CHAPTER II

REVIEW OF LITERATURE

a. Public health problems in India and abroad

b. Primary health care in India and abroad

c. Role of village level health workers in the delivery of primary health care

2.4 Summary
CHAPTER II

REVIEW OF LITERATURE

The review of related literature is an important pre-requisite to actual planning and execution of any research work. A review of literature on the research topic makes the researcher familiar with the existing studies. The task of reviewing research literature involves the identification, selection, critical analysis and written description of existing information on a topic.

The researcher did an extensive review of literature related to the present study. It includes books, reports, daily news, journals and publications from the internet.

The literature reviewed is organized under the following headings:

2.1 Public health problems in India and abroad.

2.2 Primary health care in India and abroad.

2.3 Role of village level health workers in the delivery of primary health care.

2.1 Public health problems in India and abroad

Radhakrishnan (2000) conducted a study on the association of socio-economic and demographic factors on birth weight. They performed a cross sectional survey of all infants born within a specific period in a
selected panchayat of Thiruvananthapuram district, Kerala, India. The study findings revealed that low maternal socio-economic status was the principal determinant of low birth weight. Improving the facility of peripheral health care, antenatal services and providing supplementary feeding for the pregnant women of low socio-economic status may be a short-term option to control the problem.

Kerala’s public sector spending reveals that in recent years, expansion has been limited to revenue expenditure rather than capital, and salaries at the cost of supplies. Many developments outside health, such as growing literacy, increasing household income and population ageing, probably fuelled the demand for more health care facilities. Since the government institutions could not grow in number and quality at a rate that would have satisfied this demand, health sector development in Kerala after the mid-1980s has been dominated by the private sector. At this point of time, the government must take the lead in quality maintenance and setting of standards (Ramankutty, 2000).

AIDS prevalence in Kerala is less intense than in other south Indian states. Kerala has high literacy and severe unemployment as a result of which a large number of local people live and work outside the state. It is known from studies that 80% of the infected people had acquired the infections while working outside the State. In India, HIV prevalence is
much lower in rural population as compared to urban population. Kumar (2000) conducted a study on 70 HIV positive cases detected out of 4932 samples from selected testing centers in Kerala. It was found that 56 were rural and 14 were urban giving a rural urban ratio of 4:1. This was rather unexpected and would necessitate a shift in the prevention strategy.

Rajaram, Sunil and Lisa (2000) assessed the nutritional status of children below five years using anthropometric measurements in two states of India, Kerala and Goa. The results showed that the relative prevalence of under-weight and wasting was high in Kerala but the prevalence of stunting was at medium level. In Goa, on the other hand the relative prevalence of underweight and stunting was very high. Both socio-economic and family planning variables were significantly associated with malnutrition in these States.

Sanghvi, Thankappan, Sarma and Sali (2001) assessed the potential risk factors for child malnutrition in rural Kerala. Mothers of 34 children with low birth weight were interviewed for information about maternal health and child feeding patterns. Statistical analysis showed that current maternal body mass index, infant birth weight and excessive maternal vomiting in pregnancy were significant risk factors for current child underweight status.
A community based study conducted in the Indian urban slum area by Gaurav and Karthikeyan (2002) had depicted the demographic and health profile of the aged population. A house-to-house approach was adopted, in which the geriatric population comprised 6.4% of the total population. Out of the 202 participants in the study, 32.18% suffered from cataract, 16.84% from hypertension and 9.41% from diabetes mellitus.

A study of morbidity pattern among 300 elderly people of Udaipur, Rajasthan revealed that 48% had hypertension. It was also found that 11.5% of males and 18.2% of females suffered from bronchial asthma. Among females, 20% suffered from musculoskeletal problems whereas only 11% of males complained about it. Feeling of loneliness was seen in 21.05% males and 27.3% females (Rahul, Choudhary and Uday Shankar, 2004).

