.

Chapter- I

Introduction

India witnesses widening differentials in health outcomes mainly caused by socio-economic inequities and inequities in provision and access to health services. Most of the Indian states have fared poorly in health outcomes. Several Scholars have emphasized the need for addressing the persistence of inequities in health and access to health services in India. Key areas that require attention to deal with these issues include introduction of innovative systems of monitoring and evaluation of progress towards equitable health outcomes and strengthening democracy in the functioning of public health delivery system (Baru, et al 2010). Panchayat is the “third tier” of government broadening the democratic base of the Indian polity. The Constitution (Seventy-third Amendment) Act 1992 made drastic changes in the domain of local government. Panchayati Raj Institutions (PRIs) have started to play a significant role in public health delivery system in state of Kerala.

1.1 Framework of Study

Basic parameters of the present study involve three key features: Panchayati Raj Institutions , Health Departments and Public Health Institutions. PRIs are local level bodies to identify, formulate, implement and monitor development and welfare programmes. One of the major functions of the Panchayats, according to the 73rd Constitution Amendment, is to prepare plans for economic development and social justice and to implement these schemes (Article 243 G) Under 73rd and 74th Amendments of the Indian Constitution a separate schedule was added to the Constitution (Eleventh Schedule) listing 29 subjects that could be devolved to the local government institutions. Out of these 29 subject the 23rd one is health and sanitation, including hospitals, primary health centers and dispensaries. The main objective of the 73rd amendment was to create a new PRI system with People’s participation providing good governance at grassroots level. All 29 subjects mentioned in the Eleventh Schedule of the Constitution have been transferred to the PRIs in Kerala and their functions are clearly demarcated among the three tiers of PRIs. The present study examines how PRIs, Health Departments and Public Health Institutions have been performing their obligations in respect of delivery public health services.

1.2 Relevance of the Study

Eleventh Five Year Plan (2007-12) emphasized the need for greater involvement of different tiers of Panchayati Raj Institutions, right from the village to district level, in the public health delivery system in their respective jurisdiction. The National Rural Health Mission (NRHM) has sought to empower the PRIs at each level i.e. village Panchayat, intermediate Panchayat and district Panchayat, to take leadership in controlling and managing the public health infrastructure at district and sub- district levels. The formation of Village Health and Sanitation Committee in each village within the overall framework of Gram Sabha is an essential step under NRHM. NRHM has sought amendments to Acts and Statutes in States to fully empower PRIs in effective management of the public health system. NRHM has encouraged devolution of funds, functionaries and functions to PRIs to build capacities of elected representatives and user group members for improved and effective management of the health system. As health is a concurrent subject in the Constitution, State governments are dominantly responsible for health provisioning. Some States like Kerala, West Bengal, Maharashtra and Gujarat have already taken initiatives in line with guidelines of NRHM and their experiments have shown the positive gains of institutionalizing involvement of PRIs in the management of the health system. However, several other States are quite slow in implementing these policy changes and resultant increased State level variations are a great concern.

Kerala is one among the states where the implementation of the Panchayati Raj Act has been successfully done and all 29 subjects, including health, mentioned in the Eleventh Schedule of the Constitution have been transferred to the PRIs and their functions are clearly demarcated among the three tiers. Decentralization of the health care sector in State of Kerala has caused problems such as dual control over the staff, duality of monitoring and responsibilities. In this context, it will be quite relevant to capture the picture of functioning of Public Health Institutions in Kerala. The finding of the proposed study will enable Planning Commission to formulate an action plan to enhance the role of PRIs in public health delivery system and to tackle associated problems, especially issues related to duality of responsibilities and controls in health care system.

1.3 Objectives

1.3.1 Main Objective

The main objective of the proposed project is to assess the effectiveness of Panchayati Raj Institutions in Health Care System in the State of Kerala with a special reference to impact of duality and role of bureaucracy.

1.3.2 Specific Objectives

- Carry out a study of role of PRIs in health care systems in the State of Kerala
- Critically examine the structure of Public Health Institutions and devolution of functions, funds and functionaries to PRIs in health care system in the State of Kerala.
- Analyse role of bureaucracy and assess the impact of duality of responsibilities and controls in health care system in the State of Kerala.
- Study the access of health services at each level of health institutions to various social classes, gender and age groups.
- Identify problems and deficiencies on account of duality of controls and responsibilities and suggest measures to improve rural health delivery system.
- Formulate an action plan for increased participation of PRIs in rural health delivery system.
- Draw lessons from experience of Kerala, the State which has transferred its Public Health Institutions to local government institutions well in advance, for the consideration of other Indian states.
- Prepare “best practices” of PRIs in public health services in Kerala for the dissemination among various Indian States.

1.3.3 Hypothesis to be tested

- Inadequate involvement of Panchayati Raj Institutions (PRIs) and the lack of coordination between PRIs, bureaucracy and community lead to the inefficient rural health delivery system.
- Increased role of bureaucracy and adverse impacts of duality of controls and responsibilities undermines the efficiency of the rural health delivery system.

1.4 Literature Review

Several scholars have analyzed diverse problems in respect of health delivery system in the context of role of PRIs. Anant Kumar (2008) investigated several grave challenges confronted by Jharkhand in the health sector. A sizeable share of population remains deprived of basic health care facilities despite the NRHM and other health initiatives by the government and related agencies. The solution is to make the public health system accountable, affordable and accessible by improved management of resources and enhanced role for PRIs and communities. According to Rama Baru, et. al (2010) the review of the NRHM has shown interstate variations in the uptake of the programme and serious gaps in the availability, deployment and retention of medical and paramedical personnel. The study found that, given the number of programmes that are focusing on the poor and socially marginalised, the need arises for enhanced public investments and greater synergies at different levels of implementation within and across ministries.

The first round table of Ministers in charge of Panchayati Raj held in Kolkata during 24-25 July 2004 recommended that Panchayati Raj Institutions should be empowered to function as institutions of self-government for the twin purposes of (i) making plans for economic development and social justice for their respective areas, and (ii) implementing programmes of economic development and social justice in their respective areas, for subjects devolved to the PRIs, including those listed in the Eleventh Schedule, (Government of India, Ministry of Panchayati Raj, 2004:2). Several studies have reported that Kerala is in the forefront of decentralization of powers following the 73rd and 74th Constitutional Amendments. Kerala is one among the states where the implementation of the Panchayati Raj Act has been successfully done. In 1994, the Kerala enacted the Panchayati Raj Act 1994, in conformity with 73rd and 74th Amendment of the Indian Constitution through which a separate schedule was added to the Constitution (11th Schedule) listing 29 subjects that could be devolved to the local government institutions. In 1996, Government of Kerala through Peoples Planning Programme revamped its decentralization process with a series of drastic measures. In fact, health is one of the 29 subjects mentioned in the Eleventh Schedule of the Constitution to be transferred to the PRIs. In Kerala all 29 subjects mentioned in the Eleventh Schedule of the Constitution have been transferred to the PRIs and their functions are clearly demarcated among the three tiers. The local governments in Kerala are given most of the institutions and functions relating to social and human development. All the institutions barring medical colleges and big regional hospitals have been transferred to the local government (John, 2006).

A study on Kerala's decentralization of health sector (Narayana and Hari Kurup 2000), argues that three basic problems of decentralizing the health care sector, namely spillover effect, role and relevance of a pre existing body (Hospital Development Committee or HDC), and the level of minimum health care service to be provided by the health care institutions, have not been adequately addressed. This study analysed decentralization of the health care sector in Kerala and the associated problems as perceived by the elected members of local government. Various issues of public health delivery system in Kerala were highlighted in some of the recent studies. These studies emphasized the need for enhancing investment of government in social sector focusing on health. Government of Kerala has to work out an agenda for equitable distribution of health services along with a crafting of a credible public health system in the State. It should strengthen Public Health Institutions and improve Public Health Centers epidemiologically and financially (John 2011).

So far no attempt has been made to carry out a study on effectiveness of PRIs in health care system in the context of any Indian State with a focus on impact of duality and role of bureaucracy. In view of the absence of such study especially in the context of NRHM, the flagship health programme, there is a need for a study on effectiveness of PRIs in health care System in the State of Kerala.

1.5 Empirical Study : Methodology

1.5.1 The study is primarily empirical. Primary data was collected from rural Public Health Institutions and Panchayati Raj Institutions through a sample survey and case studies. The respondents of the survey included officials, beneficiaries and other stakeholders of rural Public Health Institutions and elected representatives, officials and other stakeholders of Panchayat Raj Institutions. Six districts from the State of Kerala are selected purposively. The selection of six districts was based on following criteria:

- Cover districts from northern, central and southern regions
- Cover districts from coastal, plain and hilly regions
- Cover best performing district and poor performing district in terms of health indicators

The selected six districts were Alappuzha, Kottayam, Malappuram, Pathanamthitta, Thiruvananthapuram and Thrissur. From the selected six districts Public Health Institutions such as District Hospitals, Community Health Centres (CHCs), Primary Health Centres (PHCs) and Sub Centres

(SCs) along with the respective Panchayati Raj Institutions (PRIs) was studied in detail. The selection of these institutions was carried out using random sample method.

1.5.2 Reference Period of Study

The primary data covered the period from 2005 to 2012. The secondary data covered the period after the enactment of 73rd Constitution Amendment Act, 1992.

1.6 Statistical Design

The methodology adopted for collection of required data consists of following:

1.6.1 Primary Data: Out of 14 districts in Kerala six districts were selected for the field study. Utmost care was given to cover districts from northern, central and southern regions and also from districts in coastal, plain and hilly regions. Moreover, categories of best performing district and poor performing district in terms of health indicators was also included (See Table: 1.1)

Table 1.1
Selection of Districts for Field Study

Total number of districts in Kerala	14
Number of districts covered under sample study	6
Criteria for selection of districts purposively	<ul style="list-style-type: none">• Cover district from northern, central and southern regions• Cover district from coastal, plain and hilly regions• Cover best performing district and poor performing district in terms of health indicators
Selected Districts	<ul style="list-style-type: none">• Alappuzha• Kottayam• Malappuram• Pathanamthitta• Thiruvananthapuram• Thrissur

From the selected six districts different tiers of Public Health Institutions were taken for the detailed study. These Public Health Institutions are classified into four broad categories as follows:

- District Hospital
- Community Health Centre(CHC)/ Taluk Hospital
- Primary Health Centre (PHC)
- Sub Centers(SC)

All the categories of Public Health Institutions were covered in the survey. From each district, 1 District Hospital, 2 Community Health Centres / Taluk hospitals, 4 Primary Health Centres and 6 Sub Centres were taken. Thus a total of 6 District Hospitals, 12 Community Health Centres / Taluk Hospitals, 24 Primary Health Centres and 36 Sub Centres were studied. The selection of District Hospitals, Community Health Centres (CHCs)/Taluk Hospital, Primary Health Centres (PHCs) and Sub Centres (SCs) was carried out using random sample method (See Table 1.2).

From Public Health Institutions, respondents were medical officers, health officials (other than medical officers), health workers and patients/beneficiaries. From 96 medical officers 78 were from Allopathic Institutions and 18 from Ayurvedic and Homeopathic institutions. From 96 health officials/health workers (other than medical officers) 78 were from Allopathic Institutions and 18 from Ayurvedic and Homeopathic Institutions. A total of 612 patients/beneficiaries that comprised of 540 from Allopathic Institutions and 72 from Ayurvedic and Homeopathic institutions were covered under survey.

Table 1.2

Sample Survey: Selection of Public Health Institutions

Public Health Institutions	Health Institutions (No)	Medical Officers of PHI (No)	Health officials/health workers (other than medical officers) (No)	Patients/beneficiaries (No)
District Hospital	6	6	6	120
CHC/Taluk Hospital	12	12	12	120
PHC	24	24	24	120
SC	36	36	36	180

TOTAL (a)	78	78	78	540
Ayurvedic Hospitals /Dispensaries	12	12	12	60
Homeo Hospitals /Dispensaries	6	6	6	12
TOTAL(b)	18	18	18	72
Total Public Health Institutions ((a)+(b))	96	96	96	612

Note: Ayurvedic and Homeo hospitals / dispensaries are covered under the survey as these institutions are also transferred to PRIs

After the selection of Public Health Institutions the respective Panchayati Raj Institutions (PRIs) were taken for a detailed analysis. The selected Public Health Institutions were located within the jurisdiction of the selected PRIs.

Table 1.3

Sample Survey: Selection of Panchayati Raj Institutions

Panchayati Raj Institutions	Panchayati Raj Institutions (No)	Elected Representatives, Officials of PRIs, NGOs Representatives, etc (No)
District Zilla Panchayats	6	30
Intermediate Block Panchayat	12	60
Village Gram Panchayat	24	120
Total Panchayati Raj Institutions	42	210

All the three tiers of PRIs in the selected districts were studied. As shown in Table: 1.3, one district (Zilla) Panchayat, two intermediate (Block) Panchayats and four village (Gram) Panchayats from each selected district was covered under the survey. Thus a total of six district (Zilla) Panchayat, 12 intermediate(Block) Panchayats and 24 village(Gram) Panchayats making a total of 42 PRIs were studied. Data was collected from 5 respondents from each tier of Panchayati Raj Institutions making a total of 30 respondents from District(Zilla) Panchayats, 60 from Intermediate (Block) Panchayat and 120 from Village (Gram) Panchayat. A total of 210 respondents were covered under this category.

Our sample survey, covering various stakeholders, elicited information from a total of 1014 respondents (See Table 1.4).

Table 1.4
Sample Survey: Different Categories of Respondents

Category	Respondents
Medical Officers of PHI and Health officials/health workers (other than medical officers) in Public Health Institutions	192
Patients/beneficiaries in Public health Institutions	612
Elected Representatives, Officials in PRIs, NGOs representatives etc.	210
Total Respondents	1014

Note: Ayurvedic and Homeo hospitals / dispensaries are covered under the survey as these institutions are transferred to PRIs

1.6.2 Secondary Data: In addition to primary data, secondary data was used in the study. Various types of secondary data including studies, reports and data prepared by government and nongovernmental organizations were used for the study. The secondary data covered the period after the enactment of 73rd Constitution Amendment Act, 1992. The data include State Panchayati Raj Act of Kerala along with various amendments and executive orders, etc. Relevant studies, reports and data prepared by government and non-governmental organizations were used for the study.

1.6.3 Questionnaires: Four types of structured questionnaires were used to collect primary data. Broad content of the questionnaires are given below

- Medical Officers of PHI
- Health officials/health workers (other than medical officers)
- Patients/ Beneficiaries
- Elected Representatives, Officials in PRIs, NGOs representatives etc.

Questionnaire - 1 : Medical Officers of PHI

The questionnaire sought the particulars from medical officers of each PHI. It was served to medical officers of district hospitals, community health centers/taluk hospitals, primary health centers and sub centres apart from State health officials, Anganwadi workers, and Public Health Workers. It attempted to gather the following information:

- Hospitals Facilities : Availability vis-à-vis requirement of hospital infrastructure facilities
- Hospitals Facilities : Availability vis-à-vis requirement of manpower inputs
- Annual admissions, outpatient load, inpatient load, medico-legal cases, deaths, Intensive Care Unit (ICU) admissions, surgeries (major and minor) and X-rays, ultrasound scans, ECGs and laboratory tests performed
- Patient referrals (in & out)
- Qualifications of staff
- Powers, controls and responsibilities of staff
- Staff : Time use pattern
- Number of patients seen during the a specific period
- Advantages and disadvantages of the hospital
- Steps to be taken to improve efficiency
- Duality of responsibilities and controls in health care system
- The impact of duality of responsibilities and controls in health care system
- Problems and deficiencies on account of duality of controls and responsibilities
- Suggestion for improvement in health delivery system.

Questionnaire - 2 : Health Officials /Health Workers (Other than Medical Officer)

This questionnaire sought detailed information from health officials and Health workers other than medical officers. The questionnaire was served to the health Staff of district hospitals, community health centers/ Taluk hospitals , Primary health centers and sub centres . These include State government health Staff, Anganwadi workers, Primary Health Workers, Public Health Workers. It tried to collect the following information:

- Hospitals Facilities : Availability vis-à-vis requirement of hospital infrastructure facilities
- Hospitals Facilities : Availability vis-à-vis requirement of manpower inputs
- Advantages and disadvantages of the hospital

- Steps to be taken to improve efficiency
- Duality of responsibilities and controls in health care system
- The impact of duality of responsibilities and controls in health care system
- Problems and deficiencies on account of duality of controls and responsibilities
- Suggestion for improvement in health delivery system.

Questionnaire - 3 : Patients/beneficiaries

This questionnaire sought the following particulars from beneficiaries of all the categories of PHIs covered under the survey:

- Social classes, gender and age groups
 - Distance of residence from the health institution
 - Type of care sought
 - Reason for choosing the health institution
 - Referral status (i.e., who referred the patient to the health institution)
 - Services/materials received from the health institution
 - Prescription details (i.e., number of drugs, materials, tests ordered to be bought from elsewhere)
 - Ability of the patients to buy those prescriptions
 - User fee paid, if any
 - Care seeking behavior (i.e., where does he/she go for care usually)
 - Length of stay (for inpatients)
 - Quality of care (various attributes covering diagnosis, treatment, availability of medicines & facilities and staff behavior)
 - Availability vis-à-vis requirements of physical and manpower inputs
- Opinion /first hand information about the specific facilities at the local level
- Opinion of the patients who are using the services
- Suggestion for improvement in health delivery system

Questionnaire - 4 : Elected Representatives, Officials in PRIs, NGOs Representatives etc.

This questionnaire sought the following particulars from elected representatives and officials of PRIs, State Panchayat Officials and representatives of NGOs. It elicited the following information:

- Devolution of functions, funds and functionaries to PRIs in health care system

- Powers , controls and responsibilities of PRI elected representatives in the management of Public Health Institutions
- Powers , controls and responsibilities of PRI officials in the management of Public Health Institutions
- Duality of responsibilities and controls in health care system
- Problems and deficiencies on account of duality of controls and responsibilities
- Suggestion for increased participation of PRIs in health delivery system.
- Suggestion for improvement in health delivery system

Checklist for Focus Group Discussion: Data was collected from a number of Focus Group Discussions (FGDs) in all the six districts. A separate check list was used to conduct FGDs.

1.7. Major variables for Data Collection

Decentralization of any sector, and in particular the health care sector, depends to a large extent on the vision from the top and perception of the administrative and political process from the bottom. The perception of the elected representatives of local government institutions and the administrative functionaries will be instrumental in operationalizing decentralization at that level. This study seeks to analyse decentralization of the health care sector and the associated problems as perceived by the elected members and administrative functionaries. The following are the major variables to be collected through field survey.

- Devolution of functions, funds and functionaries to PRIs in health care system
- Powers , controls and responsibilities of PRI elected representatives in the management of Public Health Institutions
- Powers , controls and responsibilities of PRI officials in the management of Public Health Institutions
- Powers , controls and responsibilities of health Officials
- Duality of responsibilities and controls in health care system
- Public Health Institutions - Availability vis-à-vis requirement of physical and manpower inputs
- Admissions of patients in the hospital , outpatient load, inpatient load, medico-legal cases, deaths, Patient referrals
- Qualifications of staff, Responsibility of staff - Time use pattern, Number of patients seen during a specific period

- Social classes, gender and age groups of patients/beneficiaries
- Distance of residence from the health institution
- Quality of care (various attributes covering diagnosis, treatment, availability of medicines & facilities and staff behavior).

1.8. Data Collection and Analysis

We have collected data and information from cross section of stakeholders of Public health delivery system in Kerala. They include elected representatives, doctors, paramedics, other support staff of the health care delivery points and of course the general public. The views of the stakeholders are taken to assess the role of communities, PRIs and DHS / Indian system of medicine in the management of PHIs , direct accountability of public health and health care institutions and efficiency of public delivery system, the functioning of dual responsibilities and controls, , efficiency in the management of resources and interagency coordination. Data was collected through individual interviews and discussions and focus group interviews . Different categories of information were sought from them. The researchers also prepared case notes on the basis of their findings relevant to issues and objectives of the research. Sincere effort was made to record quantitative and qualitative data. The latter was collected through observation – obtrusive and unobtrusive and casual interaction with local residents and detailed discussions beyond the interview schedule. Various types of secondary data have been used for the study. These include books, articles, periodicals and websites of relevant institutions. Findings of various studies on similar projects in other states are reviewed.

All the information collected from the respondents through the interviews and meetings are collated. The used variables are meaningfully co-related to conform to the standard social science research norms. Statistical Package for Social Sciences (SPSS software) is used to analyse the field data.

Chapter- II

PRIs and Functioning of Public Health Institutions in Kerala

In this chapter we try to critique the role of PRIs in health care systems with respect to their powers and responsibilities in the management of public health institutions. Apart from the structure of these Public Health Institutions in the State of Kerala the chapter analyses physical and financial infrastructure of PHIs with special reference to health institutions in six select districts. The chapter is divided in to three sections. The first section deals with devolution of powers to PRIs in the health sector in Kerala. The physical infrastructure of PHIs in the selected six districts is covered in the second section. The third section discusses the financial infrastructure of PHIs in the selected six districts.