The prevalence of ailments and hospitalization in Kerala was examined by surveying 24,401 people from 4928 households. Age and seasonality had considerable effects in the morbidity of individuals. The burden of ill health was higher in rural areas than in urban areas. People who were more likely to have a better life style had a higher level of morbidity and hospitalization. Regional differences were seen, with levels of morbidity and hospitalization higher in the comparatively developed regions of southern Kerala, than in northern Kerala (Dilip, 2002).
Patil, Somasundaram and Goyal (2002) reported that about 75% of health infrastructure, medical manpower and other health resources of India are concentrated in urban areas where 27% of the population lives. Contagious diseases such as water-borne diseases, air-borne diseases, vector-borne diseases dominate the morbidity pattern in India. However, non-communicable diseases such as diabetes, hypertension, cancer, mental illness and accidents are also on the rise. The health status of Indians, is still a cause for grave concern, especially that of rural population. To improve the prevailing situation, the problem of rural health is to be addressed both at macro (National and State) and micro (District and Regional) levels. This is to be done in a holistic way, with a genuine effort to bring the poorest of the population to the centre of fiscal and social policies.

Gupta and Sanjeev (2003) projected that global prevalence of type one Diabetes Mellitus will double from 135 million in 1995 to 300 million by the year 2025. The greatest increase will be in India from 19.4 million to 57.2 million while in the USA, it is expected to increase from 13.9 million to 21.9 million during the same period.

Sharma, Joshi, Tiwari, Katyal and Gill (2003) reported that among the arthropod-borne viral diseases, dengue fever is the most common. It is estimated that every year 50 million infections occur world wide with five lakh cases of dengue fever. Investigators carried out a larval survey among
68,237 houses in Delhi and found that 1024 houses were positive for Aedes larvae. Key breeding sites of Aedes aegypti larvae were coolers (45%), earthen pots (15%), tyres (21%), cement tanks (5%), junk yards (10%), and flower pots (4%). Entomological indices increased from July to October, with peak in August and September. Researchers concluded that water coolers and tyres constitute 66% of Aedes larval population. So these habitats should be surveyed at weekly intervals particularly in post-monsoon season followed by effective anti-larval measures.

Globalization as is being practiced today, does not encourage free flow of goods, ideas and people across the globe. On the contrary, it perpetuates and increases control over resources, technology, knowledge and capital. Public health is an obvious casualty of globalization. Compression of funds available with States has had a number of far reaching effects. Salaries constitute 70 to 72% of expenditure for most major programmes and the trend is most distorted in the case of rural health programmes. Globalization also leads to trans-nationalization of public health risks. A major effect has been the resurgence of communicable diseases across the globe and there is nobody to pay for drugs required to treat diseases in the poorest countries. Today’s medical research is highly skewed in favour of heart diseases and cancer as compared to other diseases like Malaria, cholera and dengue fever, which kill many people (Sengupta, 2003).
Shaji, Bose and Verghese (2005) investigated the prevalence, psychosocial correlates and risk factors of various dementia disorders in the city of Kochi, Kerala. A door-to-door survey was conducted to identify residents aged more than 65 years using cluster sampling. Of the 1934 people screened with mini-mental status examination, prevalence of dementia was 33.6 per 1000 population. Alzheimer’s disease was the most common type (54%) followed by vascular dementia (39%) and 7% of cases were due to infection, tumour or trauma. Family history of dementia was a risk factor for Alzheimer’s disease and history of hypertension was a risk factor for vascular dementia. The study findings suggested that public health system should be strengthened to identify the risk factors at an early stage.

Ramanakumar and Aprajita (2005) surveyed the respiratory burden in rural India and found that Asthma and Bronchitis prevalence rates in Karnataka, Gujarat, Haryana, Uttar Pradesh, Kerala and Madhya Pradesh are above the national average. Tuberculosis prevalence was high in Madhya Pradesh, Uttar Pradesh and Gujarat. Maharashtra and Tamilnadu recorded lowest prevalence. It also revealed that poverty and unhealthy environment are strongly related to respiratory disorders. Though national health plans have succeeded in reducing fatality of the respiratory diseases to a certain extent, there is however, a great need for improved and effective health programmes and socio-economic development are mandatory in rural areas to achieve desired health goals.
Joshi, Chauhan, Donde, Tryambake, Gaikwad and Bhadoria (2006) assessed the reproductive health problems and help seeking behaviour among urban school going adolescents. A sample of 300 urban school going adolescents between 11-14 years were chosen at random and assessed using self-administered questionnaire; adolescent friendly services were provided with medical screening. Findings revealed that 72% of girls and 56% of boys reported having health problems during the survey. However, only 43% of girls and 35% of boys reported to the clinic voluntarily to seek help. Investigators suggested interventions to increase help seeking behavior of adolescents through parental involvement, counseling services and regular medical checkups in the schools.