2.1 Devolution of Powers to PRIs in the Health Sector in Kerala

In this section we discuss powers and responsibilities of PRIs in the management of public health institutions. The Kerala Panchayat Raj Act, 1994 created three tier Panchayati Raj system by adding two new tiers of Panchayat viz. Block Panchayats and Districts Panchayats to the existing system of single tier Village Panchayats. The three tiers of Panchayats came into existence in the State On 2nd September 1995 and democratic elections were conducted. Subsequently Government issued a comprehensive order transferring various institutions and staff to the three tier Panchayats. It was in February 1996 that the formal transfer of powers and functions to local governments along with institutions including Public Health Institutions was done.

The structure of local government institutions in the state of Kerala is explained in Table 2.1. Rural local governments consist of 999 village / gram panchayats 152 , block panchayats and 14 district panchayats. In respect of urban local governments, the state has 5 municipal corporations and 53 municipalities

Table 2.1

Structure of Local Government Institutions in Kerala : 2012

Category of Local Government Institutions	No
Gram Panchayats	999
Block Panchayats	152
Zilla Panchayats	14
Total PRIs	1165
Municipalities	53
Municipal Corporations	5
Total Urban	58

Source: <http://censusindia.gov.in/> Census of India 2011

The distribution of public health and sanitation functions among three tiers of PRIs is explained in Table 2.2. It is shown that gram panchayats are given dispensaries, primary health centers and sub centers, maternity and child welfare centers, immunization and other preventive measures, family welfare programme and sanitation programme. Community health centre and taluk hospitals are placed under block panchayat. Management of district hospitals, setting up of centers for care of special categories of handicapped and mentally disabled people and co-ordination of centrally and state sponsored programmes at district level are given to zilla panchayat.

Table 2.2

Three Tiers of PRIs and Distribution of Functions

Activity	Gram Panchayat	Block Panchayat	District Panchayat
Public Health and Sanitation	<ul style="list-style-type: none"> • Dispensaries Primary Health Centres and sub Centres • Maternity and child welfare centres • Immunization and other preventive measures • Family welfare programme • Sanitation programme 	<ul style="list-style-type: none"> • Community Health Centre and Taluk Hospitals medicine with in Block. Panchayat 	<ul style="list-style-type: none"> • Management of district hospitals • Setting up of centres for care of special categories of handicapped and mentally disabled people. • Co-ordination of centrally and state sponsored programmes at district level.

Source: *The State of Panchayats 2007-08, An Independent Assessment, Volume-II: State/UT reports, IRMA, MoPR, Government of India, New Delhi*

Details of public health institutions transferred to three tiers of PRIs are shown in table 2.3. Primary centre and sub centre are transferred to gram panchayat while community health centre and taluk hospital are given to block panchayat. District hospitals are placed under zilla panchayat.

Table 2.3

Public Health Institutions Transferred to Three Tiers of PRIs

Name of the Department	Institutions transferred		
	Gram Panchayat	Block Panchayat	District Panchayat
Public Health	<ul style="list-style-type: none"> • Primary Health Centre • Sub Centre 	<ul style="list-style-type: none"> • Community Health Centre • Taluk hospital/Govt. Hospital 	District Hospitals

Source: The State of Panchayats 2007-08, An Independent Assessment, Volume-II: State/UT reports, IRMA, MoPR, Government of India, New Delhi

The transfer of institution under different systems of medicine to local government institutions are presented in Table 2.4.

Table 2.4

Allopathy, Ayurveda and Homeopathy services and Local Government Institutions

Allopathic	General Hospitals not transferred to LGI	District Hospitals are transferred to LGI	Specialty Hospitals transferred to LGI	Taluk Hospitals and Community Health Centers are transferred to LGI	Primary Health Centers are transferred to LGI
Ayurvedic	Nil	District Ayurveda Hospital and Government Ayurvedic Hospital – Transferred to LGI	Special Ayurveda Hospital	Taluk Hospital/Government Ayurveda Hospital	Government Ayurveda Dispensaries- Transferred to LGI
Homeopathic	Nil	Government Homeo Hospital - Transferred to LGI		Taluk Hospital	Government Homeo Dispensaries – Transferred to LGI

A strong network of public health care units is functioning in all the districts of Kerala. Allopathy, Ayurveda and Homeopathy services are available under public health services as listed below:

2.1.1 Allopathic Hospital

All the allopathic dispensaries and hospitals excluding Medical Colleges comes under Department of Health Services, Government of Kerala. It may be noted that Medical Colleges are under Department of Medical Education. The structure of Allopathic hospitals is listed below:

- General Hospital
- District Hospital
- Specialty (W & C Hospital, MHC, TB Hospital, LEP etc.)
- Taluk Hospital
- Community Health Centre
- Public Health Centre (24x7)
- Public Health Centre
- Sub Centre
- Others (TBC Others)

General hospitals and District hospitals are the secondary or tertiary level of institutions. They are considered as referral centers with specialized health care delivery for all types of specialties and super specialties. As far as Taluk Head Quarters Hospitals are considered, they are the first referral hospitals with facilities to deliver all types of specialties and unit system. CHCs or government hospitals are the institutions cover Specialties such as gynecology, medicine, pediatrics, surgery and anesthesiology. PHCs are treated as the primary health care delivery institutions rendering Preventive, Promotive and Curative services. Sub Centers deliver the primary health care and surveillance activities. It is the peripheral health unit.

The District Medical Officer coordinates the health services under Allopathy. All the hospitals under the Health Services Department with the exception of General Hospitals were transferred to local government institutions. General hospital comes under the direct control of Department of Health Services, Government of Kerala and local government institutions plays no role in the operation and management. Apart from these institutions there are District Hospitals, Taluk Hospitals, Community Health Centres, Public Health Centres, Sub Centres under Allopathic sector. Panchayati raj institutions

and urban local bodies are given the responsibility for operation and management of these institutions. While district hospitals come under district Panchayat, Taluk Hospitals are placed under Municipality. Similarly, block Panchayat controls community health centre. It is a responsibility of Village Panchayat to control Public Health Centers and Sub Centers.

2.1.2. Ayurvedic Hospitals

Apart from Allopathy, Ayurveda has got vast acceptance among the people in the state. All the Ayurvedic dispensaries and hospitals comes under Indian System of Medicine (ISM) Department. The District Medical Officer (ISM) is the coordinating officer under Ayurveda. The structure of PHIs under Ayurveda is as follows:

- District Hospitals
- Taluk Hospitals
- Dispensaries

2.1.3. Homeopathic hospitals

Homeopathy has also got vast recognition among the people in the state. All the homeopathic dispensaries and hospitals come under Directorate of Homeopathic Government of Kerala. There is a District Medical Officer for Homeopathy in each district. The structure of PHIs under Homeopathy is as follows:

- District Hospitals
- Taluk Hospitals
- Dispensaries

Let us assess the different aspects of the transfer to Public Health Institutions to PRIs in Kerala. The devolution of powers entails transfer of funds, functions and functionaries.

The devolution of functions, funds and administrative autonomy to local bodies is the bedrock of decentralization (Oommen, M.A., 2004). In Kerala all 29 subjects mentioned in the Eleventh Schedule of the Constitution are transferred to the PRIs and their functions are clearly demarcated among the three tiers. Most of the institutions and functions relating to social and human development are transferred to local governments in Kerala while in health sector all Public Health Institutions barring medical colleges and big regional hospitals are moved to the local government institutions (John, 2006). The basic

principle adopted in Kerala is to devolve funds to match the functions. While devolving funds, the untied nature of funds along with predictability, certainty, fairness, equity, zero discretion and quality are important considerations. The local governments in Kerala know well in advance about their available resources in each year through the State Government budget wherein each local self-government's share is included. It is significant to note that this budgetary allocation to each local government institution cannot be changed through an executive decision. Another noteworthy feature is a formula based devolution of Kerala state preventing patronage and ensuring certainty, fairness and equity. The source of funds of a village panchayat includes own taxes, shared taxes, non-tax revenue, grants, loans and advances. It is the village panchayats which get the major share of the grants with nearly 70 percent of the rural share going to them and the district and block Panchayats getting 15 percent each (George, 2007).

In respect of devolution of powers to PRIs in respect of Public Health Institutions functionaries/ personnel are not yet transferred to them. As personnel are not transferred to local government institutions, doctors and other public health officials of Allopathy, Ayurveda and Homeopathy are still under the directorate of health services, Indian System of Medicine Department and Directorate of Homeopathic respectively

Regular employees of PHIs continue as state government employees under the respective departments. However, PRIs are given a certain level of control over these functionaries/ personnel. However, their controls and responsibilities are limited. Both local government institutions and the respective state departments- Director of Health Services and Indian system of medicines- have controls and responsibilities. This results in a kind of "dual control":

Figure 2.1

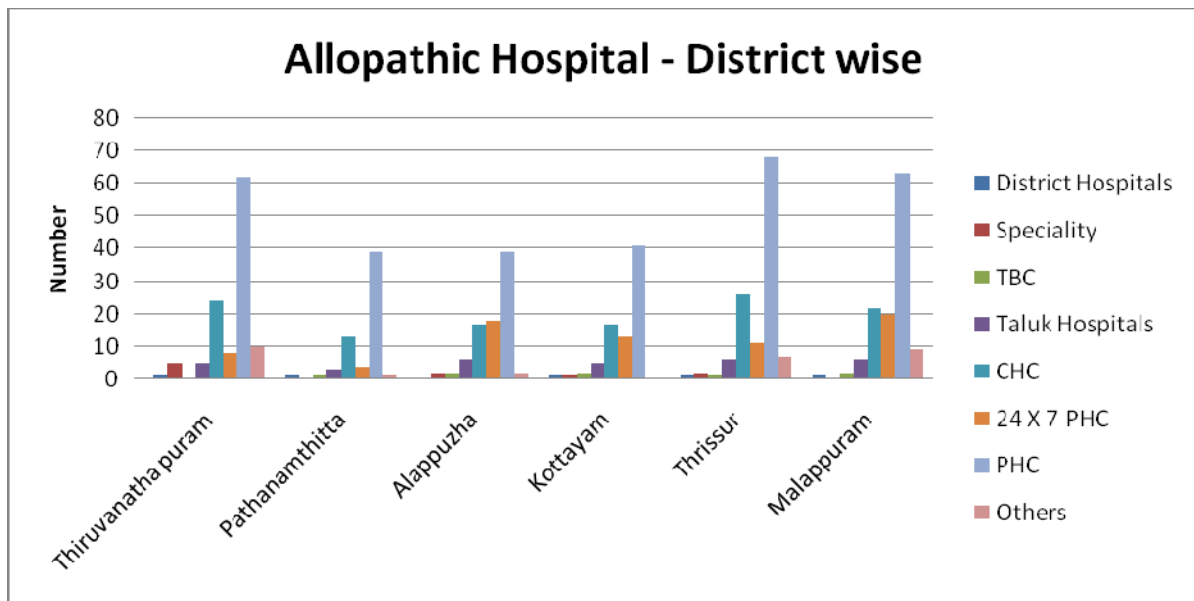
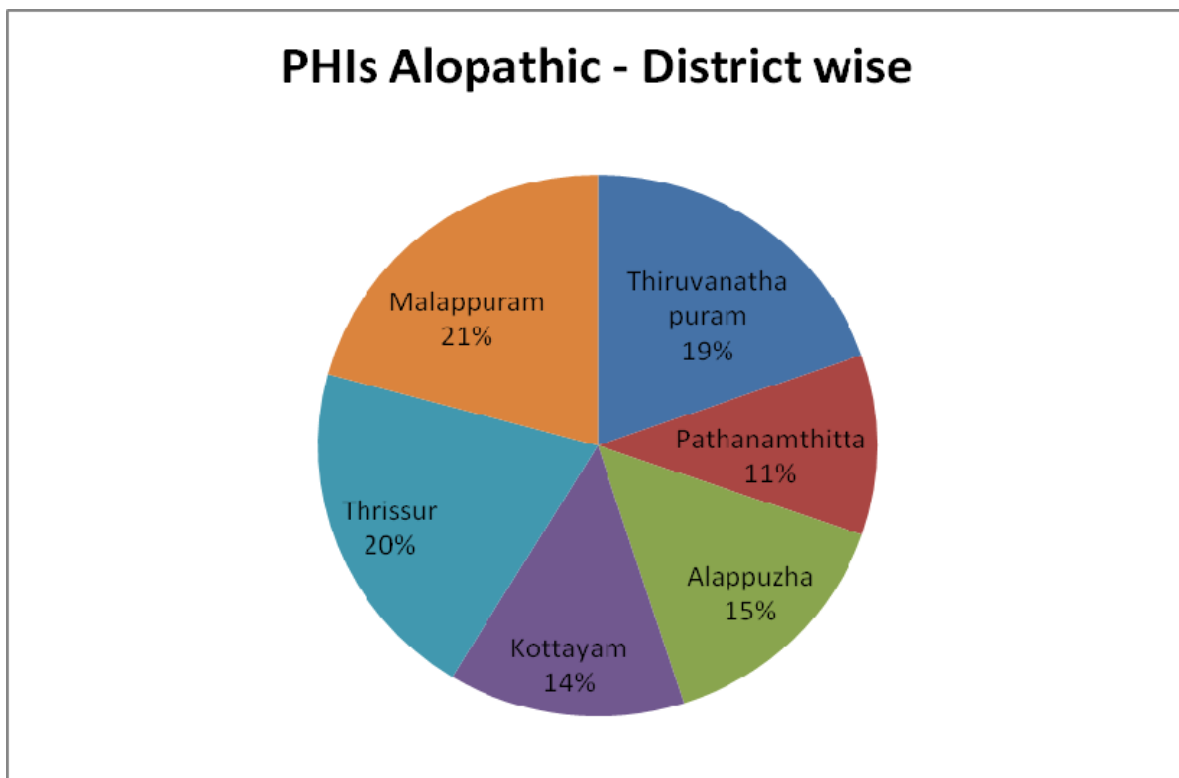


Figure 2.2



2.2. Demographic Profile and Physical Infrastructure of PHIs in the Selected Six Districts

2.2.1 Demographic Profile of the Selected Districts

The demographic profile of the selected districts under the field survey is reported in detail in Annexure I. A brief of the demographic profile is as follows:

Thiruvananthapuram is the southernmost district of the Indian state of Kerala. The capital city of Kerala is the part of this district. The district has an area of 2192 sq km with a population of 3,307,284 (as per the 2011 census), the second most populous district in Kerala after Malappuram district.

Pathanamthitta district is in the southern part of the state of Kerala. The district has an area of 2,642 sq.km with a population of 11,95,537.

Alappuzha is one of the 14 districts in the state of Kerala in India. The district is a widely known tourist destination, and is well-known for its coir factories. Alappuzha is strongly connected by waterways to various other parts of Kerala, including the famous tourist destination, Kumarakom.

Kottayam is one of the 14 districts in the state of Kerala with an area of 2,208 sq.km and has population of 19,79,384.

Thrissur is one of the 14 districts of Kerala which is in the central part of the state it accounts for 10 per cent of Kerala's population. It has an area of 3,032 sq.km with a population of 31,10,327.

Malappuram is one of two Muslim majority districts or Union Territories in south India other being Lakshadweep. The present development, both economical and social, of the Malappuram district owes to the Kerala Gulf Diaspora. It has with an area of 3,550 sq.km and a population of 41,10,956.

2.2.2 Physical infrastructure of PHIs: District wise Analysis

Thiruvananthapuram has a network of 116 Allopathic Public Health Institutions with a capacity of 4853 beds. It includes one District Hospital, 5 Specialty Hospitals, 5 Taluk Hospitals, 24 Community Health Centres, 8 PHCs with 24 X 7 facility and 62 PHCs without 24X7 service facility. Ayurveda PHIs in Thiruvananthapuram District includes one District Ayurvedic Hospital, 11 Government Ayurvedic Hospitals,

2 Special Ayurvedic Hospitals and 64 dispensaries. Homeopathy hospitals in Thiruvanthapuram district include 4 Government Homeo Hospital and 52 Government Homeo Dispensaries. There are 440 medical officers, 8 dentists, 166 Senior nurses, 662 Junior nurses and 71 lady health inspectors.

Pathanamthitta has a network of 64 Allopathic Public Health Institutions with a capacity of 1942 beds. It has a total of 64 PHIs with one District Hospital, one Specialty Hospital, 3 Taluk Hospitals, 13 Community Health Centers, 4 PHCs with 24 X 7 facility and 39 PHCs without 24X7 service facility. Ayurveda PHIs in Pathanamthitta District includes one District Ayurvedic Hospital, 2 Government Ayurvedic Hospitals, 2 Special Ayurvedic Hospitals and 40 dispensaries. Homeopathy hospitals in Pathanamthitta district include one Government Homeo Hospital and 26 Government Homeo Dispensaries. The staff pattern of Allopathic PHIs in Pathanamthitta are 216 medical officers, 4 dentists, 41 Senior nurses, 288 Junior nurses and 44 lady inspectors.

Alappuzha District has a total of 193 PHIs comprising of 87 Allopathic 66 Ayurvedic and 40 Homeopathic. Under Allopathic there are one General Hospital, one District Hospital, 4 Specialty Hospitals, 6 Taluk Hospital, 17 Community Centers, 18 Primary Health Centers with 24x7 facility and 39 Primary Health Centers without 24 X 7 Facility. Ayurveda PHIs in Alappuzha District includes one District Ayurvedic Hospital, 8 Government Ayurvedic Hospitals, one Special Ayurvedic Hospital and 56 dispensaries. Homeopathy hospitals in Alappuzha includes 3 Government Homeo Hospitals and 37 Government Homeo Dispensaries. The staff pattern of PHIs under allopathy are 276 medical officers and 6 dentists against 654 nurses.

Kottayam district has a network of 81 Allopathic Public Health Institutions with a capacity of 2524 beds. It has a total of 81 PHIs with one General Hospital, one District Hospital, 3 Specialty Hospitals, 5 Taluk Hospitals, 17 Community Health Centers, 13 Primary Health Centers with 24x7 facility and 41 Primary Health Centers without 24x7 facility. It has a strong network of Ayurveda PHIs. It includes one District Ayurvedic Hospital, 8 Government Ayurvedic Hospitals and 52 Ayurvedic dispensaries. Homeopathy PHIs in Kottayam include 3 Government Homeo Hospitals and 44 Government Homeo Dispensaries. The Homeopathic hospital network in the district has a total of 47 PHIs with 175 beds capacity. The staff pattern of PHIs under Allopathy are 260 medical officers, 5 dentists, 166 senior nurses, 662 junior nurses and 61 lady inspectors.

Thrissur district has a network of 122 Allopathic Public Health Institutions with a capacity of 3519 beds. These PHIs cover one District Hospital, 3 Specialty Hospitals , 6 Taluk Hospitals, 26 Community Health Centres , 11 PHCs with 24 X 7 facility and 68 PHCs without 24X7 service facility. Ayurvedic PHIs in Thrissur District include one District Ayurvedic Hospital, 14 Government Ayurvedic Hospitals, 1 Special Ayurvedic Hospital and 79 dispensaries. Homeopathy hospitals in Thrissur district include one Government Homeo Hospital and 35 Government Homeo Dispensaries. There are 393 medical officers, 8 dentists, 91 Senior nurses, 417 Junior nurses .

Malappuram has a network of 123 Public Health Institutions with a capacity of 3705 beds. It has one District Hospital, 2 Specialty Hospitals , 6 Taluk Hospitals, 22 Community Health Centers , 20 PHCs with 24 X 7 facility and 63 PHCs without 24X7 service facility. Ayurvedic PHIs of Malappuram District include one District Ayurvedic Hospital, 8 Government Ayurvedic Hospital and 68 dispensaries. Homeopathy hospitals in Malappuram include 2 Government Homeo Hospitals and 42 Government Homeo Dispensaries . The staff pattern of PHIs under Allopathy in Malappuram district is explained in Table 2.19. There are 307 medical officers , 7 dentists, 74 Senior nurses, 414 Junior nurses and 98 lady inspectors.

Details of Allopathic PHIs, Ayurvedic PHIs and Homeopathic PHIs in all the six districts are compiled in Annexure-II, Annexure-III and Annexure-IV respectively. Particulars of medical and paramedical personnel under DHS are presented in Annexure-V.

2.2.3 Physical infrastructure of PHIs: Comparative Analysis

It is interesting to understand that Thrissur district has the largest number Public Health Centres followed by Malappuram and Thiruvanthapuram. (See Fig. 2.1). Another signification aspect is the dominance of Malappuram district (21%) in the share of total number Public Health Institutions in the State of Kerala followed by Thrissur (20%) and Thiruvanthapuram (19%) (See Fig. 2.2).

The number of inpatients (IP) and outpatients (OP) for the year 2009 to 2010 in Allopathic PHIs of the 6 districts under survey are reported in Table 2.5 (See Figures 2.3 and 2.4 also). In Thiruvanthapuram district number of IP registered a marginal increase while Thrissur district witnessed a substantial increase in its number during 2009 - 2010. In respect of number of OP, districts of Thiruvanthapuram, Pathanamthitta, Alappuzha and Malappuram registered considerable increase during the same period.

Table 2.5

District-wise details of IP, OP in hospital/dispensaries under DHS: 2009-2010

District	2009		2010	
	IP	OP	IP	OP
Thiruvananthapuram	223,845	6,339,263	228,541	6,355,689
Pathanamthitta	49,270	2,146,061	87,805	2,593,771
Alappuzha	116,315	4,385,913	91,976	5,161,234
Kottayam	104,293	5,888,713	21,762	775,156
Thrissur	96,858	4,450,470	4,796,394	161,921
Malappuram	133,210	4,133,532	187,368	5,010,199
Total	723,791	27,343,952	5,413,846	20,057,970
State Total	1,405,500	50,769,271	6,258,864	6,476,561

Source : <http://spb.kerala.gov.in/>

Figure 2.3

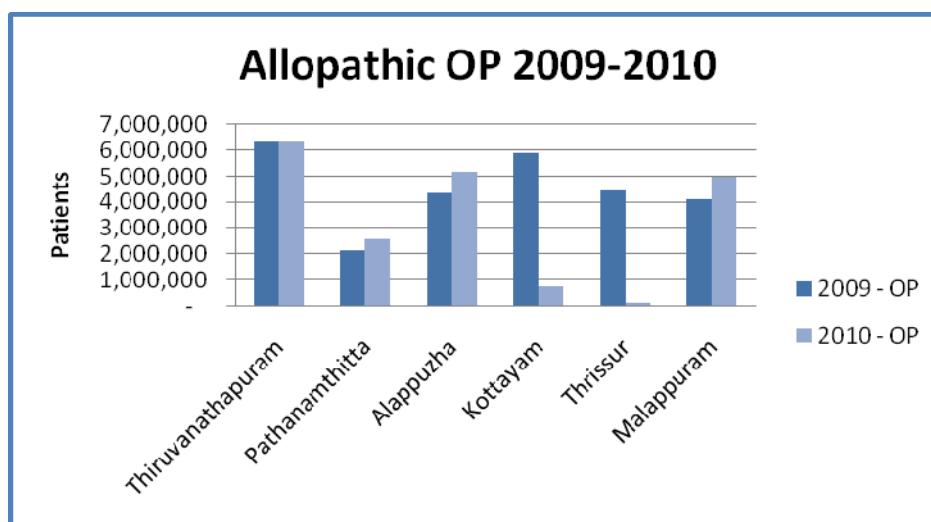
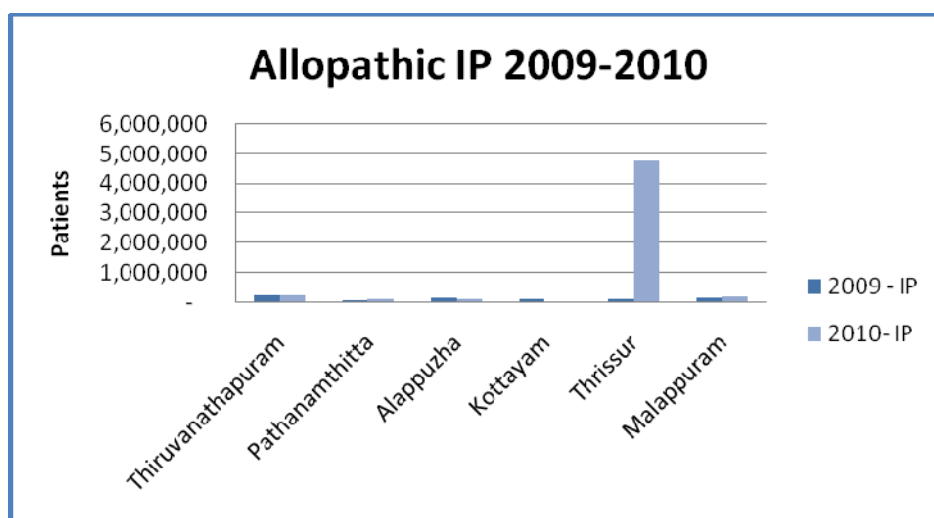


Figure 2.4



The number of inpatients (IP) and outpatients (OP) in Ayurvedic PHIs for the year 2010 are reported in Table 2.6 (See Figures 2.5 and 2.6 also).

Table 2.6

District-wise distribution of IP and OP under Ayurvedic system of Medicine in Kerala: 2010

District	2010	2010	2010
	Ayurvedic IP	Ayurvedic OP	Ayurvedic Dispensary OP
Thiruvananthapuram	3,115	61,215	1,789,282
Pathanamthitta	1,562	481,617	197,532
Alappuzha	1,618	38,115	21,619
Kottayam	1,711	323,075	1,083,529
Thrissur	2,135	32,617	1,518,171
Malappuram	1,921	32,618	1,231,354
Total	12,062	969,257	5,841,487
State Total	26,652	2,882,697	1,32,08,837

Source : <http://spb.kerala.gov.in/>

Figure 2.5

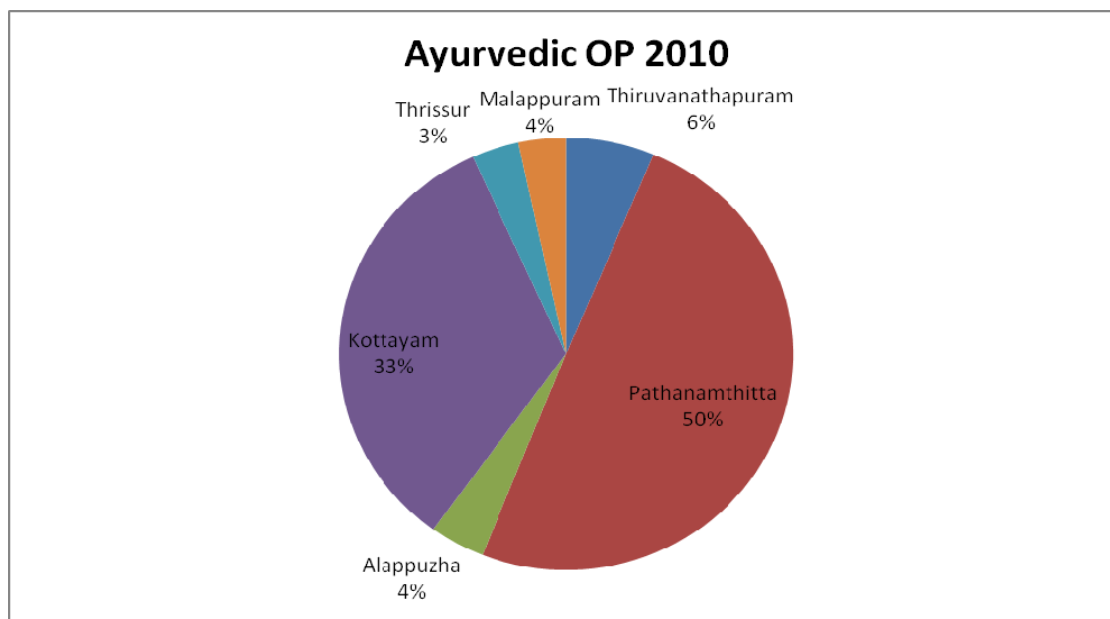
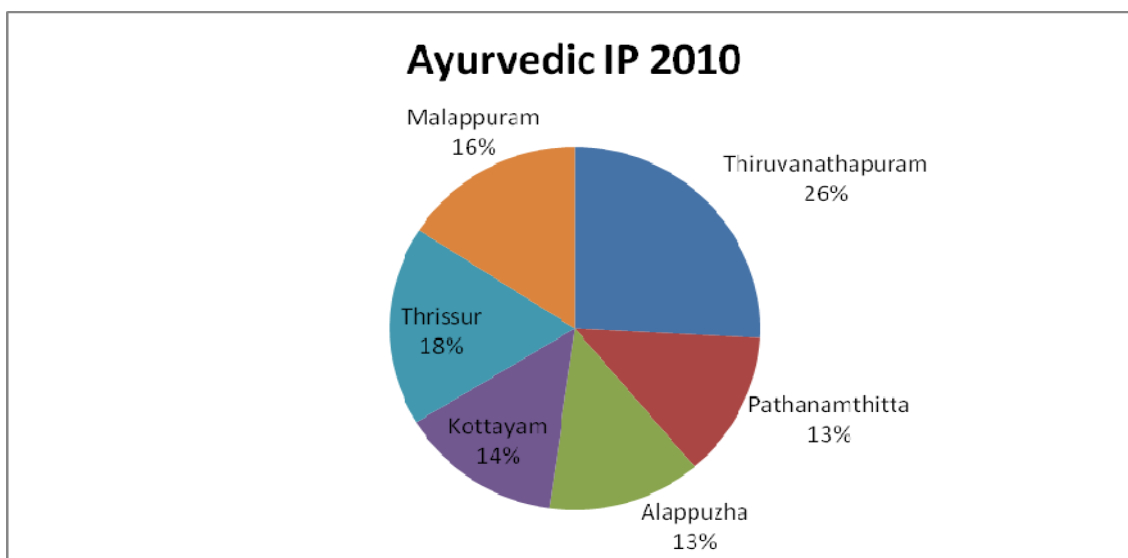


Figure 2.6



The number of inpatients (IP) and outpatients (OP) for the year 2010 in Homeopathy PHIs of the 6 districts under survey are reported in Table 2.7. (Also See Figures 2.7 and 2.8).

Table 2.7

District-wise distribution of IP and OP under Government Homeopathy Directorate: 2010

District	2010	2010
	IP	OP
Thiruvananthapuram	1,035	1,18,202
Pathanamthitta	-	37,227
Alappuzha	310	11,30,048
Kottayam	799	1,38,002
Thrissur	201	99,652
Malappuram	228	1,26,689
Total	2,573	1,649,820
State Total	9,223	2,521,663

Source : <http://spb.kerala.gov.in/>

Figure 2.7

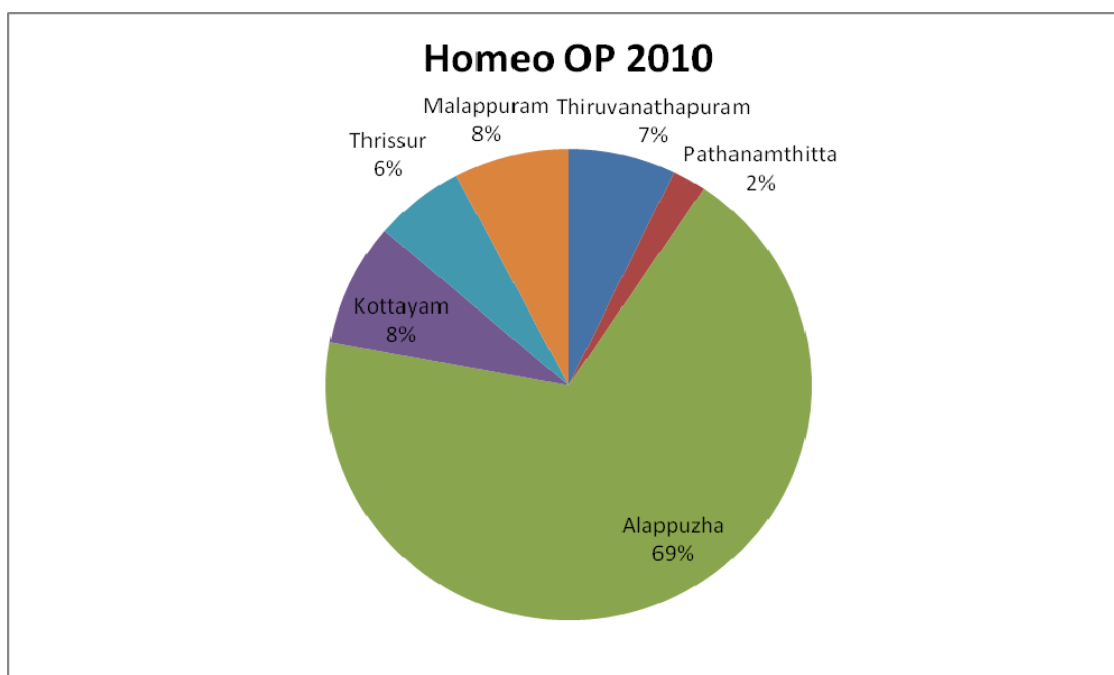
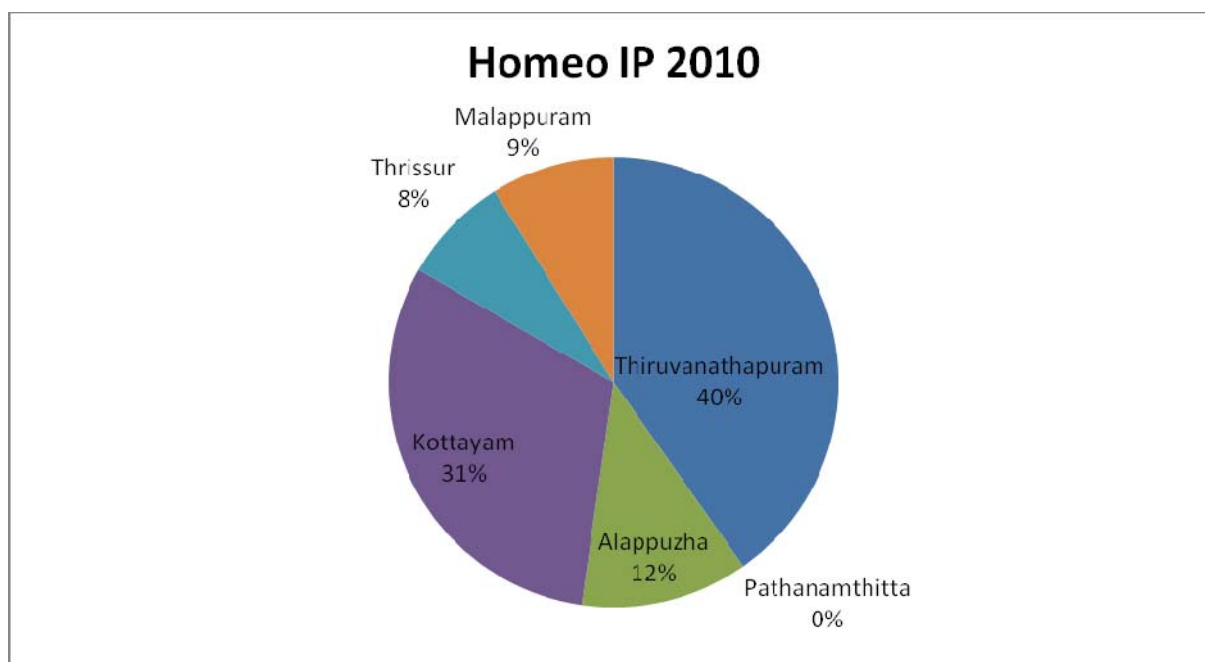


Figure 2.8



District wise details of Medical and Paramedical Personnel under Ayurvedic System of Medicine for the year of 2010 is reported in Table 2.8. A total of 1023 personnel are posted in these PHIs in Kerala while a total of 483 in the districts under survey.

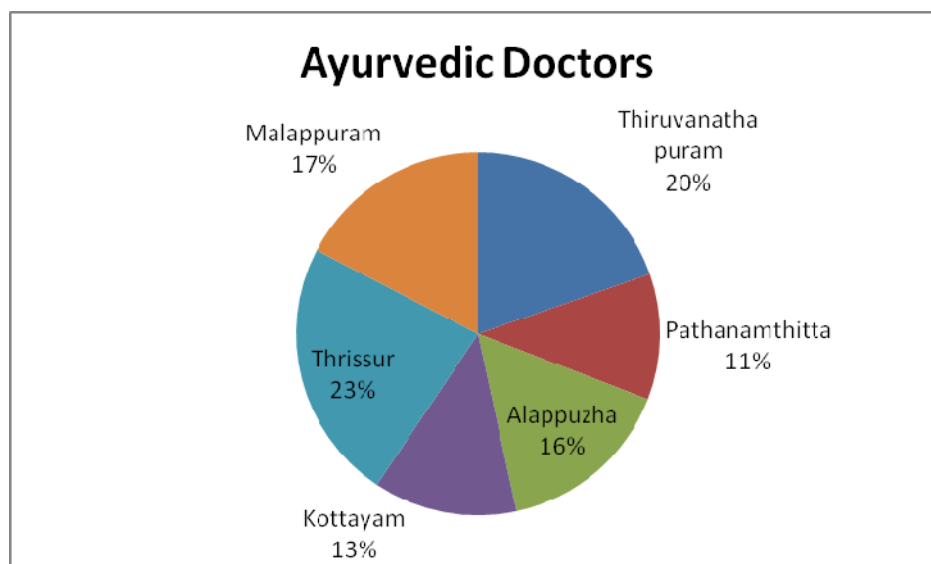
Table 2.8

District wise details of Medical and Paramedical Personnel under Ayurvedic System of Medicine
Kerala 2010

District	Doctors
Thiruvananthapuram	95
Pathanamthitta	54
Alappuzha	76
Kottayam	62
Thrissur	112
Malappuram	84
Total	483
State Total	1023

Source : <http://spb.kerala.gov.in/>

Figure 2.9



District wise details of Medical and Paramedical Personnel under Homeopathy for the year of 2010 is reported in Table 2.9. A total of 493 personnel are posted in these PHIs in Kerala while a total of 270 in the districts under survey.

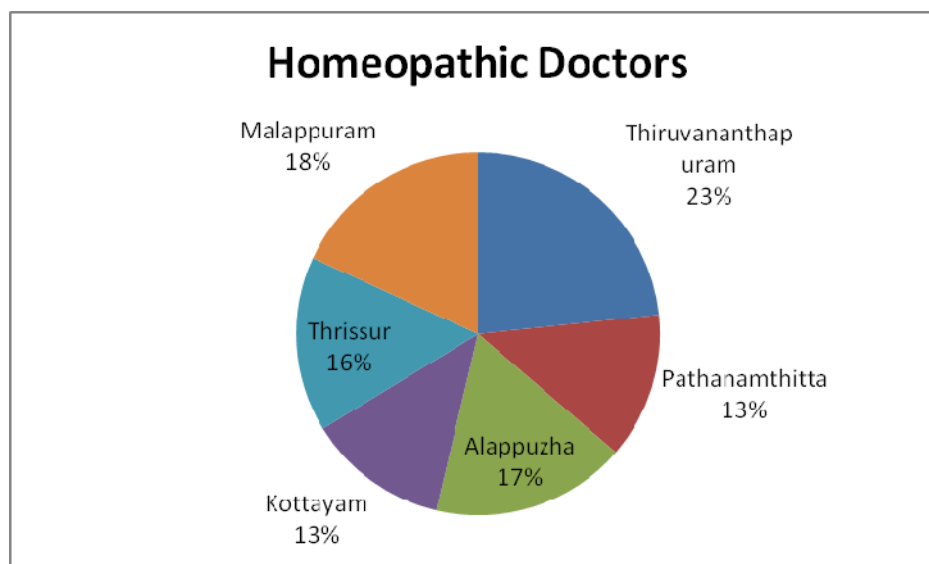
Table 2.9

District wise details of Medical and Paramedical Personnel under Homeopathy Directorate: 2010

District	Doctors
Thiruvananthapuram	63
Pathanamthitta	35
Alappuzha	47
Kottayam	34
Thrissur	42
Malappuram	49
Total	270
State Total	493

Source : <http://spb.kerala.gov.in/>

Figure 2.10



2.2.4 Network of Medicine Distribution

Kerala has a strong network of Procurement and Distribution of drugs and medical equipments. Kerala Medical Services Corporation Limited (KMSCL) is a Corporation set up by Government of Kerala in 2007 for providing services to the various health care institutions. It is the central procurement agency for all essential drugs and equipments for all public healthcare institutions under the department. KMSCL is procuring drugs worth more than Rs 170 crores and above 250 different types of medical equipments. A network of medical stores are setup by Department of Civil Supplies, Government of Kerala along with each PHI. The name of the medical store is Neethy. These medical stores have a strong presence in most of the PHIs and the purpose is to supply medicines at fair price. The price of items supplied by Neethi is 15 to 20 percent below the market price.

2.3 Devolution of Funds to PRIs in the Health Care System

In Kerala, 33 percent of plan fund is being spent through Panchayati Raj Institutions and urban local government institutions. However, there is no specific sectoral allocation and PRIs are given the freedom to spend fund on schemes in different sectors subject to certain guidelines. Interestingly, State of Kerala has budget windows for PRIs. Currently, only seven States in India - Rajasthan, MP,

Chattisgarh, Kerala, Karnataka, Gujarat and Maharashtra- have budget windows for PRIs. Kerala State budget expenditure for medical and public health for the year 2012-13 stands at Rs. 3856.20 crore which is 14.51 per cent of total development revenue expenditure. The allocation for local government institutions for 2012-13 is Rs. 1052.36 crore. Out of this, the expenditure on medical and public health is Rs. 10.2676 crore registering 0.98 per cent of total allocation to local government institutions. The allocations for different tiers of local government institutions are given in Table: 2.10.

Table 2.10

Budget Allocations for Different Tiers of Local Government Institutions : 2012-13 (Rs. In Thousand)

Tier	Amount
Village Panchayat for health sector	20106.00
Block Panchayats for health sector	28864.30
District Panchayats for health sector	14729.00
Municipalities for health sector	38408.90
Corporations for health sector	568.00
Total for health sector	102676.20
Total Allocation for LSG for all sectors	10523637.20
Allocation (%)	0.98

Source : Government of Kerala, State Budget Brief 2012-13

In the grants made to the local government institutions no provision is included towards payment of salary and allowances of the staff in the offices or institutions transferred to local government institutions. Such expenditure is met from departmental heads of accounts. Centrally sponsored scheme has also been transferred to the Panchayat Raj and Nagara Palika Institutions. Similarly, the Central share of the Centrally Sponsored Schemes transferred to local government institutions is directly given to the Institutions. Hence only the state share for these Schemes is included in the Table 2.10 (Government of Kerala, State Budget Brief 2012-13).