Mohindra, Haddad and Narayana (2006) examined the social patterning of women’s self-reported health status in India. A cross-sectional household survey of 4196 women of a selected panchayats of Kerala was done. Results revealed that women from lower castes (scheduled castes/scheduled tribes) and other backward castes (OBC) reported higher prevalence of poor health than women from forward castes. Socio-economic inequalities were observed in health regardless of the indicators such as education, women’s employment status or land holdings. Even in a relatively egalitarian State in India, there are caste and socio-economic inequalities in women’s health.
Levesque, Haddad, Narayana and Fournier (2006) assessed the factors associated with utilization and sources of outpatient care in Kerala. A multi-level analysis of individual and urban characteristics associated with utilization and source of outpatient care was conducted. Findings revealed that there is a high level of utilization (83.6%) of allopathic services. Among all users, 77% reported that private care provider services were utilized. It was less likely for the very poor, while it was more likely for inhabitants of cities from both low public bed density districts and high private bed density districts. The study confirms high utilization of private outpatient care in Kerala and suggests problems of access for the poorest. Investing in the public primary care system and ensuring access to the health care for the poorest is therefore warranted.

In today’s world of globalization and privatization, a salient section of the society slips through all safety nets. In India, 40% of the rural population in ten states are below poverty line. The national health budget allocations are steadily decreasing; it is currently about 0.9% of the GDP. This is one of the lowest in the world. Other countries like Bangladesh and Sub-Saharan Africa spend about 3% of their GDP on health. Currently most of the money goes in to medical colleges (tertiary centers), very little trickles down to the primary and secondary levels. This has to be reversed and most of the money needs to be allocated to the primary and secondary health services which are used by the poor (Devadasan, 2006).
Mathew (2007) conducted a study on 630 individuals over the age of 45 years to assess the morbidity status. It was carried out in Idukki district of Kerala State. Over 93% of the sample population was suffering from some sort of morbidity. The overall prevalence of chronic morbidity was 66.8%. Life-style practices, diet, smoking etc were significantly associated with chronic morbidity. A vast majority (93.3%) sought medical advice from a qualified health care professional. More than 62% of the people felt that their present health affect their original level of functional capacity and thus affected their capacity to earn a living.

Giel et al (2007) assessed the frequency of mental disorders in 925 children attending primary health care facilities in Sudan, Philippines, India and Columbia. The rates of mental disorders ranged between 12% and 29% in the four study areas. The type of mental disorders diagnosed was similar to that encountered in industrialized countries. The study has shown that mental disorders are common among children attending primary health centres. The primary health care workers themselves recognized only 10% to 22% of the cases of mental disorders. The researchers recommended designing appropriate training courses in childhood mental disorders for primary health workers in the countries participating in the study.
Globally, cancer is one of the top leading causes of death. It is estimated that 7.4 million people died of cancer in 2004 and if the current trend continues; 8.5 million will die by 2015 (WHO, 2008). Breast cancer accounts for 19-34% of all cancer cases among women in India. Majority of cases of breast carcinoma reported in India are in the age group of 31 to 60 years with maximum number in 41 to 50 years (Mehrotra, Pandya, Senghla, Srivastav and Singh, 2008).