2.4 Financial Infrastructure of PHIs in Select Districts: A Comparative Analysis

2.4.1 Source of Funds of PHIs: Major sources of funds for Public Health Institutions in the state of Kerala comprise of five sources as listed below:

- State Plan and Non-Plan Fund
- Grant from Panchayats/Local Government Institutions
- NRHM Fund
- HMC Fund
- Contributions/Donations from Individuals and Organizations

The sources of funds of PHIs covered under our survey are reported in the Table 2.11. It is significant to understand that all PHIs had received State Plan, Non-Plan Fund, Grant from Panchayats/ local government institutions and NRHM Fund. In respect of HMC Fund some of the PHIs had not maintained it. All the district hospitals have got State Plan, Non-Plan Fund, Grant from Panchayats/ local government institutions , NRHM Fund and HMC fund. About 88 percent district hospitals have got donations/contributions from the public.

Table 2.11

Sources of Funds PHIs in Select Districts: Responses of PHIs(%)

Category of PHI	State Plan and Non-Plan Fund	Grant from Panchayats	NRHM Fund	HMC Fund	Donations
District Hospitals	100	100	100	100	88
Specialty Hospitals/ Special Ayurvedic Hospitals	100	100	100	92	76
Taluk Hospitals/ Government Ayurvedic Hospital/CHCs/ Homeo Hospitals	100	100	100	91	79
PHCs/ Government Ayurvedic Dispensaries/ Homeo Dispensaries	100	100	100	93	67

2.4.2 Financial Infrastructure in Alappuzha District: The financial infrastructure of Allopathic Hospitals in Alappuzha district is explained in Table 2.12. As is evident from the Table expenditure on PHIs increased from Rs. 1,794,033 in 2008-09 to Rs. 3,598,374 in 2010-2011.

Table 2.12

Expenditure on PHIs: Alappuzha District

Year	Amount (Rs.)
2010-2011	3,598,374
2009-2010	2,831,362
2008-2009	1,794,033
Total	8,223,769

Source: Office of District Medical Officer (DMO), Alappuzha

2.4.3 Financial Infrastructure in Kottayam District : The financial infrastructure of Allopathic Hospitals in Kottayam district is explained in Table 2.13. It may be noted that the expenditure on PHIs declined from Rs. 6,191,114 in 2006-07 to Rs. 2,678,068 in 2010-2011.

Table 2.13

Expenditure on PHIs: Kottayam District

Year	Amount (Rs.)
2010-2011	2,678,068
2009-2010	2,787,233
2008-2009	2,393,813
2007-2008	6,400,245
2006-2007	6,191,114
Total	20,450,473

Source: DMO, Kottayam

2.4.4 Financial infrastructure in Malappuram district : The financial infrastructure of Allopathic Hospitals in Malappuram district is shown in Table 2.14. As is evident from the Table the expenditure pattern was quite volatile. The expenditure on PHI declined from Rs. 1305835 in 2006-07 to Rs. 4,07,979 in 2007-08 . Again it had increased to Rs. 5,363,845 in 2010-2011.

Table 2.14

Expenditure on PHIs: Malappuram District

Year	Amount (Rs.)
2010-2011	5,363,845
2009-2010	1,773,917
2008-2009	519,167
2007-2008	407,979
2006-2007	1,305,835
Total	9,370,743

Source: DMO, Malappuram

2.4.5 Financial Infrastructure in Pathanamthitta district : The financial infrastructure of Allopathic Hospitals in Pathanamthitta district is presented in Table 2.15. It is quite significant to note that annual expenditure on PHIs registered wide variations during the period from 2006-2007 to 2009-10.

Table 2.15

Expenditure on PHIs: Pathanamthitta District

Year	Amount (Rs.)
2010-2011	N.A
2009-2010	4,265,608
2008-2009	1,758,137
2007-2008	9,113,144
2006-2007	7,588,911
Total	22,725,800

Source: DMO, Pathanamthitta

2.4.6 Financial Infrastructure in Thiruvanthapuram district : Table 2.16 shows the financial infrastructure of Allopathic Hospitals in Thiruvanthapuram district. It is interesting to note that expenditure in 2008-09 witnessed an abnormal increase.

Table 2.16

Expenditure on PHIs: Thiruvanthapuram District

Year	Amount (Rs.)
2010-2011	2,454,362
2009-2010	3,619,902
2008-2009	697,738,160
2007-2008	1,268,693
2006-2007	4,734,422
Total	709,815,539

Source: DMO, Thiruvanthapuram

2.4.7 Financial Infrastructure in Thrissur District: The financial infrastructure of Allopathic Hospitals in Thrissur district is elaborated in Table 2.17. Unlike other districts, expenditure on PHIs in Thrissur district shows consistency with less volatility during 2006-07 to 2010-11.

Table 2.17

Expenditure on PHIs: Thrissur District

Year	Amount
2010-2011	3,744,733
2009-2010	3,981,658
2008-2009	2,189,238
2007-2008	3,398,857
2006-2007	3,507,227
Total	16,821,713

Source: DMO, Thrissur

Expenditure details on Allopathic PHIs in all the six selected districts are compiled and presented in Table 2.18.

Table 2.18

District wise Expenditure Status from 2006-2011

Districts	2006-07	2007-08	2008-09	2009-10	2010-2011	Average
Thiruvanthapuram	4,734,422	1,268,693	697,738,160	3,619,902	2,454,362	141,963,108
Pathanamthitta	7,588,911	9,113,144	1,758,137	4,265,608	-	5,681,450
Alappuzha	-	-	1,794,033	2,831,362	3,598,374	1,644,754
Kottayam	6,191,114	6,400,245	2,393,813	2,787,233	2,678,068	4,090,095
Thrissur	3,507,227	3,398,857	2,189,238	3,981,658	3,744,733	3,364,343
Malappuram	1,305,835	407,979	519,167	1,773,917	5,363,845	1,874,149
Total	23,327,509	20,588,918	706,392,548	19,259,680	17,839,382	157,481,607

Source: DMO , Various districts.

2.4.8 Block Grants to the Local Self Governments: The Department of Health Services (DHS) provided block grants to the Local Self Governments including PRIs through the concerned DMO for meeting expenses of units transferred. According to Government of Kerala order in November 2008 the 'Block Grants' should be utilized only to meet cost of medicines, medical equipments and dietary articles. In June 2008 the DHS also issued specific instructions in this respect. The Block Grants provided by DHS to the Local Self Governments during the period from 2007-08 to 2009-10 in the non-plan sector are shown in Table 2.19.

Table 2.19

Non-Plan Block Grants provided by DHS to the Local Self Governments: 2007-10

Year	Block Grant (Rs.Lakhs)
2007-08	Nil
2008-09	829.79
2009-10	654.71

Source: Report on the Chief Controlling Officer based audit of health and family Welfare department for the year 2009-10, Government of Kerala

In nutshell, Kerala has a well developed network of PHIs delivering health care services to a significant section of society. Different tiers of PRIs have a critical role in the management of these institutions.

Chapter- III

Role of PRIs and Bureaucracy in Health Care System in the context of Duality of Responsibilities and Controls

In this chapter we discuss the role of different tiers of PRIs in the operation and management of PHIs and essential features of duality of responsibilities and controls in public health care system.

3.1 Duality of responsibilities and controls in Public Health Institutions in Kerala: An overview

All the Public Health Institutions (PHIs) barring medical colleges and big regional hospitals are transferred to either rural or urban local government. As per Kerala Panchayati Raj Act Public Health Institutions in the rural areas are the assets of the concerned PRI. The concerned Medical officer and the staff are under the control of the respective PRI. For instance, Medical officer of a PHC, along with staff, works under the Gram Panchayat. Similarly, the Medical officer of CHC and staff works under the Block Panchayat and the District Medical Officer works under the District Panchayat. While Ayurveda hospital and Homoeopathy hospital are under District Panchayat, Ayurvedic dispensaries and Homoeopathy dispensaries remain with Gram Panchayat.

All District Hospitals, Specialty Hospitals, Community Health Centers, Primary Health Centers and Sub Centers are transferred to PRIs. Cadre staff of these PHIs is controlled by state government. It leads to the dual responsibilities and controls system. Their salary is continuously paid by the Department of Health Services or Department of Indian System of Medicine or Directorate of Homeopathy, Government of Kerala. They are responsible for recruitment, placement and promotion of health personnel and PRIs do not have any role in these activities. However, Government of Kerala has given managerial and part disciplinary control over the staff of PHIs to the concerned PRIs. PRIs, in principle, can assign duties to the staff of the respective Public Health Institutions, review their performance and seek reports. PRIs can impose minor penalties on all staff. But in practice, PRIs are not in a strong position to take action against regular staff who are appointed by state government. In fact, permanent staff of all the PHIs draw salary from the state government and not from local government institutions. Moreover, promotion and transfer are decided by the State Government.

3.2 Responsibilities and Controls of Different Tiers of PRIs

3.2.1 Gram Sabha

Gram Sabhas, in principle, should discuss issues related to public health and sanitation of the panchayat. The staff of PHIs should attend the Gram Sabhas and to clear the doubts of the people. They should take part in the formulation of budget and health plan of the PRIs. The medical officers are the conveners of the Health and Sanitation Working Group. This Working Group is constituted to identify and formulate projects in the health sector according to needs of the poor people. Feedback from our field survey indicated that Gram Sabhas do not play an effective role in discussing the local needs in respect of public health delivery system due to various reasons such as poor participation, lack of seriousness on convening the gram sabhas, etc. However, in each panchayat Standing Committee on Health plays a significant role in dealing with public health delivery system in the respective Jurisdiction. The Standing committee on Health convene meetings of the health staff and discuss the problems and to give action plan to the Panchayat (Vijayanand 2007).

A few case of ineffective Standing Committee on Health are reported during our field survey. However, a large number of Standing Committee on Health were involved actively in dealing with problems related to Public Health delivery system. Similarly, PHIs under Allopathy are managed by PRIs and the Department of Health Services (DHS). PHIs under Ayurveda are under the joint control of PRIs and the department of Indian Systems of Medicine. PHIs under Homeopathy are under the joint control of PRIs and Directorate of Homeopathic Government of Kerala. Gram Panchayats, Block Panchayats and District Panchayats, by and large, carryout the following activities in respect of PHIs under their respective jurisdiction:

- Overall management of PHI
- Maintenance of existing infrastructure including building and equipments
- Building up new infrastructure
- Allot funds for purchase of certain percentage of medicines, equipments and furniture, while a major portion of medicines is supplied out of funds from state government
- Providing a certain amount of funds to meet the salary of health personnel who are appointed on a temporary basis. It may be noted that salary of health persons is paid by state government through the concerned health department.
- Provide rent for building of hospital/dispensaries

- Take corrective measures and suitable actions on the complaints received from patients and public against PHIs.
- Monitor the availability of doctors and medicines in PHIs
- Introduce new projects/ innovative projects
- Funding the purchasing of medicine. PRIs through HMC supplement the purchase of medicines using maintenance funds of PRIs or by mobilizing funds through donation from public.
- Monitor, Drug distribution, organize health camps and health survey

Within the above mentioned framework let us discuss the role of each tier of PRIs in the management of PHI.

3.2.2 Village Panchayat-Providing health services through Primary Health Centers

The village panchayats in Kerala provide health and family welfare services through Primary Health Centers (PHCs) and Sub Centre's (SCs). The Village Panchayat carries out various activities:

- Mosquito Control to prevent epidemics such as such as Malaria, Dengue fever, Chikungunia, Japanese encephalitis, Filaria and other viral diseases..
- Create awareness about environment cleanliness
- The PHCs provide polio vaccines
- Managing Palliative Care Units which provide palliative care to the deserving patients
- Provide the services of specialized doctors by paying out of the funds available to Village Panchayat. This is In addition to the doctors appointed by Department of Health Services, Department of Indian Systems of Medicine, and Directorate of Homeopathy Government of Kerala,
- Organize health surveys and health camps.
- Creation of infrastructure, construction and maintenance of PHCs and SCs
- Provides some amount of funds to purchase essential medicines for the PHC. This is in addition to the medicines procured from state government through Kerala Medical Services Corporation, Government of Kerala.

3.2.3 Block Panchayat: Providing health services through Community Health Centers

The Block Panchayat carry out the following activities to provide health services through Community Health Centers (CHCs).

- Organize health surveys and health camps.
- Construct and maintain infrastructure of CHC
- Block Panchayat provides some amount of funds to purchase essential medicines. This is in addition to the medicines procured from state government through Kerala Medical Services Corporation, Government of Kerala.
- The appointment of the driver of the ambulance of CHC is done by the Block Panchayat. They are also responsible for the maintenance of the ambulance.
- Ensure the availability of doctors.

3.2.4 District Panchayat: Providing health services through District Hospital

The District Panchayat provides health services through District Hospitals (DHs). District Hospital is under the supervision of the District Panchayat. The District Panchayat carries out various activities such as the following activities:

- Creation and maintenance of infrastructure of District Hospital
- Controls Pain and Palliative Care Unit which provide palliative care to the deserving patients.
- Allot NRHM Funds to Primary Health Centres, Community Health Centers and District Hospitals .
- Oversee the availability of doctors in district hospitals.

3.2.5 PRIs: Formulation and Implementation of Health Plans for PHI

The health plan of PRIs covers issues related to water and sanitation, Anganwadis and PHIs in their jurisdiction. Projects related to the creation and upgradation of health infrastructure and some other innovative projects are formulated under the health plan. It is the responsibility of each tier of PRI to prepare health plan for area under their jurisdiction. PRIs facilitate the discussion of health needs of people by organizing meetings of Gram Sabha. With the involvement of working group on Health, Standing Committee on Health formulates the list of projects under health plan. Chairperson of the Standing Committee on Health is the head of this working group while the Medical Officer of the concerned PHI is the convener. Village Panchayat Committee takes final decision based on the funds to be allocated to the health sector and working group firms up the health related project proposals. It is

the responsibility of Village Panchayat to include the finalized proposals in its annual Plan that consists of different sectors. The health projects of PRIs after the vetting by Technical Advisory Committees are sent to the District Planning Committee(DPC) for approval. The plan is implemented after the approval by DPC.

3.2.6 Management of Hospitals by PRIs

The result of our field survey reveals that 86 percent of PRIs had carried out activities to improve the health delivery system of PHIs in their respective jurisdiction. But the role of PRIs in the operation and management of these the health institutions was limited. It may be noted that a PHI is a professional institution staffed by technical people and several PRIs under our survey were not in a position to involve actively in the management of PHI. Hence, in practice, jurisdiction of PRI ended with just administrative oversight.

3.3 Responsibilities and Controls of Health Official

Day –to- day administration of each PHI is carried out by its Medical Officer. Medical officer or superintendent of a PHC, CHC or DH is implementing officer of the respective PHC, CHC or DH. It is the medical officer who heads the team of health officials responsible for providing medical services. Appointment of regular staff of each PHI is made by District Medical Officer (DMO) with the approval of Public Service Commission, Government of Kerala. However, temporary non-medical staff is appointed by HMC and their salary is paid out of HMC fund or project fund.

It is important to note that staff of PHIs are mainly controlled by Directorate of Health Services , Department of Indian Systems of Medicine and Directorate of Homeopathy. In fact , District Medical Officer writes Confidential Report (CR) of a health staff based on the basis of report from the Control Officer / Medical Officer. It is the responsibility of state government through Directorate of Health Services, Department of Indian Systems of Medicine and Directorate of Homeopathy to provide salaries of the respective health staff and to meet the cost of medicines.

It is important to understand that Medical Officer of a PHI is the Implementing Officer in respect of each health project. These projects include construction of buildings, purchase of equipments upgradation and maintenance of available equipments and infrastructure. Department of Health Services, Department of Indian Systems of Medicine, and Directorate of Homeopathy do not have funds for these

activities and hence PRIs holds responsibility of creating infrastructure, purchasing equipment and their maintenance.

3.4 Hospital Management Committee (HMC) : A Common Platform for PRIs and Health Officials

Each public health institution under Allopathic, Ayurvedic and Homeopathic system has a Hospital management Committee. In order to manage a public health institution it is required to constitute a Hospital Management Committee under the leadership of the elected head of the concerned local government. While the chairperson of HMC is elected head of the local government, Medical Officer of the respective Public Health Institution is its convener. Hospital Management Committee (HMC) is a democratically constituted body that provides a platform for elected representatives and officials of PRI and health officials to work jointly for the efficient functioning of PHIs. The chairperson of the Hospital Management Committee is the chairperson of the respective Panchayati Raj Institution while the Superintendent/ Medical Officer of the respective Public Health Institutions is a secretary / convener of the committee. President District Panchayat is the chair person of HMC of District Hospital while members of standing committee(Health and Education) are the members of HMC. Similarly, President of Block Panchayat is the chair person of HMC of CHC while the Superintendent/ Medical Officer of the CHC is a secretary / convener.

President village Panchayat is the chair person of HMC of PHC while the Superintendent/ Medical Officer of the PHC is a secretary / convener. HMC consists of representatives from PRIs and PHIs, representatives of political parties, professionals and civil society organization. Members of standing committee (Health and Education) of PRI are the members of HMC. Engineers of local offices of Kerala Water Authority and Kerala State Electricity Board are also members of HMC.

3.4.1 Major Functions of HMC are as given below:

- Fund mobilization and allocation
- Identification and formulation of innovative projects
- Dealing with problems of PHI
- Dealing with the grievances and health needs of people
- Appoint temporary staff using HMC fund

HMC maintain a separate fund namely HMC fund. The source of this funds includes fee paid by patient at the time of OP/IP registration, donation from public and fund received from governments such as NRHM.

HMC play an important role in the management of each PHI. HMC manages services like supply of essential drugs, medical equipment, sanitation, ambulance services and laboratory services. The HMC has autonomy to collect and retain user fee charged for services like Out Patient /In Patient registration, parking, canteen services, to set up fair price medical shops and collect funds through donations and contributions. The mobilized funds are used for purchase of medicines, consumables, maintenance of buildings, furniture and equipment, construction and civil works in line with the guidelines of state government issued from time to time.

3.5 Duality of Responsibilities and Controls in Public Health Institutions: Responsibilities and Controls Matrix

It is significant to note that PRIs and health personnel hold joint responsibilities and they share certain responsibilities. Now let us discuss the duality of responsibilities and controls using the matrix given in Table 3.1. PRIs have the full responsibility for building, upgrading and maintaining infrastructure. Both PRIs and health officials involve in the supply of drugs while the latter is responsible for the supply of major share of drugs. It is the state government, not PRI or local government, recruit and appoint regular staff of all PHIs. Public Service Commission of state government recruits these staff. However, PRIs appoint temporary staff such as driver of ambulance. The salary of these temporary staff is paid out of HMC fund. State government through the concerned departments carries out activities related to staff placement, promotion, payment of salaries of health personnel. It is significant to note that both PRIs and officials of PHIs have disciplinary control over health staff.

Table 3.1

Public Health Institutions: Responsibilities and Controls Matrix

Areas of Responsibility and Control	PRIs	State Health Department/ DHS and Indian system of medicines/ Government Homeopathy Directorate
Tasks ↓		
Infrastructure	FR	
Supply of drugs	PR	FR
Regular recruitment of Staff		FR*
Temporary Staff paid out of HMC fund	FR	
Staff Placement		FR
Promotion		FR
Payment		FR
Disciplinary Control over staff	PR	FR
Planning and Implementation of New Projects	PR	PR

Source: Field Survey

* **Note:** FR- Full Responsibility, PR-Partial Responsibility

In the context of duality of responsibilities and controls, different tiers of PRIs in Kerala plays a leading role in the operation and management of PHIs and in the delivery of public health care services.

Chapter- IV

Impact of the Role of PRIs in the Health Care System in Kerala: An Evaluation

This chapter comprises of four sections. The first section discusses performance based indicators that can be used to assess the impact of the role of PRIs in health care systems. In the second section we try to assess the impact of the role of PRIs in health care systems with respect to the duality of responsibilities and controls of PRIs and health officials in the management of public health institutions. Case Studies of select PRIs in respect of the role of PRIs in the public health delivery system are covered in the third section. The fourth section deals with the role of Malappuram Zilla Panchayat in public health delivery system as a successful PRI model in Kerala. The role of Pathanamthitta Zilla Panchayat in public health delivery system is covered in the last section as a case of a sub optimal performance.

4.1 PRIs & PHIs : Development of Performance based Indicators

An assessment of the involvement of PRIs in the operation and management of a Public Health Institution can be carried out using certain performance based indicators. As is shown in Table 4:1, these performance or outcomes can be broadly divided into different categories in line with the different areas of intervention. These include improved physical infrastructure of Public Health Institutions in a Panchayat Area, improved human infrastructure of Public Health Institutions due to the intervention/initiatives of PRI, execution of new projects in a Public Health Institution due to the intervention/initiatives of PRI, enhanced involvement of community in the development of PHIs and enhanced service delivery to poor and marginalized people due to the intervention/initiatives of PRI. The performance based indicators include increase in the number of PHI having own land due to the intervention/initiatives of PRI, increase in the number of Beds added to PHI, regular maintenance of physical infrastructure, increase in the number of Medical Officers, paramedical staff and other staff, Improved attendance and services of medial, paramedical and other staff of PHI, Increase in the number of people covered under health awareness camps, medical camps and health surveys, increase in the capacity of PRI and PHI to respond to outbreak of epidemic / vector born, food and drinking water disease, increase in the number of innovative and new projects identified, formulated and implemented in the health sector by PRIs and constitution of a committee/ forum with the involvement of community members for the management of PHIs.

Table 4.1
Role of PRIs in Public Health Care Systems: Performance based Indicators

Indicative Outcomes	Performance Indicators
Improved Physical Infrastructure of Public Health Institutions in a Panchayat Area due to the intervention/initiatives of PRI	<ul style="list-style-type: none"> • Increase in the number of Public Health Institutions (PHI) having own land • Increase in the number of Beds added to PHIs • Increase in the building space of PHI • Increase in the number of rooms in a PHI • Increase in the number of X-ray machines in a PHI • Increase in the number of ultrasound scanning machines in a PHI • Increase in the number of ECG machines • Increase in the number of equipment for basic and special laboratory tests in a PHI • Availability of quality water for drinking and non-drinking purposes in a PHI • Availability of regular supply of electricity in a PHI • Increase in the number of Intensive care units • Regular maintenance of physical infrastructure in a PHI
Improved Human Infrastructure of Public Health Institutions due to the intervention/initiatives of PRI	<ul style="list-style-type: none"> • Increase in sanctioned posts for medical staff, paramedical staff and other staff to meet the prevailing demand of a PHI • Get adequate medical staff, paramedical staff and other staff to fill sanctioned post of a PHI • Increase in the number of Medical Officers, paramedical staff and other staff in a PHI • Increase in the number of specialist doctors such as Surgeons, Obstetricians, Gynecologists, Physicians and Pediatricians to meet the prevailing demand of a PHI. • Improved attendance and services of medial, paramedical and other staff of PHI

Indicative Outcomes	Performance Indicators
Improved availability of medicines due to the intervention/initiatives of PRI	<ul style="list-style-type: none"> • Regular and adequate level of supply of medicines • Decrease in the number of Patients who buy medicines from outside the PHI
Improved quality of expenditure of PHIs due to the intervention / initiatives of PRI	<ul style="list-style-type: none"> • Increase in the share of total expenditure on the purchase of medicines • Increase in the share of total expenditure on the purchase and regular maintenance of technical equipments • Reduction in the unproductive expenditure and wastage of funds of a PHI • Increase in the allocation of PRI grants to PHIs for the purchase of medicines and purchase and maintenance of technical equipments
Execution of new projects in a Public Health Institution due to the intervention/initiatives of PRI	<ul style="list-style-type: none"> • Identify and formulate new and innovative projects for the development and expansion of a PHI • Execute new and innovative projects for the development and expansion of a PHI • Mobilise resources from own sources and government sources for funding health projects • Encourage the involvement of communities in the funding of health projects. • Increase in the number of innovative and new projects identified, formulated and implemented in the health sector by PRIs.
Preparation and execution of a Health Plan by PRI	<ul style="list-style-type: none"> • Formulate and implement annual and perspective plan for the area under the jurisdiction
Increased Public Health Awareness due to the intervention/initiatives of PRI	<ul style="list-style-type: none"> • Identify and formulate new and innovative projects for the development and expansion of PHI • Execute new and innovative projects for the development and expansion of PHI • Mobilise resources from own sources and government sources for funding health projects

Indicative Outcomes	Performance Indicators
	<ul style="list-style-type: none"> • Encourage the involvement of communities in the funding of health projects.
Preparation and execution of a Health Plan by PRI	<ul style="list-style-type: none"> • Formulate and implement annual and perspective plan for the area under the jurisdiction
Increased Public Health Awareness due to the intervention/initiatives of PRI	<ul style="list-style-type: none"> • Organise health awareness camps, medical camps and conduct health surveys • Increase in the number of health awareness camps and medical camps organized • Increase in the number of health surveys conducted • Increase in the number of people covered under health awareness camps, medical camps and health surveys • Increase in the capacity of PRI and PHI to respond to outbreak of epidemic / vector born, food and drinking water disease. • Increase in the health awareness level of people • Increase in the public awareness about various health support schemes and programmes and health service provisions ensured under various government programmes such as NRHM, RSBY , Total Sanitation Campaign, etc.
Enhanced involvement of community in the development of PHIs due to the intervention/initiatives of PRI	<ul style="list-style-type: none"> • Constitution of a committee/ forum with the involvement of community members for the management of PHIs. • Increase the role of community members in the management and functioning of a PHI
Enhanced service delivery to public, especially poor and marginalized people due to the intervention/initiatives of PRI	<ul style="list-style-type: none"> • Percent increase of patients availing the service of a PHI • Percent Increase of poor and marginalized communities availed services of a PHI. • Community monitoring of existing health facilities and health services of a PHI • Percent increase of women visiting PHIs seeking health services.

Indicative Outcomes	Performance Indicators
Sensitized/ Trained PRIs and Health Officials on health issues and service delivery due to the intervention/initiatives of PRI	<ul style="list-style-type: none"> • Effective approaches formulated by PRI towards sensitization of officials of a PHI on various aspects of public health delivery system • Number of training programme on public health delivery organised for PRI and PHI.
Preventive Measures are promoted by PRIs	<ul style="list-style-type: none"> • Documentation of local epidemiology in the context of changing local environment variations. • Number of activities and programmes on the waste management , improvement in environment cleanliness , mosquito control, etc. organized by PRI
Functioning of PHIs is monitored by PRIs	<ul style="list-style-type: none"> • Number of monitoring visits to PHIs by PRIs held. • Percent increase of grievances of public, especially poor and marginalized communities, in respect of services of a PHI addressed by PRI.

4.2 Role of PRIs in the Public Health Delivery System in Kerala- Assessment Using Performance based Indicators: Results of Sample Survey

An assessment of the involvement of PRIs in the operation and management of a Public Health Institution can be carried out using certain performance based indicators.

4.2.1 Impact on Facilities in various PHIs : Results of Sample Survey

The availability of facilities in District Hospitals covered under survey is shown in the Table 4.2. Basic Laboratory Test, Special Laboratory Test, X-ray, ECG, Vaccination and Family planning facilities were found in most of the district hospitals. It may be noted that the facilities in 2012 is much better compared to facilities available in 2005. The feedback from the respondents reveals that basic laboratory test was available in 78 percent while scanning was available in just 55 percent district hospitals in 2007. This significant improvement was primarily due to the intervention and initiatives of PRIs.

Table 4.2
Availability of Facilities- District Hospitals: 2005-2012

Particulars	2005 (%)	2012 (%)
Basic Laboratory Test	78	98
Special Laboratory Test	68	95
X-ray	71	98
ECG	70	96
Scanning	55	92
Vaccine	81	99
Family Planning	91	98

Source: Field Survey

The facilities in CHCs covered under survey in 2005 and 2012 are shown in the Table 4.3. While 97 percent CHCs had basic laboratory test facility against special laboratory test in 90 percent CHCs followed by X-ray, ECG in 88 percent CHCs. However, most of the facilities available in CHCs were quite less in 2005.

Table 4.3
Availability of Facilities: Community Health Centres: 2005-12

Particulars	2005 (%)	2012 (%)
Basic Laboratory Test	28	97
Special Laboratory Test	20	90
X-ray	23	88
ECG	33	60
Scanning	32	40
Vaccine	74	89
Family Planning	76	85

Source: Field Survey

The facilities in PHCs covered under survey in 2005 and 2012 are shown in the Table 4.4. While 95 percent PHCs had basic laboratory test facility against Special Laboratory Test in 73 percent PHCs followed by X-ray, ECG in 65 percent PHCs. However, most of the facilities available in PHCs were quite less in 2005. This significant improvement can be attributed to the intervention and initiatives of PRIs.

Table 4.4
Availability of Facilities - Primary Health Centres: 2005-12

Particulars	2005 (%)	2012 (%)
Basic Laboratory Test	67	95
Special Laboratory Test	10	73
X-ray	12	65
ECG	34	55
Scanning	28	30
Vaccine	43	86
Family Planning	55	75

Source: Field Survey

The facilities in Sub Centers covered under survey in 2005 and 2012 are shown in the Table 4.5. It is important to note that facilities in Sub Centers were limited both in 2005 and 2012. For instance, special laboratory test, X-ray and ECG were not available in Sub Centers. While 90 percent Sub Centers had basic laboratory test facility against vaccination in 88 percent Sub Centers and family planning in 70 percent Sub Centers in 2012 .

Table 4.5
Availability of Facilities - Sub Centres : 2005-12

Particulars	2005 (%)	2012 (%)
Basic Laboratory Test	45	90
Special Laboratory Test	--	--
X-ray	--	--
ECG	--	--
Scanning	--	--
Vaccine	22	88
Family Planning	12	70

Source: Field Survey

Most of the PHIs covered under survey have own building in 2012 compared to 2005. All the district hospitals operate from own buildings while around 98 percent CHCs, 99 percent PHCs and 95 percent SCs have their own buildings in 2012 (See Table 4.6).

Table 4.6

Public Health Institutions- Own Building : 2005-12

Category	2005 (%)	2012 (%)
District Hospital	100	100
CHC	78	98
PHC	80	99
Sub Centre	81	95

Source: Field Survey

It is found that all the PHIs covered under the survey were available with water facility in 2012. However, a section of PHIs were unavailable with water facility in 2005 (See Table 4.7)

Table 4.7

Public Health Institutions-Water Facility: 2005-12

Category	2005 (%)	2012 (%)
District Hospital	100	100
CHC	93	100
PHC	91	100
Sub Centre	88	100

Source: Field Survey

As is evident from Table 4.8 there has been a substantial improvement in the availability of help desk facility with PHIs in 2012 compared to 2005 mainly due to the initiatives of PRIs. In 2012 most of District Hospitals had help desk facility. About 50 percent CHCs and 30 percent PHCs had help desk facility in 2012 while all the PHCs were unavailable with such facility in 2005.

Table 4.8

Public Health Institutions- Availability of Help Desk Facility: 2005-12

Category	2005 (%)	2012 (%)
District Hospital	48	98
CHC	5	50
PHC	0	30
SC	0	2

Source: Field Survey

4.2.2 Impact on Patients

It is important to understand the variation among different categories of PHIs in respect of number of patients in outpatient and inpatient sections. We have captured the picture of number of patients in outpatient and inpatient sections in the years 2005 and 2012. Results of our field survey reveal that daily average number of patients in OP in District Hospital was 402 against 211 in CHC, 105 in PHC and 21 in SC in 2012. The corresponding figures in 2005 were 307, 112, 87 and 12 respectively (See Table 4.9). It is found that Other Backward Communities (OBCs) were the largest section of beneficiaries of Public Health Institutions followed by Scheduled Castes. About 42 percent beneficiaries of District Hospital and 41 percent beneficiaries of Community Health Centers were from OBCs.

Table 4.9

Public Health Institutions - Daily Average Number of Patients in OP : 2005-12

Category	Average Number (2005)	Average Number (2012)	SC (2012)	ST (2012)	OBC (2012)	Others (2012)
District Hospital	307	402	161	12	169	60
CHC	112	211	87	4	87	34
PHC	87	105	44	2	42	18
Sub Centre	12	21	9	1	8	4

Source: Field Survey

Note: Caste wise classification for the year 2007 is not available

Results of our field survey reveals that daily average number of patients in IP was 140 in district hospitals, 75 in CHCs, 12 in PHCs in 2012 against 130,45 and 2 respectively in the year 2005 (See Table 4.10).

Table 4.10
Public Health Institutions - Daily Average No. of Patients in IP: 2005-12

Category	Average Number (2005)	Average Number (2012)	SC (2012)	ST (2012)	OBC (2012)	Others (2012)
District Hospital	130	140	56	4	59	21
CHC	45	75	31	2	31	12
PHC	2	12	5	1	5	1
Sub Centre	0	0	-	-	-	-

Source: Field Survey

Note: Caste wise classification for the year 2005 is not available

We have examined the income status of patients who sought treatment in PHIs and it was found that out of the patients of District Hospitals interviewed 72 percents were under BPL category against 80 percent in CHCs, 67 percent in PHCs and 83 percent in Sub Centers (See Table 4.11).

Table 4.11
Public Health Institutions - Income Status of Patients : 2012 %

Category	BPL (%)	APL (%)
Patients of District Hospitals	72	28
Patients of CHCs	80	20
Patients of PHCs	67	33
Patients of Sub Centres	83	17

Source: Field Survey

Annual average income of patients covered under our survey shows that about 60-70 percent patients of all the PHIs were in the range of between Rs. 10,000- Rs.20, 000 (See Table 4.12).

Table 4.12

Public Health Institutions - Patients' Annual Average Income : 2012 (%)

Category	Below Rs.10,000	Between Rs.10,000-Rs. 20,000	Between Rs.20,000 – Rs. 40,000 and above
District Hospital	5	70	25
CHC	30	60	10
PHC	10	70	20
Sub Centre	35	60	5

Source: Field Survey

Assessment by Patients about the service delivery of PHIs is reported in Table 4.13. According to just 17 percent patients availability of health officials in PHIs was poor in the year 2012 while about 86 percent patient felt that availability of health officials was poor in 2005. This is a positive impact due to the intervention of PRIs. Availability of medicines was poor in 2012 for just 17.6 percent respondents as 96 percent patients reported the same as poor in 2005. Over 16 percent patients experienced quality of services as poor while quality of infrastructure was poor for 15.5 percent patients in 2012. As is evident from Table 4.13 there is a substantial improvement in respect of attendance of health officials, availability of medicines, quality of services and quality of infrastructure due to the intervention of PRIs during 2005-2012.

Table 4.13

Public Health Institutions - Assessment by Patients : 2005-12 (%)

Particulars	Poor	Poor	Fair	Fair	Good	Good	Very Good	Very Good	Excellent	Excellent
	2005	2012	2005	2012	2005	2012	2005	2012	2005	2012
Attendance & Availability of Health Officials	86	16.7	14	20.5	0	37.2	0	14.1	0	11.5
Availability of medicines	96	17.6	4	16.2	0	40.5	0	17.6	0	8.1
Quality of services	99	16.3	1	15.2	0	45.5	0	20.3	0	2.7
Quality of Infrastructure	74	15.5	26	21.3	0	40.2	0	19.4	0	3.6

Source: Field Survey

It is important to note that a significant number of patients, both inpatients and outpatients were getting medicines and lab test services from the concerned PHIs free of charge. The percentage of patients who purchase medicines from outside PHIs by paying the market price has declined substantially during 2005-2012 (Table 4.14). This positive outcome can be clearly attributed to the active role played by PRIs in the management of PHIs.

Table 4.14
Public Health Institutions - Purchase of Medicines / Availing Lab Test Services
from Outside: 2005-12 (%)

Category	Medicine 2005	Medicine 2012	Lab Test 2005	Lab Test 2012
In patients	45	5	39	6
Out Patients	85	5	74	3

Source: Field Survey

It was found that patients who sought treatment from PHIs were residing within 0-4 Kilometers (See Table 4.15).

Table 4.15
Public Health Institutions - Distance : 2012 (%)

Category	0-4 KM	5-10 KM
District Hospital	95	5
CHC	97	3
PHC	55	45
Sub Centre	95	5

Source: Field Survey

Spurious Medicines and Medical Negligence: The feedback of our field survey clearly indicates that the patients/ beneficiaries (98%) are highly sensitive and responsive to any problem, minor or major, in a particular public health institution. Quite often, they bring these issues to the notice of representatives of Panchayati Raj Institutions or local leaders of political party or representatives of community-based organizations who in turn approach appropriate authorities seeking the solutions. It is quite interesting to note that complaints of supply of any spurious medicines were not received from any respondent.

However, about 8 percent beneficiaries reported their experience of medical negligence in public health institutions.

4.2.3 Effectiveness of HMC : Role and functions of Hospital Management Committee (HMC) were critically analyzed. The results of the analysis are presented in Table 4.16, Table 4.17 and Table 4.18. It is found that HMCs of all the district hospitals had met once in three months in 2012 compared to 10 percent in 2005. It is also found that about HMCs of 87 percent of specialty hospitals under the survey had met once in three months. It is important to note that about 2 percent Specialty Hospitals, 3 percent CHCs and 5 percent PHCs had not constituted HMCs at all (See Table: 4.16). The main reason for the non-formation of HMC was the procedural delay after the upgradation of PHIs from one level to the next higher level.

Table: 4.16

Meetings of HMCs in Public Health Institutions : 2005-12 (%)

Particulars	1-3 months		4-6 months		6 and above months		HMCs not constituted	
	2005	2012	2005	2012	2005	2012	2005	2012
District Hospital	10	100	10	0	10	0	70	0
Specialty Hospitals	5	87	5	5	7	6	83	2
CHC	1	86	2	6	3	5	84	3
PHC	1	83	2	7	2	5	95	5

Source: Field Survey

As is evident from Table 4.17 there is an interesting assessment of the role of HMCs in Public Health Institutions by PRIs. In respect of effectiveness of HMCs in district hospitals, according to 67 percent PRIs it was good, while for 8 percent it was very good / excellent. However, 25 percent PRI respondents reported it as poor. In the case of functioning of HMCs in CHCs and PHCs, 72 and 76 percent respectively reported as good.

Table 4.17
Effectiveness of HMCs in Public Health Institutions: 2005-12
Assessment by PRIs (%)

Particulars	Poor		Good		Very Good		Excellent	
	2005	2012	2005	2012	2005	2012	2005	2012
District Hospital	71	25	29	67	0	7	0	1
Specialty Hospitals	76	26	24	66	0	6	0	2
CHC	85	19	15	72	0	5	0	4
PHC	95	15	5	76	0	7	0	2

Source: Field Survey

As is shown in Table 4.18 there is an assessment of role of HMCs in Public Health Institutions by health personnel. About 68 percent respondents from district hospitals, 70 percent from specialty hospitals, 72 percent from CHCs and 74 from PHCs had reported the effectiveness of HMCs as good.

Table 4.18
Effectiveness of HMCs in Public Health Institutions: 2005-12
Assessment by Health Personnel (%)

Particulars	Poor		Good		Very Good		Excellent	
	2005	2012	2005	2012	2005	2012	2005	2012
District Hospital	39	31	61	68	0	1	0	0
Specialty Hospitals	41	30	59	70	0	0	0	0
CHC	45	27	55	72	0	1	0	0
PHC	55	25	45	74	0	1	0	0

Source: Field Survey

4.2.4 Effectiveness of Gram Sabha : As is evident from Table 4.19 there is an assessment of effectiveness of Gram Sabha in formulation of health plan of a PRI. This assessment was made by various

respondents covered under field survey. It is significant to note that 27-31 percent of three categories of respondents- elected representatives and officials of PRIs, Health Officials and Health workers of PHIs, Patients those sought treatment from various PHIs- found the effectiveness as poor. About 68-72 percent respondents found effectiveness of Gram Sabha in formulation of health plan as good while no one had rated it as very good or excellent.

Table 4.19
Effectiveness of Gram Sabha in formulation of Health Plan of a PRI : 2005-12
Assessment by Various Respondents (%)

Particulars	Poor		Good		Very Good		Excellent	
	2005	2012	2005	2012	2005	2012	2005	2012
Elected Representatives, Officials in PRIs, etc	41	31	59	68	0	1	0	0
Health Officials/Health workers in Public Health Institutions	31	30	69	70	0	0	0	0
Patients in Public Health Institutions	28	27	72	72	0	1	0	0

Source: Field Survey

4.2.5 Effectiveness of Working Group and Standing Committee of PRIs : An assessment of effectiveness of Working Group and Standing Committee of PRIs in formulation of Health Plan is presented in Table: 4.20. This assessment was made by elected representatives and officials of PRIs, Health Officials and Health Workers of PHIs, Patients those sought treatment from various PHIs. It is interesting to note that all elected representatives and officials of PRIs found the effectiveness as good or very good or excellent. However, 11 percent health officials and health workers of PHIs found the effectiveness of Working Group and Standing Committee of PRIs in formulation of Health Plan as poor.

Table 4.20
Effectiveness of Working Group and Standing Committee of PRIs in formulation of
Health Plan : 2005-12 - Assessment by Various Respondents (%)

Particulars	Poor		Good		Very Good		Excellent	
	2005	2012	2005	2012	2005	2012	2005	2012
Elected Representatives, Officials in PRIs, etc	12	0	87	68	1	20	0	12
Health Officials/Health Workers in Public Health Institutions	22	11	78	79	0	10	0	0
Patients in Public Health Institutions	41	5	59	73	0	19	0	3

Source: Field Survey

The results of our field survey clearly indicate that the system of dual controls and responsibilities yielded good results when elected representatives and officials of PRIs and medical officers were in good terms and maintain positive and cordial relationships. However, when there was a conflict the effectiveness of PRIs in PHIs was adversely affected.

4.3 Role of PRIs in the Public Health Delivery System in Kerala- Assessment Using Performance based Indicators: Case Studies

4.3.1 Case Study-1

A Successful PRI Model in Kerala : Malappuram Zilla Panchayat in Public Health Delivery System

Introduction: Malapuram zilla panchayat is one of the 14 zilla panchayats in Kerala. Zilla panchayat in Kerala has the power and responsibility for management of district hospitals and coordinating centrally and state sponsored health programmes at district level. Malapuram zilla Panchayat has implemented various public health care projects with the involvement of various gram panchayats, municipalities and local communities.