The rank of India on human development index scale, 128 out of a total of 194 countries, does not reveal a very healthy public health situation. In fact, the health profile of the country is a matter of serious concern. A number of policies are outlined for improving health of the people and programmes are being implemented; but achieving the goal of Health For All or Millennium Development Goals seems to be difficult in the near future. For best possible health care management, adequate resources in terms of quality and quantity are required. Resource allocation, distribution and efficient utilization are of vital importance in the best management of health care system. There is a general perception and to a great extent, it is a reality that the health work forces, particularly those in the public sector, are working at a very low efficiency level (Ingle, 2008).
The WHO report (2008) stated that substantial progress in health over recent decades has been deeply unequal. The nature of health problems is changing; ageing and the burden of chronic diseases are increasing alarmingly. The health sector remains under-resourced in many countries. The report structures the primary health care reforms in four areas; universal coverage reforms, service delivery reforms, public policy reforms and leadership reforms.

Public funds for health services in India have been focused largely on medical services, and public health services have been neglected. This is reflected in a virtual absence of modern public health regulations and of systematic planning and delivery of public health services. Various organizational issues also militate against the rational deployment of personnel and funds for disease control. There is strong capacity for dealing with outbreaks when they occur; but not to prevent them from occurring (Das Gupta, 2009).

Varma (2009) reported that the laboratory tests on water samples collected from cholera-prone regions of Kerala have failed the quality test, raising concerns over a resurgence of the water-borne epidemic. The outbreak of cholera has been largely confined to the Thiruvallam, Karumom and Nemom areas of Thiruvananthapuram district. While five of the eight water samples from Thiruvallam were found not satisfactory in terms of
bacteriological and chemical quality, the sample from the Nemom area had also failed the quality tests. The tests conducted by the public health laboratory had also recorded coliform content in water samples collected from the Kerala Water Authority (KWA) pump house as well as the main line, which supplies water to thickly populated residential pockets in Thiruvallam.

In the 1980s, Kerala recorded outstanding progress in many of the demographic health indicators, at par with the developed world. It was then believed that these achievements would naturally lead to a better health of Kerala society as had happened in developed countries. But the similarity ended there, the developed world had achieved such a transition only after undergoing an epidemiological transition. They had first ensured drastic improvements in sanitation, socioeconomic and living standards. They had eliminated or reduced almost all the common infectious diseases. This, however, did not happen in Kerala (Krishnakumar, 2009).

The ‘Kerala health model’, which was highly appreciated for low birth rate, reduced infant mortality rate and increased life expectancy is being criticized today. The State Government has ignored the public health problems and was not prepared to prevent and control the epidemic outbreaks. Occurrences of water-borne diseases, vector-borne diseases, and air-borne diseases are a great threat to the common man. Diseases like Dengue fever, Leptospirosis, Chickungunya and Swine flu are spreading alarmingly in
Kerala. Government laboratories are not well equipped to confirm the diseases. It is high time to analyse the public health problems, strengthen the infrastructure facilities, and provide adequate training to health workers in consultation with experts from the field of public health (John, 2009).

2.2 Primary health care in India and abroad

India is gearing up for Polio eradication by adopting special immunization drive such as Pulse Polio Immunization (PPI) since 1995, besides routine immunization. A study was conducted in three immunization centres of Delhi selected purposively. The study subjects comprised of 182 adult members who accompanied the children for pulse polio immunization. Out of the 182 respondents, majority (92.9%) of them knew that vaccine was given to children to prevent polio. On comparing the knowledge between males and females, it was observed that males were better aware about polio. The television seems to be an effective medium for communicating with people in urban areas (Singh, Bano, Dabas and Mehra, 2000).

Agarwal, Idris and Mohan (2001) evaluated the quality of reproductive health care services delivered at primary care level in Lucknow, and also assessed the physical facilities at primary health care units. A cross-sectional study was carried out in rural and urban primary care facilities covering a total 274 clients from nine primary health care units. The overall quality of antenatal, postnatal and family planning
services was poor at all centres, while natal services were very good. All rural as well as urban centres were equipped with necessary drugs, but were poor in physical facilities.

A study was carried out to examine the process of recording and reporting system of health information at the sub-centre level in Rohtak, India. A qualitative observational study was conducted on 35 female health workers working at the sub-centres. Findings revealed that workers are overburdened with 13 registers to generate information and to report to higher levels. Use of data was restricted for enumeration and registration of beneficiaries and reporting of services rendered to mothers and children. The information was seldom used for planning of work schedule, community need assessment or prioritization of clients. Supervisors never used the information as management tool to monitor and evaluate the services and develop health projects. The health information was never shared with community-organized groups (Lal, Vashist, Punia, Kumar, Jain, & Kumar, 2002).