Health Projects of Malappuram Zilla Panchayat: Malappuram Zilla Panchayat had taken a series of innovative and radical measures to address various health issues of different segments of society. It is

significant to note that the funding of these activities was mainly out of donations from the public, though funds of local government and state government were utilized in a limited way. The highlights of the activities were as follows:

- Kidney Patients Welfare Society to provide free treatment to kidney patients
- Palliative Care Unit and Palliative Care Extension Activities such as Community psychiatry
- Free treatment and related services for HIV patients

Health Care Project 1 - Kidney Patient Welfare Society: Resource Mobilization through the involvement of Community: Sincere and concerted efforts were made by Malappuram zilla panchayat to mobilize financial resources to fund various innovative health projects. Contribution boxes were installed by Zilla Panchayat in more than 30,000 shops, both small and big shops, with a request to contribute generously to finance the above- mentioned public health service related initiatives of Zilla Panchayat. Similar Boxes were installed at various educational and other institutions. Contributions were mobilized from employees of various organisations. On a continuous basis, merchant associations, industry associations, religious organizations and other social and community based organizations had also made contribution on a regular basis. A regular follow up by PRI officials and elected representatives was made to ensure regular fund flow in the form of donation. In order to provide continuous healthcare services to kidney patients, Malappuram Zilla Panchayat had involved school students and teachers community in a big way. These included students, parents, principals, head masters, teachers, non-teaching staffs, Assistant Education Officers, District Education Officers. During 2010-11 a total of Rs.22,09,107 was mobilized through these school students and teachers community (See Table 4.21).

The society is the brainchild of Malapuram Zilla Panchayat and was born out of the earnest efforts of the members of the Panchayat. The panchayat conducted a need based assessment to pinpoint the needs of the Panchayat and came up with this innovative idea of setting up this society. Dialysis treatment is very costly and most of the people cannot afford the cost of this treatment. In view of the increasing number of kidney patients from poor and lower income families, Zilla Panchayat has designed this project. Poor people, who are undergoing this treatment, can register with this society for financial support. For registration they can send the application forms with complete details including phone numbers to the society by post or in person. After receiving the application, a member from the society will visit patient's house and assess the socio- economic condition and submit a report. After scrutinizing

each report it will be placed before the executive meeting. Needy Patients will be identified after the meeting. The society can provide Rs.250 per dialysis and up to Rs.2000 per month. Per year amount is fixed at Rs.24,000. The society distributes the amount through the 30 palliative clinics running in the Zilla Panchayat. According to the need the money can be provided in advance also. The clinic keeps various records of the patient in its office. The financial resources for this society come from contributions of various sources. The contributors include schools, cooperative banks, various organizations, religious organizations, individuals etc. This society is a leading example of successful public health project through community participation promoted by a Zilla Panchayat. Panchayat was able to involve school children in this programme as this is an opportunity to engage children with philanthropy works. Several patients got help from this programme and there is no dearth in fund as people are happy to contribute for this genuine cause. This is a success story that every Panchayat can emulate.

Table 4.21

Donation for Health Services to Kidney Patients: Amount collected by Malappuram District Panchayat from School for the period 2010-11: Education District wise.

Source of Contribution	Amount in (Rs.)
Malppuram DEO	4,23,876.00
Tirur DEO	4,19,860.50
Wandoor DEO	1,55,196.00
Areacode AEO	54,480.00
Edappal AEO	35,925.00
Kizhissery AEO	45,723.00
Kondotty AEO	44,315.00
Kuttiipuram AEO	90,739.00
Malappuram AEO	80,092.00
Manjery AEO	76,222.00
Mankada AEO	81,903.00
Melattur AEO	29,883.00
Nilampur AEO	75,025.00

Source of Contribution	Amount in (Rs.)
Parappanangadi AEO	78,797.00
Perinthalmanna AEO	58,953.00
Ponnani AEO	36,837.00
Tanur AEO	66,710.00
Tirur AEO	72,965.00
Vengara AEO	1,36,133.00
Wandoor AEO	57,453.00
Higher Secondary	45,001.00
English Medium	43,018.50
Total	22,09,107.00

Source: Zilla Panchayat, Malappuram

Health Care Project 2 - Palliative Care and Related Activities: Pariraksha Programme - *Pariraksha programme* helps those poor people who are suffering from prolonged illness. The Programme helps the family members to deal with the situation both financially and emotionally. Treatment and caring of patients having prolonged illness needs the involvement of people and community at different levels. Realizing this fact, the Malapuram Zilla Panchayat brought the patient care out of the hospitals and started first palliative care clinics. The first unit was set up in 1996 at Mancheri village. The programme started in 2007 June. By March 2012 the entire Gram Panchayats as well as the Municipalities of Malappuram district are covered.

Malappuram Zilla Panchayat had set up a *pariraksha* committee under the leadership of PRI to design and implement the programme. There is a dedicated team which includes doctors, nurses and trained volunteers who visit these patients weekly and help the patient. Family members are given support and assistance in availing the benefits of the schemes of government or other organizations. There is a network of 5000 volunteers that involve in this project and so far over 1500 patients are benefitted.

Health Care Project 3 - Palliative Care and Related Activities: Community Resource Centre in Palliative care (CRPC) is the training unit of the Malapuram Initiative in Palliative care. They train doctors, nurses, volunteers and students in patient care. It is a government recognized training centre and offers following courses:

- Basic certificate course in Palliative nursing (BCCPN)
- Basic certificate course in palliative auxiliary nursing (BCCPAN)
- Basic certificate course in palliative medicine for doctors (BCCPM)
- Certificate course in essentials of palliative care (CCEP)
- Certificate course in positive living
- Continuation programme for nurses
- Homecare training programme
- Volunteers training

Malappuram Zilla Panchayat made sincere efforts in mobilizing resource from the public with community participation for the running of these palliative care units. They collect donations through enlightening the people about the need and plight of such patients and encourage them to be a part of this movement. People from many walks of life have become the volunteers of this project and general public contributes to this noble cause in the form of cash and kind .

Health Care Project 4 - Community Psychiatry Programme: Under the Malappuram Zilla Panchayat Community Psychiatry programme is implemented successfully. It targets poor and lower income mental patients. Under the programme these patients are provided free treatment. Network of volunteers under palliative care programmes are involved in the implementation of this programme also.

Health Care Project 5 - Treatment and Related Services for HIV patients: This programme is also implemented to fight against the ill-treatment and social exclusion faced by HIV patients. HIV patients are provided support financially and psychologically. Trained volunteers try to involve with these patients at an early stage and build up confidence so that they can share their problems openly. With the community participation and awareness campaign, the stigma attached to these patients can be removed and can be brought to the main stream. The success of this programme highlights the important role played by effective community participation in bring these patients back to life.

Malapuram Zilla Panchayat : Public Health Care through Community Participation

The initiatives of Malappuram Zilla Panchayat in the field of palliative care, kidney patient care, community psychiatry and services for HIV patients can be taken as a successful PRI Model in Public

Health Delivery System. The relentless effort from the Zilla Panchayat and selfless support from members of the community people have resulted in the design and implementation of innovative projects in the field of Public Health delivery. Without depending on grant from state or central government Malapuram Zilla Panchayat created funds by mobilizing every amount and materials, however small it may be, from every citizen of the district and thus able to script a new chapter in community participation. This is a classical example of collaborative governance that needs to be rooted in the new institutional set up in view of difficulties of government mechanism to meet the growing needs of the people. The political and bureaucratic leadership of Malappuram Zilla Panchayat has been the primary instigator of these collaborative initiatives. This significant participation from the local community strengthened the collaborative efforts in the field of public health delivery system.

4.3.2 Case study-2 : Case of a Sub Optimal Performance: Pathanamthitta Zilla Panchayat in Public Health Delivery System

By and large, three tiers of PRIs in all six districts under the survey played a significant role in the delivery of public health services. However, It is found that some PRIs have sub optimal performance. Pathanamthitta Zilla Panchayat, compared to many other PRIs, especially six Zilla Panchayats covered under our survey, was not performing well in respect of various aspects of public health delivery.

Effectiveness of Hospital Management Committees Poor Performance: The analysis of the performance of Pathanamthitta Zilla Panchayat in a comparative perspective shows that it is lagging behind other Zilla Panchayats in respect of the effectiveness of Hospital Management Committees. As is evident from Table 4:22 about 45 percent PRI respondents rated the effectiveness of Hospital Management Committees as poor against 25 percent PRI respondents for the 6 district hospitals under the survey.

Table 4.22

Suboptimal Performance - Assessment of Effectiveness of HMC in Pathanamthitta by PRIs: 2012 (%)

Particulars	Poor	Good	Very Good	Excellent
Average of 6 district hospitals under the survey	25	67	7	1
District Hospital: Pathanamthitta	45	53	2	0

Source: Field Survey

As is shown in Table 4.23 about 48 percent health personnel respondents rated the effectiveness of Hospital Management Committees as poor against 31 percent health personnel respondents for the 6 district hospitals under the survey.

Table 4.23
Suboptimal Performance - Assessment of Effectiveness of HMC in Pathanamthitta by Health Personnel: 2012 (%)

Particulars	Poor	Good	Very Good	Excellent
Average of 6 district hospitals under the survey	31	68	1	0
District Hospital: Pathanamthitta	48	52	0	0

Source: Field Survey

Effectiveness of Working Group and Standing Committee of Pathanamthitta Zilla Panchayat in Formulation of Health Plan–Poor Performance: The analysis of the performance of Pathanamthitta Zilla Panchayat clearly indicates that it is lagging behind other Zilla Panchayats in respect of the effectiveness of Working Group and Standing Committee of Zilla Panchayats in the formulation of health plan. As presented in Table 4:24 the performance rating by various stakeholders for Pathanamthitta Zilla Panchayat was below the district average. According to 31 percent health officials/health workers in Public Health Institutions in Pathanamthitta Zilla Panchayat, the effectiveness of Working Group and Standing Committee of their Zilla Panchayat was poor against 11 percent average of 6 districts under survey.

Table 4.24

Effectiveness of Working Group and Standing Committee of Pattanamthitta Zilla Panchayat in formulation of Health Plan- Assessment by Various Respondents - 2012 (%)

Particulars	Poor	Good	Very Good	Excellent
Elected Representatives, Officials in six Zilla Panchayats under the survey	0	68	20	12
Elected Representatives, Officials in Pathanamthitta Zilla Panchayat	0	98	2	0
Health Officials/Health Workers in Public Health Institutions in six Zilla Panchayats under the survey	11	79	10	0
Health Officials/Health Workers in Public Health Institutions in Pathanamthitta Zilla Panchayat	31	69	0	0
Patients in Public Health Institutions in six Zilla Panchayats under the survey	5	73	19	3
Patients in Public Health Institutions in Pathanamthitta Zilla Panchayat	34	66	0	0

Source: Field Survey

Resource Mobilization and Implementation of Health Projects: The results of our field survey reveals that Pathanamthitta Zilla Panchayat has implemented less number public health care projects with the involvement of various gram panchayats, municipalities and local communities. The Pathanamthitta Zilla Panchayat had not taken any initiatives in mobilizing resources from own sources . Moreover its efforts in mobilizing funds from government sources for funding health projects were also limited. It had not identified or developed any innovative projects for the expansion of PHIs under its jurisdiction. Unlike many other Zilla Panchayats, Pathanamthitta Zilla Panchayat could not initiate activities to encourage the involvement of communities in the funding of health projects. While there was a shortage of staff in PHIs the Pathanamthitta Zilla Panchayat had not taken initiatives in getting sanction of additional posts especially for medical staff and paramedical staff.

It can be safely concluded that Pathanamthitta Zilla Panchayat, compared to many other PRIs, especially six Zilla Panchayats covered under our survey, was not performing well in many respects , especially in respect of formulation and implementation of new and innovative public health projects, community involvement in the management of Public Health Institutions and resource mobilization.

4.3.3 Case study 3: Health Projects of Kazhakoottam Block Panchayat : 2010-11

It is quite significant to analyse various types of health related projects of an intermediate Panchayat in a particular year. In 2010-11 Kazhakoottam Block Panchayat had taken five major health - related projects, mostly infrastructure related projects. These are development of drinking water facility at its PHC, complete sanitation process, operation of an Old Age Home, renovation of an ICDS Canteen and office of its PHC (See Table 4.25).

Table 4.25
Health Projects of Kazhakoottam Block Panchayat : 2010-11

Health Related Project	Allotted Amount. (Rs.)	Expenditure (Rs.)	Balance (Rs.)
Development of Drinking Water facility at Puttanthoppu PHC	3,17,885	0	3,17,885
Complete Sanitation Process	19,00,000	7,66,200	11,33,800
Shri. K.Karunakaran Memorial Old Age Home	12,56,000	12,56,000	0
ICDS Canteen Renovation	1,00,000	0	1,00,000
PHC Pangapara Office Renovation	2,50,000	2,42,360	7,640
Total Health Related Project	38,23,885	22,64,560	15,59,325
Total Project Amount (Both health and non-health)	3,50,03,594	2,61,17,562	88,86,032
% of Health Amount	11	9	18

It is estimated that about 11 percent of the total budget of Kazhakoottam block panchayat was allotted for health related projects, while the actual expenditure was about 9 percent of the total expenditure. It is a matter of concern when the 18 percent of the total unspent balance was from the health- related projects.

4.3.4 Case study-4 : Aymanam Gram Panchayat

Palliative Care Unit - An innovative health care project of Aymanam Gram Panchayat: Panchayats in Kerala play a significant role in providing health care services to the aged and the terminally ill. Kerala has now set up a wide range of palliative care centers to provide health care services to the aged and the terminally ill. In fact, it was Aymanam Gram Panchayat in Kottayam district had started this innovative and pioneering project in 2009. The Aymanam Panchayat's was quite active in formulating and implementing projects to address various health issues. This experience had helped them in taking up palliative care service delivery in the Gram Panchayat. Exposure of the leadership of Gram Panchayat, particularly the President of the Panchayat, to various philanthropic groups also helped in taking this initiative.

Aymanam Gram Panchayat conducted an extensive need assessment survey to assess the magnitude of the problems of the aged and the terminally ill and to identify the potential beneficiaries. In the need assessment survey difficulty in accessing health care for the terminally ill and non availability of timely health support were highlighted. In the next step, Panchayat had made consultations with various stakeholders and mobilized existing health actors like Accredited Social Health Activists (ASHA), Health Workers, and PHCs. NRHM officials were also taken in to confidence and on board. Apart from using the Panchayat President Relief Fund' donations were mobilized from public to fund the project. More than 75 people were availed palliative care services till March 2012.

4.3.5 Case Study-5: Vattiyurkavu Gram Panchayat

Expansion of a PHC Vattiyorkavu sharing the experience of Cuba: Vattiyurkavu Primary Health Centre (PHC) is situated in Kulasekaharam, in the Vattiyurkavu Gram Panchayat. It is a semi-urban area having very high density population around 50,000.

This PHC was running on a rented building with limited facilities till early 2007. There was a need for easy accessibility and improved facilities in view of the increased number of patients. So Kulasekharam Citizens Committee which included the representatives and officials of Gram Panchayat and Residence Association had taken various initiatives to strengthen the infrastructure of the PHC. The Committee bought 43 cents land after mobilizing funds through donation from public and then donated the land to Gram Panchayat for the expansion of PHC. Subsequently, Panchayat constructed a three room building for the hospital using its own fund.

Even after the construction of the building the hospital was running with a single doctor with a shortage several other facilities. Hence, Panchayat approached then Health Minister with a request for upgradation of the PHC. It was at that time the health minister Smt. Sreemati Teacher had made a visit to Cuba . She suggested to implement the Cuba model of Public Health Delivery System in Vattiyorkavu PHC, which was in the outskirts of capital of Kerala. The Gram Panchayat accepted her suggestion and Health department, Panchayat and Residents Associations had worked together to implement the project. It may be noted that the health system of Cuba and Kerala has many similarities like growing ageing population and high prevalence of non communicable diseases.

Cuban Model was implemented in the Vattiyorkavu PHC in the following four Phases:

- Phase I - Upgradation of existing PHC
- Phase II - Family Health Survey in the Gram Panchayat
- Phase III - Preparation of Clinical Registry
- Phase IV - Regular Health Camps
- Phase V - Up gradation of PHC

The up gradation was facilitated by NRHM which contributed Rs. 70 lakh by which the OP block was constructed. It included the ten - bedded male and female wards, doctor's room, toilets, minor surgery room with all the necessary facility and other utilities. The health staff included three doctors, one health inspector, five Junior Health inspectors, one lady health Inspector, Seven Junior Public Health Nurses, four Staff Nurses, two Nursing Assistants, one Lab Technician, one Data Entry operator and Driver with Van.

Phase-II Family Health survey of Vattiyorkavu was conducted and population was categorized into the following people into four categories

- Category I – Normal
- Category II – High Risk
- Category III – People with existing problems
- Category IV- People need Palliative care services

Non-Communicable Diseases camps were organized on sub center basis. After every three months one mega camp were also held in each sub centre. These health camps were organized to detect diseases

and prepare a database. All the individuals were given health card with unique ID number which helped to identify problems and treatment status from medical record library. All clinical registry records were entered and saved by the data entry operator. Clinical registry of the people was prepared. A database of patients with non-communicable deceases was prepared. Some aspects of the database are shown in Table 4.26 and Table 4.27.

Table 4.26

Vattiyurkavu : Database of Life Style Deceases

Area	Population	Diabetes mellitus	Hyper tension	Heart diseases
Nettayam	5689	355	501	160
Pappad	6386	383	514	156
Kulasekharam	7186	508	864	225
Vazhayila	5836	352	374	94
Vettikonam	7451	457	539	145
Manikanteswaram	8250	598	786	222
Kodunganoor	6667	425	528	134
Total	47465	3078	4106	1136

Source : Field Survey

Table 4.27

Vattiyurkavu : Database of Non- Communicable Deceases

Area	Bed Ridden	Cancer	Palliative	Geriatrics
Nettayam	11	15	4	39
Pappad	26	15	2	137
Kulasekharam	11	17	3	190
Vazhayila	5	5	4	45
Vettikonam	6	8	5	82
Manikanteswaram	24	21	5	198
Kodunganoor	11	12	2	81
Total	94	93	25	772

Source : Field Survey

The shift pattern of Vattiyurkavu PHC is presented in Table 4.28. A total of 33 medical and non medical staff was placed with Vattiyoor kavu PHC.

Table 4.28
Vattiyurkavu PHC : Staff Pattern, 2005- 2012

Designation	2005 (No)	2012 (No)
Medical officer in charge	1	1
Doctor under Spl. Scheme NRHM	0	2
Health Inspector	1	1
Lady Health Inspector	0	1
Junior Health Inspector Gr. I	1	2
Junior Health Inspector Gr. II	0	3
Junior Public Health Nurse Gr.I & Gr.II	2	8
Staff Nurse	2	5
Pharmacist	1	1
Nursing Assistant	0	1
Peon	1	1
Hospital Attendant Gr-II	0	1
Part Time Sweeper	1	1
Female ward helper	0	2
Lab tech	1	1
Driver	0	1

Source : Field Survey

4.3.6 Case Study 6: Mundathicodu Gram Panchayat

Mundavancode Gram Panchayat in Trissur district had prepared an Integrated Health and Sanitation Plan for the submission to District Planning Committee (DPC) for approval. As shown in the Table 4.29 the total size of the project is Rs.3.08 crores.

Table 4.29

Health Plan of PRI 2011-12 : Case Study of Mundathicodu Gram Panchayat

Sr.No.	Item	Total Amount (Rs.)
1	Health Survey	1,00,000
2	Awareness and Advertisement	2,50,000
3	Attentive Group Creation	2,50,000
4	Installation of Compost pit, Soakpit in 7000 Homes 2X1000=6000	1,40,00,000
5	Bio-gas plants in public places	8,40,000
6	Bio-gas plants in Colony	4,80,000
7	Supply of bio-gas plant below 3cent of Area	32,50,000
8	Permanent sweeper post in Important Centre in Gram Panchayat	2,88,000
9	Cleaning machines instruments	50,000
10	Chlorination, Fogging	2,00,000
11	Maintenance of existing waste management vehicle	50,000
12	Purchasing of New Vehicle for waste management	8,00,000
13	Driver salary for the waste management vehicle	1,08,000
14	Wind Draw Compost Unit	15,00,000
15	Mannira Compost	4,00,000
16	Landfill unit in 50 cent	50,000
17	Plastic waste management	10,00,000
18	Function of School Health Club	80,000
19	Shifting of Toilets near to the Drinking water source to avoid the pollution	15,00,000
20	Public toilets arrangement	6,00,000
21	Cleaning of Drinking water units	3,60,000
22	Health Camp and Health Card	11,25,000
23	Pain and Palliative unit	5,00,000
24	Health Insurance	20,00,000
25	Insinuator for destroy the paper, hospital waste	10,00,000
26	Toilet for family have not yet it	1,60,000
Total		3,09,41,000

Source: Mundathicodu Gram Panchayat

Various sources of fund for Health Projects under Health Plan of PRI 2011-12 included funds from MGNREGA scheme, MLA/MP Fund, etc.