WHO (2003) International Conference on primary health care, stated that Alma Ata had been a great platform in the widening of the health services. Primary health care was WHO’s main topic of the discussion. Greater efforts are being taken to make the HFA policy practical. Ever since the declaration of Alma Ata, there has been greater
organization in the health sector and Governments are taking up more responsibilities. Records show that there has been greater commitment in the policy’s of primary health care and its implementation. The equalization of health will not come without adequate financial contributions, and WHO decided to equalize the financial contributions. Greater involvement has been shown by the non-governmental organizations in the delivery of primary health care in recent years.

Madhav and Kiran (2004) conducted a comparative study of DOTS (Directly Observed Treatment Short course therapy) and Non-DOTS intervention in tuberculosis cure. The study was carried out on 306 patients of pulmonary tuberculosis attending the outpatient clinic of District T.B centre, Mangalore, India. The treatment administered to the patients in the DOTS group was directly observed by the primary workers and nurses. The patients in the Non-DOTS group were supplied with the same drug in the same doses on a fortnightly basis. The findings revealed that cure rate was 90.8% in DOTS group, whereas the cure rate in non-DOTS group was only 52.9%. The study confirms the effect of DOTS therapy against tuberculosis, which is implemented through primary health care workers.

Nair, Thankappan, Vasan and Sarma (2004) studied the utilization of sub-centre services in a random sample of 247 sub-centres from three districts of Kerala. Study findings revealed that about 30% of the
beneficiaries utilized services of the sub-centres during the reference period.

Maternal morbidity and mortality are high in Indian context, but the majority of maternal deaths could be avoided by prompt and effective access to intra-partum care. A prospective study was carried out in 388 women, followed through delivery and postpartum period in rural Karnataka, India. The level of unplanned institutional care seeking during the intra-partum period was very high, increasing from 11% of planning deliveries at a facility to an eventual 35% actually delivering in hospitals. Those women who experienced inadequate progression of labour pains were most likely to proceed unexpectedly to a hospital delivery (Mathew, Ramakrishna, Mahendra, Kilaru and Ganapathy, 2005).

Dieticians of Canada had endorsed the principles and framework for enhancing inter-disciplinary collaboration in primary health care initiative. The initiative focused on conditions required for health professionals to work together in the most effective and efficient way, so that they could produce the best health outcomes for individuals and their families. In the context of the initiative, the principles and values are shared by stakeholders. Principles are patient/client engagement, best possible care and services, access, trust, respect and effective communication. The elements of the framework are health human resources, funding, liability,
leadership, regulation, communication, planning and evaluation. Enhanced collaboration is the key to give Canadians better access to the right professionals, at the right time and in the right place. A more integrated collaborative approach to primary health care would result in better co-ordinated care for clients, and patients, as well as more effective, efficient work by health care providers (Sharp, 2006).

Gangadharan (2006) studied the extent of maternal and child health services utilization by the urban mothers of Kannur district, Kerala. The sample consists of 35 women from an urban area and 49 women from slum households. They were grouped under different socio economic status scale, based on education, occupation and income of the households. Study findings revealed that educational status of women influences the utilization of antenatal services. The family per capita income emerges as the vital variable on the choice of delivery place, government hospital or private hospital. It was also observed that 14.3 per cent of children in urban and 20.4 per cent of children from slum had not taken the full dose of immunization. The problem of underweight children is acute in slums, where 33.33 percent were underweight. Though Kerala is considered at par with advanced countries on several health indicators, the health status of mothers and children is still poor in urban areas of Kerala.
Balasubramaniam (2006) reported that only 42 percent of children in India are completely immunized. The point of first contact of health care delivery system is the multi-purpose health worker. Effective partnership with Anganwadi worker is very essential to bring improvements in this area, maintaining cold chain is another challenge. Despite advances in the field of solar power, provision of refrigerators to PHCs and sub-centres is still a dream. It has been clearly stated in the national health policy of India that by 2007, five percent of GDP should be spent on health and it should go up to seven percent by 2010. But only 15 percent of health expenditure is public spending and the rest 85 percent is for salaries and other expenses. Policy makers are often away from grassroot realities and people do not question policies. Data management in public health is very complex. The health worker is asked to collect and report volumes of data from the field, although a mechanism to verify the authenticity of such data is not clearly set. The data however ends up in a pile of reports without information flowing back to the workers in a manner that will help in decision making.