Table 4.30
Sources of Fund for Health Projects under Health Plan of PRI : 2011-12
Case Study of Mundathicodu Gram Panchayat

Sr. No.	Source	Fund
1.	Village Panchayat	29,18,500
2.	Sanitation Mission/Kerala Government	86,28,000
3.	MGNREGA	24,32,500
4.	Block Panchayat	2,00,000
5.	Zilla Panchayat	25,00,000
6.	MLA/MP Fund	24,50,000
7.	Public Donations and others	1,18,12,000
Total		3,09,41,000

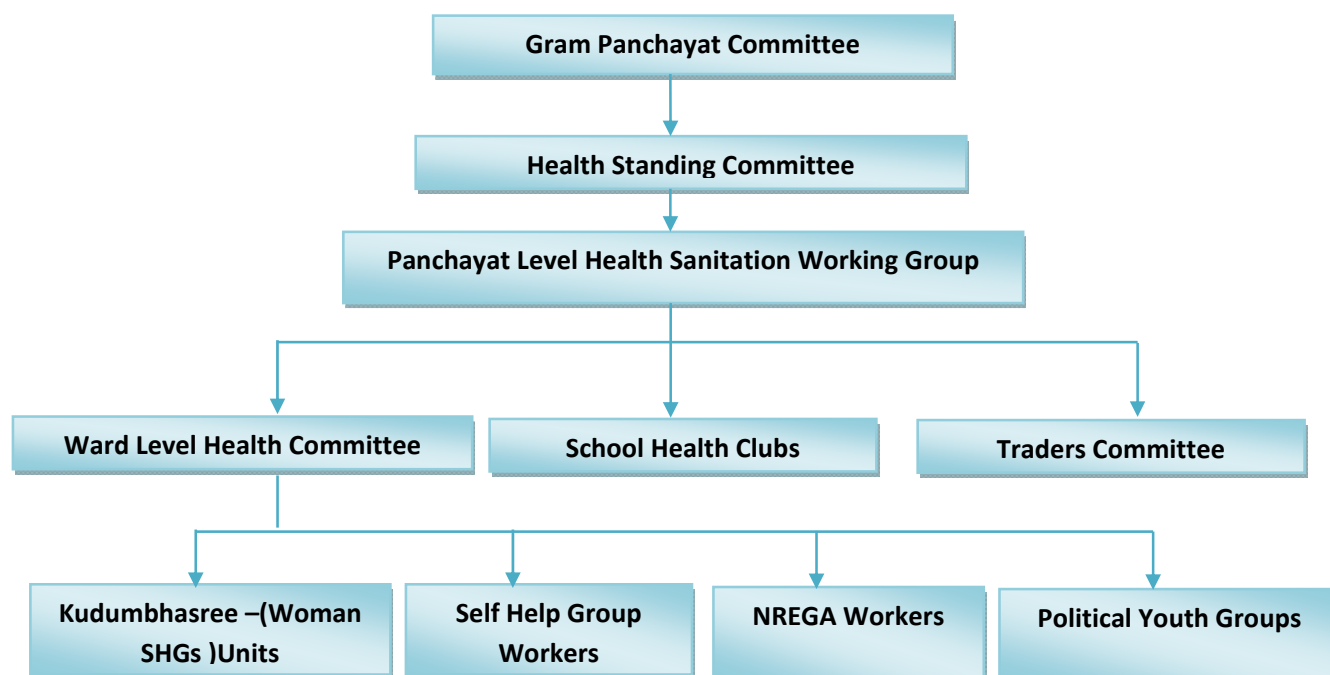
Source: Mundathicodu Gram Panchayat

Note : Integrated Health and Sanitation Plan, Mundathicodu village panchayat, Trissur districts, draft plan submitted for approval

It may be noted that, as in the case of any PRIs in Kerala, Mundathicodu Gram Panchayat has a well - structured system of various committee for the execution of health- related activities. These include Gram Panchayat Committee, Standing Committee on Health, Health and Sanitation Working Group, School Health Clubs, Ward Level Committee, Self Help Groups, etc.

Figure 4.1

**Panchayat Health Structure in a Gram Panchayat :
A case study of Mundathicodu Gram Panchayat**



Source :Field Survey

4.3.7 Case study 7 : Vadanappally Gram Panchayat : Variations in Expenditure Pattern

As a case we have studied allocation of Grant by Vadanappally Gram Panchayat in Trichur district to the respective PHC. As is evident from Table 4.31 Vadanappally Gram Panchayat allocated a total grant of Rs. 4 lakhs to its PHC during 2010-2011. This amount included grant for the purchase medicine by PHC in Maintenance grant for PHC and operation of Pain and Palliative care unit.

Table 4.31

PRI Grant to PHI - Case of Vadanappally PHC , Trichur : 2005-06 & 2010-11

Item	Amount (Rs.) 2005-06	Amount (Rs.) 2010-11
Medicine fund- allotted by Village Panchayat	Nil	100,000
Pain and Palliative care unit - allotted by Village Panchayat	Nil	100,000
Maintenance grant- allotted by block Panchayat	Nil	200,000
Total	Nil	400,000

Source: Field Survey

This case study clearly indicates that the expenditure pattern of PRIs has changed. Moreover, emphasis is given to the purchase of medicine and provisions of healthcare services.

4.4 To sum up, various tiers of PRIs in the state of Kerala have significantly involved in the planning and execution of various health projects. PRIs have taken these responsibilities jointly with Department of Health Services, Department of Indian System of medicines and Directorate of Homeopathy. The prevailing system of duality of responsibilities and controls of PRIs and Department of Health Sciences or Department of Indian System of Medicine or Directorate of Homeopathy, Government of Kerala in Health Care System is a success in improving the public health delivery system in Kerala. The enhanced involvement and role of PRIs in the functioning of public health institutions in Kerala has resulted in the substantial improvement in the availability of health services and facilities, especially medicines, health officers and health infrastructure.

Chapter- V

System of Dual Responsibilities and Controls: Strengths and Weaknesses in the Public Health Delivery System

This chapter comprises of two parts. The first one deals with strengths of PHIs in Kerala in the context of increased role of PRIs and dual responsibilities and controls. The weaknesses of the systems are covered in the second part.

5.1 Strengths of Public Health system in Kerala

It is imperative to consider the unique features of health scenario in Kerala when we assess the functioning of Public Health Institutions in the context of duality of controls and responsibilities. The state of Kerala is experienced by the diseases of poverty and life style diseases, the diseases of affluence. Public health system is struggling to meet the health requirements of poor, where the growth of the private sector and rise in health care cost are quite high.

5.1.1 Increased Community Participation in management of PHIs and Public Health Initiatives:

Transfer of Public Health Institutions to PRIs has led to the participation of community in the management of PHIs. Hospital Management Committee (HMC) of each PHI is an effective platform for various stakeholders to work for the delivery of public health system.

5.1.2 A Positive Working Relationships between Health Departments and PRI :

Positive intervention of PRIs had led to better management and improved delivery of public health services in the state of Kerala. It is found that about 73 percent PRIs under our survey had established fruitful, creative and positive working relationships. Community participation and control and management of PRIs had resulted in a considerable improvement in direct accountability of public health care institutions. It may be noted that the transferred health care delivery institutions were not administratively under the full control of the PRIs and there were dual controls and responsibilities. In this context, a positive working relationships can be considered as a good result. However, it is a matter of concern that about 15.5 percent of PHIs and PRIs under our survey could not establish a positive working relationships.

5.1.3 Ability to Respond Effectively to Different Needs and Capacities: It is reported that about 87 percent of PRIs, under the survey had the ability to respond effectively to different needs and capacities. About 81 percent PRIs discussed the health-related problems in one or more forums of a PRI that include Gram Sabha, Standing Committee on Health, Working Group and Panchayats Committee, and attend complaints related to public health delivery system. About 61 percent PRIs' Standing Committee on Health of played an important role in formulating health plan for its respective area.

5.1.4. Health Infrastructure and Service Delivery

The system of dual responsibilities and controls of Panchayati Raj Institutions and Public Health Institutions were working well by providing a reasonably good level of public health services in the state of Kerala. Joint initiatives of Panchayati Raj Institutions and directorate of health services or Indian System of Medicine Department or Directorate of Homeopathic have made a considerable impact in improving the operations of various Public Health Institutions under the survey.

The major achievements of PRI in the health sector are the impressive gains in improvement in the health infrastructure and quality of service delivery in the state. It is reported that substantial investments were made in creation of new infrastructure and up-gradation of existing infrastructure in respect of 52 percent PHIs under survey. Moreover, a significant improvement was made in respect of maintenance of 48 percent PHIs. New equipments were purchased by 42 percent PHIs and the upkeep of existing instruments was improved in the case of 32 percent PHIs. Supply of medicines was improved considerably in 93 percent PHIs under survey. Extension of health services, especially in campaigns like immunization and epidemic control were improved considerably in the respect 95 percent PHIs.

5.1.5 PRI-led Voluntary Initiatives for Public Health Projects: After the transfer of Public Health Institutions to PRIs, the state of Kerala has witnessed several innovative ways of health related projects by using donations from the public. Initiatives of PRIs has activated the spirit and willingness of communities to involve in the improvement of public delivery system. Various health-related projects such as Pain & Palliative Care Units were set up through voluntary initiatives under the leadership of 64 percent of PRIs under survey. These projects were operating from PHIs under the jurisdiction of the respective PRIs.

5.1.6 PRI-led Health Projects and Efficient Management of Resources: The results of our field survey revealed that about 71 percent of PRIs implemented PRI-led health projects through the respective PHIs. It is a significant achievement after the transfer of PHIs to PRIs. PRIs and HMCs of the respective PHIs had taken several initiatives to formulate and implement health projects by mobilizing resources, both funds and human resources. Management of resources became more efficient with the active participation of PRIs and HMCs.

5.1.7 Increased Accountability of Health Personnel: According to about 72 percent of respondents, accountability of Public Health Institutions to PRIs had improved significantly. This had resulted in the implementation of a large number of PRI-led health projects.

5.2. Problems of Public Health System in Kerala

Despite several strong points, Public Health Institutions and Public Health Delivery Systems in Kerala is engulfed with certain weaknesses as listed in the ensuing paragraphs

5.2.1 Weaknesses of Select PRIs in Strengthening PHIs

According to 63 percent respondents PRIs were unable to provide professional support in the management of PHIs. It is reported that officials and elected representative of PRI were not keen in visiting the PHI concerned to assess the problems and performance. Some PRIs, instead of concentrating on health infrastructure projects, focuses on projects on the distribution of medicines, which is mainly function of health department. They were not showing much interest in improving the health facilities, labs, machineries which can help the citizens to reduce dependence to private commercial Hospitals. According to about 38 percent respondents some of the PRIs tired to devote attention in allocating funds for creation of infrastructure in other sectors such road, drainage, etc. Some of the scholars had stated that the role of HMC in the creation of health infrastructure was deterrent to some PRI officials who were more interested in other works than creation of health related infrastructure for serving 'vested interest'.

The results of our field survey show that some or other forms of conflict exist between health department and PRIs in respect of 22 percent PRIs. The issues of dual responsibilities and controls were adversely affecting efficient public health delivery system in the case of these PRIs. Lack of adequate professional support, lack of understanding, capacity and confidence of the elected representatives and

officials of PRIs in addressing the health issues were reported as the major reasons. Ego clashes between President or Secretary of PRI and Medical officer of the respective PHI had resulted in operational problems in 16 percent PHIs. Secretary of a Gram Panchayat is junior in status to the Medical Officer. President, elected representatives of some PRIs holds some kind of inferiority complexes while dealing with Medical Officers. It is found that these factors had created a lot of ego issues. About 32 percent Medical Officers believe that they were independent of the panchayat in many functions and have the existing reporting system inappropriate. Cases of ego clash between PRIs and Medical Officers had affected formulation and implementation of new projects adversely. It is also reported that some medical officers were reluctant to attend the meetings on health issues called by the representative PRI.

According to 21 percent respondents, president and elected members of a few PRIs had exercised undue intervention in the running of PHIs in the respective area. For instance, some of them had tried to claim preferential allotment of beds. Some of them had even tried to meddle with purchases and construction works. Some of the health inspectors expressed strong displeasure at assigning some additional work such as health surveys by PRIs. A significant number of medical officers and health staff had made a demand for protection against such possibilities.

5.2.2 Panchayati Raj Act and Lack of a Unified Public Health Act

Kerala does not have a unified Public Health Act. The Public Health Acts in Kerala are archaic. Madras Public Health 1939 that is in force now in the northern districts of Kasragod to Palakkad and part of Thrissur District in Kerala. Thiru- Kochi Public Health Act is applied to part of Trichur to Thiruvananthapuram districts. Lack of a unified Public Health Act can be attributed to the several problems of Kerala's public health delivery system. The role of PRIs vis-à-vis state government is not specified in this Act.

There is a need for unifying the following four enactments on public health.

- The Travancore Cochin Public Health Act, 1955
- The Madras Public Health Act, 1939
- The Travancore Epidemic Diseases Act, 1073 and
- The Cochin Epidemic Diseases Act, 1072

The Act should be in sync with Kerala Panchayati Raj Act 1994 and Food safety and Standards Act 2006. A draft bill was prepared that contains provisions for involving local authorities in maintaining hygienic conditions and preventing or controlling the outbreak of epidemic diseases. Issues like prevention of communicable diseases, control of insects, control of H.I.V./AIDS, food control, maintenance of markets/slaughter houses/meat stalls etc. are dealt with in the Bill. Government of Kerala published a Draft Public Health Bill, in 2009. Unfortunately this Act is not yet passed legislative assembly of Kerala. Delay in the enactment of a unified public health Act for Kerala is a matter of serious concern.

5.2.3 Hospital Management Committee and PRIs

According to the results of our field survey innovative and sincere efforts in mobilizing funds were totally missing in the case of around 25 percent HMCs under survey and as a result, these HMCs became mere fund disbursement entities. Moreover, these HMCs had not facilitated creative and proactive discussions and exchange of ideas and inputs between elected representatives and officials of PRIs and Health officials.

According to a State government order in March 2007 Hospital Management Committee should maintain regular accounts of all its funds and moreover, transactions should be annually audited by a Chartered Accountant or by a person authorized by Government. However, According to the Report on the Chief Controlling Officer based audit of Health and Family Welfare Department for the year 2009-10, around 45 percent of audited units had not prepared the accounts of HMC while 50 percent units had not got the HMC accounts audited. These HMC accounts included receipt books and priced IP or OP tickets, etc.

About 37 percent respondents reported that powers given to Standing Committees on Health or President of PRI by the Panchayati Raj System were not utilised effectively and properly in evaluating the performance of staff and delivery system of the concerned PHIs. Some of the PRIs were not taking initiatives to monitor staff with respect to leave, attendance, etc.

Few cases of non-receipt of reimbursement of power or water charges from PRIs to HMCs were reported during the field survey. Reluctance on the part of PRIs to meet power or water charges of the units transferred to them had also resulted in HMCs being compelled to meet these periodical charges temporarily from their funds. But the required reimbursements to HMCs were not received from PRIs.

5.2.4 Shortage of Doctors and Health Personnel

5.2.4.1 Shortage of Doctors: Manpower is an important prerequisite for the efficient functioning of PHCs. One of the major problems that undermined the effectiveness of Public Health Institutions was the shortage of doctors. There was a glaring gap between number of sanctioned post of the doctors and their actual availability in Public Health Institutions. The results of the field survey found that the available number of doctors in rural areas was on a decreasing trend. Several doctors had been showing reluctance in working in rural and remote Public Health Institutions.

There were over 1000 vacancies in the health services, of which over 300 posts were those of specialists. Though the posts of causality medical officers were created in all the Taluk hospitals following the implementation of specialty cadre, there were no doctors to fill the post.

5.2.4.2 Heavy Shortage of Staff: Many key posts in the Department of Health Services (DHS) were also lying vacant. A significant percentage of posts were vacant at all the levels. There was a major shortfall in Male Health Workers, resulting in poor male participation in Family Welfare and other health programmes and overburdening of the ANMs.

5.2.4.3 Unauthorized Absence of Medical Staff: It is reported that unauthorized absence of doctors and other medical staff was a major problem. Details of medical and paramedical staff on unauthorized absence were not made available by the DHS.

5.2.5 Conflict of Interest: Private Practice of Doctors and Service in PHIs

5.2.5.1 Admission of Inpatients: If the doctor provide private medical consultancy in a distant place there is a tendency of avoiding admission of in-patients. It may be noted that inpatients need more medical care in day and night. Such doctors tend to reduce their time and care in the PHI they serve and instead concentrate more on private practices to increase their income. The feedback from our field survey indicates that there is a direct relationship between the location of private practice of a doctor in the PHI and number of Inpatients admitted to the same PHI. If a particular doctor of a PHI provide private medical consultancy in the neighboring area there is a tendency of admitting maximum number of the patients to the PHI. This shows that doctors are encouraged to admit maximum number of patients after receiving private consultation fee to PHI where the doctor is serving. For instance, in

Vadakancherry Taluk hospital where most of the doctors undertake private practice in a distant place, just 58 beds were occupied against 117 capacity in the month of July 2011 even when there was a large number monsoon-related diseases in the area. PRIs are supposed to take appropriate action to control and monitor doctors in respect of their service in the PHI. During our field survey about 32 percent respondents admitted that there were several cases of lack of intervention in controlling and monitoring medical personnel by PRIs.

5.2.5.2 Service in PHIs: Several cases of lack of commitment of doctors to their services in PHIs due to their deep involvement in private practice were reported from the field. There were conflicts of interest among doctors in respect of their private practice and commitment to service in the PHIs. It may be noted that private practice was allowed by state government for doctors in Public Health Institutions except medical colleges.

5.2.5.3 Lack of transparency in transfer of Health Personnel: There was a lack of transparency in transfer of medical officers and health personnel. According to 92 percent respondents, political parties involve in corruption while dealing with transfer of medical officers and health personnel in PHIs. Within this framework a certain section of doctors resorted to malpractices in getting posting suitable to their private practice neglecting to that commitment to PHI and public health service delivery.

5.2.6 Implementation of Upgradation of PHIs: Undue Delay

Upgradation of PHIs from one level to the next higher level through notification of government is quite common in Kerala. For instance, PHC is upgraded to PHC 24x7 and PHC 24x7 is upgraded to CHC and so on. It is reported that there was a long delay in the implementation of required up gradation in line with the prescribed norms in respect of infrastructure, equipment and staff pattern. It is found that Chelakkara CHC Trissur was upgraded as Taluk Hospital in 2010. However, the basic infrastructure such as operation theater and 24 hours casualty was not made available till November 2011. The sudden upgradation without improving the infrastructure and other requirements such as change in the staff pattern had invited several complaints from the patients and general public.

5.2.7 Lack of Integration of Health systems

About 18 percent PRIs under survey had all the three types of PHI facilities - Allopathic, Ayurvedic and Homoeopathic - in their respective jurisdiction. It was found that there was no integration among them at the respective local government level.

5.2.8 Utilization of grants for medicines, medical equipments and dietary articles

Electricity water and telephone charges of PHCs, CHCs and other units transferred to Local Self Government Institutions are the obligatory expenses of the concerned PRIs. Such expenses are to be met on priority basis out of their General Purpose Grant. According to state government order in November 2008, Block Grants' should be utilized only to meet cost of medicines, medical equipments and dietary articles. It was found that around 20 percent PRIs had utilized 'Block Grants', instead of from General Purpose Grant, to pay electricity and telephone charges. This had reduced the purchase of medicines and medical equipments by a significant number of PHIs.

5.2.9 Failure to Prevent Idling of Staff, Buildings and Equipments

A section of PRIs, health official and HMCs were found insensitive to issues of unutilized infrastructure and equipment. They could not address the issues of idling of building equipments and medicines. The results of our field survey reveal that there were case of idling of staff, buildings and equipments in PHIs. Mismatch in installed infrastructural facilities and man power availability in various units resulting in idling of staff, buildings and equipments are reported from the five PHIs. The details are given in Table 5.1.

Table 5.1

Idling of Staff, Buildings, Equipments

Sr. No	Institution affected	Infrastructure Idling	Reason for Idling	Money Value (Rupees in lakh)
1	K.R. Narayanan memorial Super Speciality Hospital, Uzhavoor, Kottayam	10 Medical and para medical staff posted during the period April 2006 to 2010 is idling	The PHC was upgraded in May 2006 to a Super Specialty Hospital in memory of Former President of India, Sri K.R.Narayanan. The PHC building was demolished for constructing new one after shifting to a rented building . The IP facility was also stopped. But even before starting the construction of the new Hospital Building, 10 out of 50 newly created posts were filled up without any additional facility to provide to patients.	44.54
2	PHC Madappally	2 Medical Officers, 3 staff Nurses, one Nursing Assistant and one Hospital Attendant were idling from May 2005	The 24 bedded IP Wing of PHC Madappally is not functioning from May 2005 due to acute scarcity of water. However, the Medical and para medical staff posted exclusively for the IP section continued to be in position.	NA

Sr. No	Institution affected	Infrastructure Idling	Reason for Idling	Money Value (Rupees in lakh)
3	Community Health Centre, Edayarikapuzha	Six bedded IP ward building inaugurated in December 2009 is idling	Proposal of Block Panchayat for increasing the bed strength pending with Government	Cost Not Available
4	Taluk Headquarters Hospital, pampady Kottayam	38 equipments costing Rs.53 lakh for use in the IP Block remain idle from March 2008	Construction of IP Block Building was awarded in October 2007. Only 67% of the work has been completed by December 2010. The X-ray and Dental X-ray machines are kept in the store room against radiation safety regulations.	53
5	District Hospital, Kottayam	7 Kits for testing Dengue Fever and Chickun Gunia	The Hospital has no facilities to conduct the tests (May 2010)	Free Supply

Source: Field Survey

Instances of un-utilised Hospital buildings, Operation theatres, training Centres and residential quarters were reported during the field survey. A case of delay in issuing the completion certificate of the new building was also reported.

5.2.10 Insufficient Facilities for Storing Drugs

PRIs and Health official were found to be incapable of ensuring sufficient facilities for storing drugs in a few PHIs. Medicines and vaccines are to be stored as prescribed in packing label at the right temperature and humidity. Keeping IP fluids and other bottle packs in high vertical rows may lead to contamination of the contents due to possible breakage of bottles. Storing the medicines on the floor or outside the store room is against the label instructions of the manufacturer. Instances of storing drugs and medicines under unsafe conditions which may lead to contamination or damage were reported from 13 percent PHIs. For instance, Cartons of medicines were kept on the floor of the store room at one CHC, while outside the store room at another CHC. Cartons of IV fluids were kept in very high vertical rows at one PHC. We had also found one store room with broken doors and roof leaking when it rains and was unsafe to store drugs and medicines. Some of the Medical Officers attributed lack of sufficient storage space for the poor storage conditions.

Chapter- VI

Participation of Panchayati Raj Institutions in Rural Health Delivery System: Conclusions and Recommendations

6.0 In the first section of this chapter we discuss suggestions and action plan for improvement in the effectiveness of Panchayati Raj Institutions in Health Care System in the State of Kerala. The second section covers lessons for other States drawn from the effectiveness of Panchayati Raj Institutions in Health Care System in Kerala with a special reference to impact of duality and role of bureaucracy.

6.1 Effectiveness of Panchayati Raj Institutions in Health Care System in the State of Kerala: Major Findings

6.1.1 Transfer of PHIs to PRIs: Kerala has a strong Panchayati Raj system with a total of 1165 Panchayati Raj Institutions that consist of 999 Gram Panchayats, 152 Block Panchayats and 14 District Panchayats. Subsequent to the enactment of the Panchayati Raj Act various Public Health Institutions were transferred to the three-tier Panchayats in Kerala in February 1996. Kerala has a total of 2706 Public Health Institutions that comprises of 1272 Allopathic, 864 Ayurvedic and 570 Homeopathic Institutions. Gram Panchayats were given Dispensaries, Primary Health Centers and Sub Centers, Maternity and Child Welfare Centers, Immunization and other preventive measures, Family welfare programme and Sanitation programme. Community Health Centre and Taluk Hospitals were placed under Block Panchayat. Management of District Hospitals, setting up of Centers for care of special categories of handicapped and mentally disabled people and co-ordination of centrally and state sponsored programmes at district level were given to District Panchayat.

6.1.2 Dual Responsibilities and Controls System: Functionaries/ personnel of Public Health Institutions are not yet transferred to Panchayati Raj Institutions. Doctors and other officials of Allopathic., Ayurvedic and Homeopathic institutions are still under the Directorate of Health Services, Indian System of Medicine Department and Directorate of Homeopathic respectively. Regular employees of Public Health Institutions continue as state government employees under respective departments. Panchayati Raj Institutions are given a certain level of control over these functionaries/ personnel. However, their controls and responsibilities are limited. Their salary is continuously paid by

the Department of Health Services or Department of Indian System of Medicine or Directorate of Homeopathy, Government of Kerala. They are responsible for recruitment, placement and promotion of health personnel and Panchayati Raj Institutions do not have any role in these activities. However, Government of Kerala has given managerial and part disciplinary control over the staff of Public Health Institutions to the concerned Panchayati Raj Institutions. Panchayati Raj Institutions are not in a strong position to take action against regular staff who are appointed by state government. It is significant to note that Panchayati Raj Institutions and health personnel hold joint responsibilities and they share certain responsibilities. Panchayati Raj Institutions have the full responsibility for building, upgrading and maintaining infrastructure. Both Panchayati Raj Institutions and health officials involve in the supply of drugs while the latter is responsible for the supply of major share of drugs. It is significant to note that both Panchayati Raj Institutions and officials of Public Health Institutions have disciplinary control over health staff. This situation has resulted in dual responsibilities and controls system.

6.1.3 Hospital Management Committee: It is a common platform for Panchayati Raj Institutions and Health Officials. It is a democratically constituted body that provides a platform for elected representatives and officials of Panchayati Raj Institution and health officials to work jointly for the efficient functioning of Public Health Institutions. Each Public Health Institution under Allopathic, Ayurvedic and Homeopathic system has a Hospital management Committee. In order to manage a public health institution it is required to constitute a Hospital Management Committee under the leadership of the elected head of the concerned local government. While the chairperson of Hospital management Committee is elected head of the local government, Medical Officer of the respective Public Health Institution is its convener. . Hospital management Committee consists of representatives from Panchayati Raj Institutions and Public Health Institutions, representatives of political parties, professionals and civil society organization. Members of standing committee on Health and Education of Panchayati Raj Institution are the members of Hospital management Committee. Engineers of local offices of Kerala Water Authority and Kerala State Electricity Board are also members of Hospital management Committee.

6.1.4 Operation of Dual Responsibilities and Controls System: Day –to- day administration of each Public Health Institution is carried out by its Medical Officer. Medical officer or superintendent of a Primary Health Centre, Community Health Centre or District Hospital is implementing officer of the respective Primary Health Centre, Community Health Centre or District Hospital. It is the medical officer

who heads the team of health officials responsible for providing medical services. Panchayati Raj Institutions carry out overall management of PHI, maintenance of existing infrastructure including building and equipments, building up new infrastructure, allot funds for purchase of certain percentage of medicines, equipments and furniture and take corrective measures and suitable actions on the complaints received from patients and public against PHIs. The result of our field survey reveals that 86 percent of Panchayati Raj Institutions had carried out activities to improve the health delivery system of Public Health Institutions in their respective jurisdiction

6.1.5 Positive Impact of Increased Role of PRIs: The results of our field survey clearly indicate that the system of dual controls and responsibilities yielded good results when elected representatives and officials of Panchayati Raj Institutions and medical officers were in good terms and maintain positive and cordial relationships. There is a substantial improvement in respect of attendance of health officials, availability of medicines, quality of services and quality of infrastructure due to the intervention of PRIs in 2012 compared to 2005. However, when there was a conflict the effectiveness of Panchayati Raj Institutions in Public Health Institutions was adversely affected. It is the responsibility of each tier of Panchayati Raj Institution to prepare health plan for area under their jurisdiction. Panchayati Raj Institutions facilitate the discussion of health needs of people by organizing meetings of Gram Sabha. With the involvement of working group on Health, Standing Committee on Health formulates the list of projects under health plan. Chairperson of the Standing Committee on Health is the head of this working group while the Medical Officer of the concerned Public Health Institution is the convener. The health plan of Panchayati Raj Institutions covers issues related to water and sanitation, Anganwadis and Public Health Institutions in their jurisdiction. Projects related to the creation and upgradation of health infrastructure and some other innovative projects are formulated under the health plan. Village Panchayat Committee takes final decision based on the funds to be allocated to the health sector and working group firms up the health related project proposals. It is the responsibility of Village Panchayat to include the finalized proposals in its annual Plan that consists of different sectors. The health projects of Panchayati Raj Institutions after the vetting by Technical Advisory Committees are sent to the District Planning Committee for approval. The plan is implemented after the approval by District Planning Committee

6.1.6 Public Health Institutions - Sources of Funds: Public Health Institutions in the state of Kerala have five major sources of funds i.e., State Plan and Non-Plan Fund, Grant from Local Government

Institutions, National Rural Health Mission Fund, Hospital Management Committee Fund and Donations from Individuals and Organizations. The source of Hospital Management Committee Fund includes fee paid by patient at the time of registration of Out Patient/In Patient, donation from public and fund received from governments such as National Rural Health Mission.

6.1.7 Increased community participation in the management of Public Health Institutions: Major strengths of Public Health delivery system in Kerala are now mainly in the increased community participation in management of Public Health Institutions and Public Health Initiatives, A Positive working relationships between Health Departments and Panchayati Raj Institution, ability to respond effectively to different needs of local people ,enhanced health infrastructure and service delivery, Panchayati Raj Institution-led voluntary initiatives for Public health projects are other positive outcomes of dual responsibilities and controls system

6.1.8 Dual control and responsibilities- Problems: Public health delivery system under the dual control and responsibilities is engulfed as the certain problems as listed below:

6.1.8.1 PRIs and Lack of adequate professional support: Inability of a significant number of Panchayati Raj Institutions in providing professional support in the management of Public Health Institutions is an important issue. Lack of adequate professional support and absence of understanding, capacity and confidence of the elected representatives and officials of Panchayati Raj Institutions in addressing the health issues were reported from a few Panchayati Raj Institutions during our field survey. Ego clashes between President or Secretary of Panchayati Raj Institution and Medical officer of the respective Public Health Institution had resulted in operational problems in 16 percent Public Health Institutions. Shortage of Doctors and Health Personnel is another serious problem. As doctors of Public Health Institutions are allowed to carry out private practice in Kerala, time and interest allocating between Private Practice and Service in Public Health Institutions by a doctor had affected their commitment adversely. The issue of conflict of interest of doctors between private practice and service in Public Health Institution is not yet addressed.

6.1.8.2 Lack of a Unified Public Health Act : Kerala does not have a unified Public Health Act. The Public Health Acts in Kerala are archaic. The Acts are not in line with Kerala Panchayats Raj Act 1994 and Food safety and Standards Act 2006.

6.1.8.3 Lack of integration of Health Institutions at the respective local government level While about 18 percent Panchayati Raj Institutions under survey had all the three types of Public Health Institution facilities - Allopathic, Ayurvedic and Homoeopathic - in their respective jurisdiction it was found that there was no integration among them at the respective local government level.

6.1.8.4 PRIS and Management: Role of Panchayati Raj Institutions in the operation and management of these health institutions was limited. It may be noted that a Public Health Institution is a professional institution staffed by technical people and several Panchayati Raj Institutions under our survey were not in a position to involve actively in the management of Public Health Institution. Hence, in practice, jurisdiction of Panchayati Raj Institution ended with just administrative oversight.

6.1.8.5 Lack of Coordination: It is found that inadequate involvement of Panchayati Raj Institutions and the lack their coordination with health officials and community led to the inefficient functioning of some rural Public Health Institutions. Increased role and dominance of health officials vis-a vis Panchayati Raj Institutions and adverse impacts of duality of controls and responsibilities undermined the efficiency of the rural health delivery system

6.2 Effectiveness of Panchayati Raj Institutions in Health Care System in the State of Kerala:

Suggestions for Improvement

6.2.1 Responsibility Mapping: Certain issues of dual responsibilities and controls need to be addressed by developing a new system of clear task assignment. The new system should define clear role, activity and responsibility mapping. Administrative and technical functions should be made precise and unambiguous. It is important to introduce well-defined procedures on the management of funds by the Panchayati Raj Institutions and health departments. Responsibility of management of drugs, assets and facilities should be assigned. Both the functions of management of health care institutions' and administrative control need to be defined clearly. Roles and responsibilities of standing committee on health should also be made explicit. The role of standing committee on health in each Panchayati Raj Institution should be strengthened.

6.2.2 Technical expertise to Panchayati Raj Institutions on health issues: There is an urgent need to provide technical expertise to Panchayati Raj Institutions on health issues, projects and programmes. Panchayati Raj Institutions should get proper knowledge and awareness about the health issues.

6.2.3 Orientation and Technical Guidance to Health Officials: Medical officers and other health officials should also be reoriented and trained on technical aspects of health planning and management in the context of dual controls and responsibilities. There is a need for creating positive understanding between Panchayati Raj Institutions and Medical officers. Training programme or orientation programme need to be organised occasionally for both elected representatives and Medical Officers.

6.2.4 Convergence of different agencies of health sector: There is a good scope for the integration and convergence of different agencies of health sector. Different agencies such as Health and Sanitation Mission and Clean Kerala Mission have been working in the area of public health. The convergence should be carried out at the level of district Planning Committee.

6.2.5 Integration of health plan: Health plan of each Panchayati Raj Institution with district plan and again, with the health plan of the state. Concerned health departments should be involved in this process by Panchayati Raj Institution, District Planning Committee and State Planning Board.

6.2.6 Avoid idling of building and equipments: It is important to avoid idling of building equipments of Public Health Institutions in Kerala. Proper coordination has to be ensured while providing additional infrastructures like buildings and Man power in units to avoid idling.

6.2.7 Availability of Doctors and Health Personnel: Necessary steps need to be taken to improve the availability of adequate doctors and health personal in Public Health Institutions. Action may be taken to fill up all vacant posts, and control unauthorized absence of medical and paramedical staff.

6.2.8 Hospital management committees: Members of hospital management committees should be given regular training or orientation on the role and functioning. KILA, the local government training centre in Kerala can be entrusted with this task.

6.3 Effectiveness of Panchayati Raj Institutions in Health Care System in the State of Kerala: Lessons for other States

6.3.1 In order to draw lessons from Kerala's experience on public health delivery system, it is significant to understand the differences between Kerala and other states in the context of devolution of power to Panchayati Raj Institutions. Kerala is the only the state which devolved powers to Panchayati Raj Institutions and urban local bodies in the health sector. Moreover, the state of Kerala has built up capacity of both rural and urban local governments in the area of governance in the area of governance by investing time and resources. In this context, the following suggestions may be considered by Indian states to improve public health delivery system.

6.3.2. Devolution of Power : In line with 73rd Constitution Amendments health should be transferred to Panchayati Raj Institution and powers shared be devolved to Panchayati Raj Institutions in letter and spirit. In order to improve the rural health scenario of India it is quite significant to enhance the capacity of panchayats to control and manage provisioning of health services. Moreover, Panchayati Raj Institutions should be in a position to develop an effective health management information system.

6.3.3 Increased Community Participation in Management of Public Health Institutions and Public Health Initiatives: In view of the increasing dimensions of issues related to public health delivery it is essential to ensure the participation of community in the implementation of public health activities and management of Public Health Institutions. This can be achieved by the transfer of Public Health Institutions to Panchayati Raj Institutions. Control and management of Panchayati Raj Institutions can make a considerable improvement in direct accountability of public health and health care institutions.

6.3.4 Delivery of Public Health System: An Effective Platform for Various Stakeholders:

Each Public Health Institutions needs involvement, cooperation and support of different stakeholders such as representatives of communities, political parties, officials of relevant departments and public utilities apart from elected representatives and officials of Panchayati Raj Institution and health officials. While Hospital Management Committees of each Public Health Institutions is an effective platform for various stakeholders to exchange ideas, discuss issues and formulate action plan for the delivery of public health system in Kerala. Similar platforms can be created for Public Health Institutions in other States.

6.3.5 Panchayati Raj Institutions and Local Health Needs: A strong Panchayati Raj Institution system can provide different forums and platforms for discussing health needs of people and formulating health plan for its respective area. These forums can include Gram Sabha, Panchayats Committee and subcommittee. It will be appropriate for each state to strengthen Panchayati Raj Institutions to address health needs of people.

6.3.6 Health Infrastructure and Service Delivery: Given the condition of the health infrastructure shortage in various Indian states Kerala approach can be used for achieving improvement in the health infrastructure and quality of service delivery. Joint initiatives of Panchayati Raj Institutions and health departments can make a considerable impact in improving the infrastructure of various Public Health Institutions in a state. This can include creation of new infrastructure and up-gradation of existing infrastructure, purchasing equipments. Even extension of health services, especially in campaigns like immunization and epidemic control can be achieved under such a joint initiative.

6.3.7 Panchayati Raj Institution-led Voluntary Initiatives for Public Health Projects: There is good scope for mobilizing local resources for the implementation of public health projects under the initiatives of Panchayati Raj Institutions. Public health projects including several innovative health related projects can be implemented by using donations from the public. Initiatives of Panchayati Raj Institutions can activate the spirit and willingness of communities to involve in the improvement of public delivery system.

6.3.8 PRIs & PHIs : Development of Performance based Indicators : An assessment of the involvement of PRIs in the operation and management of a Public Health Institution can be carried using certain performance based indicators. These performance or outcomes can be broadly divided in to different categories such as improved physical infrastructure of Public Health Institutions in a Panchayat Area, improved human infrastructure of Public Health Institutions due to the intervention/initiatives of PRI and execution of new projects in a Public Health Institution due to the intervention/initiatives of PRI. The performance based indicators include increase in the number of PHI having own land due to the intervention/initiatives of PRI, increase in the number of Beds added to PHI, regular maintenance of physical infrastructure and increase in the number of Medical Officers, paramedical staff and other staff.

Although achievements of Kerala in respect of decentralization in the field of public health delivery system , it has fallen short of what was originally planned. However, dual responsibilities and controls in public health care system has made a positive impact on rural health scenario of Kerala and most of their experiences can be considered by other Indian states while formulating action plan strengthening Public Health delivery system.

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Annexure-I

Demographic Profile of the Districts

Profile	Alappuzha	Kottayam	Malappuram	Pathanamthitta	Thiruvantha- puram	Thrissur
Area (sq. km.)	1,414	2208	3,550	2642	2,192	3,032
Population	21,21,943	19,79,384	41,10,956	11,95,537	33,07,284	31,10,327
Population Density	1,501	896	1,158	453	1,509	1,026
Males	10,10,252	9,70,140	19,61,014	5,61,620	15,84,200	14,74,665
Females	11,11,691	10,09,244	21,49,942	6,33,917	17,23,08	16,35,662
Sex- ratio (Number of Females per 1000 Males)	1,100	1,040	1,096	1,129	1,088	1,109
Population in the Age-Group 0-6 Male	95,556	86,113	2,81,958	46,582	1,47,777	1,48,428
Population in the Age-Group 0-6 Female	90,466	82,450	2,70,813	44,919	1,42,884	1,40,698
# Literacy rate (%) Male	97.90	97.17	95.78	97.70	94.60	96.98
Literacy rate (%) Female	94.80	95.67	91.55	96.26	90.89	93.85

#Literacy rate is the percentage of literates to total population aged 7 years and above.

Source: <http://censusindia.gov.in/> Census of India 2011

Annexure-II

Allopathic Public Health Institutions and Bed Status

Category of PHI	Alappuzha		Kottayam		Malappu-ram		Pathanam-thitta		Thiruvantha-puram		Thrissur	
	No	Beds	No	Beds	No	Beds	No	Beds	No	Beds	No	Beds
General Hospital	1	174	1	341	0	0	2	714	1	747	0	0
District Hospital	1	NA	1	374	1	554	1	210	1	337	1	240
Specialty Hospitals	4	1337	3	84	2	1184	1	0	5	1443	3	1021
Taluk Hospitals	6	1019	5	738	6	881	3	406	5	1087	6	917
Community Health Centres	17	403	17	609	22	536	13	242	24	890	26	913
24 X 7 Primary Health Centres	18	266	13	316	20	330	4	72	8	121	11	166
Primary Health Centres	39	54	41	62	63	184	39	288	62	182	68	262
Others	2	0	0	0	9	36	1	10	10	46	7	0
Total	87	3253	81	2524	123	3705	64	1942	116	4853	122	3519

Source : <http://spb.kerala.gov.in/>

Annexure-III

Ayurvedic Public Health Institutions and Bed Status

Category of Ayurveda Hospital	Alappuzha	Kottayam	Malappuram	Pathanam-thitta	Thiruvanthapuram	Thrissur
District Ayurveda Hospital	1	1	1	1	1	1
Government Ayurveda Hospital	8	8	8	2	11	14
Special Ayurveda Hospital	1	0	0	2	2	1
Government Ayurveda Dispensaries	56	43	68	40	64	79
Total Number	66	52	77	45	78	95
Total Number of Beds	180	160	220	150	285	293

Source : <http://spb.kerala.gov.in/>

Annexure-IV

Homeopathic Public Health Institutions and Bed Status

Category of Homeo	Alappuzha	Kottayam	Malappuram	Pathanam-thitta	Thiruvanthapuram	Thrissur
Government Homeo Hospital	3	3	2	1	4	1
Government Homeo Dispensaries	37	44	42	26	52	35
Total Number	40	47	44	27	56	36
Total Number of Beds	75	175	25	0	185	25

Source : <http://spb.kerala.gov.in/>, www.homeopathy.kerala.gov.in,

Annexure-V

Medical and Paramedical Personnel under DHS

Staff Category	Alappuzha	Kottayam	Malappuram	Pathanam-thitta	Thiruvanthapuram	Thrissur
Medical Officers	276	260	307	216	440	390
Dentists	6	5	7	4	8	8
Senior Nurses	124	166	74	41	166	91
Junior Nurses	530	662	414	288	662	417
Lady Health Inspectors	71	61	98	44	71	99
Pharmacist	133	101	137	74	189	148
JPHN(ANMS)	381	339	590	266	517	484
Junior Health Inspectors	215	222	335	179	296	320
Health Inspectors	53	53	83	42	75	79
Population for One Doctor	8014	7979	13611	5911	7977	8215