Report of the sub-group on rural health and Indian Systems of Medicine and Homeopathy (2007), analysed the achievements of primary health care in India. A very large part of the Hindi speaking areas of the country as well as the States of Orissa and Assam remain under shadows. Interestingly, even in the better off States like Kerala, Maharashtra, Punjab
etc. there are pockets where the health status of the people has remained stagnant over the years. The Malabar coast and high ranges of Kerala are examples of this situation. The current situation of almost 80% of the funds spent on salaries and the meagre balance available for medicines, equipment and other necessary supplies is rather deplorable. The report warns that if the situation is not improved urgently, the nation will end up with full of sick people, requiring extraordinary amount of resources to cure them from various ailments. The report recommended appointing Ayurvedic doctors also in primary health centres and mandatory rural service for all medical graduates before they would seek admission for post graduation. The sub-group also recommended the establishment of centres with adequate supply of medicines and enforcement of strict referral services to avoid over crowding of district hospitals and medical colleges.

Jajoo (2007) gave a brief account of the activities carried out in Kasturba hospital, Sevagram, India. A health insurance scheme has evolved where the community contributes for a health fund and participates in decision making and the supervision of village health workers. The village health workers provide symptomatic drug treatment, exercise a preventive role with the help of visiting health team members, and refer patients to hospital. The auxiliary nurse-midwife and social workers organize visits for vaccination and provide maternal and child health care. The doctor in charge treats patients in the hospital and trains village health
workers. More than 75% of the villages in the area have enrolled in the scheme over the last 10 years. No vaccine-preventable illness was reported in children or mothers after mass immunization was instituted. No maternal deaths have occurred during the past 10 years, and perinatal mortality has fallen steeply.

Rajalakshmi (2007) reported the salient points of the discussions of the second National Health Assembly (NHA), which was held in April 2007. Primary health care, rural and urban health care, violence on women and children were the highlights of the discussion. The first step towards this was a gradual transition from vertical health approach to a more horizontal approach under the United Progressive Alliance (UPA). NRHM was the centre of the discussion. It was felt that due to the increased privatization, the main functions like the strengthening of the PHC’s and sub-centres were affected. NRHM was being criticized for implementing the Indian Public Health system, which had severe limitations. The emphasis of the second NHA was mainly on the increased use of infrastructure rather than the increased quality of service. The urban health sector was also another point of the discussion. The lack of basic amenities and services were depressing. Apart from this, Accredited Social Health Activist (ASHA) plan which was based on the idea of one community health worker for every village was of serious concern as the working environment of these people were depressing. Another area of concern of
the second NHA was the private-public partnership in health care. This partnership worked out smoothly in some states like Tamil Nadu and West Bengal, but for others this was not the trend.

India’s achievements in the field of health have been less satisfactory and the burden of disease among the Indian population remains high. Many of the diseases and deaths can be prevented or treated cost effectively with primary health care services provided by the public system. An extensive primary health care infrastructure exists in India, but it is inadequate in terms of coverage of population, especially in rural areas, and grossly underutilized because of the dismal quality of the services. In most primary health centres, drugs and equipment are missing or in short supply and there is shortage of staff. As a result, most people in India including even the poor, choose expensive health care services provided by the private sector. India spends less than 1% of its GDP on public health, which is grossly inadequate (Bajpai and Goyal, 2008).

Das, Ghosh, Mandal and Ghosh (2008) conducted a house-to-house survey among 165 mothers who delivered during the six months immediately prior to the study in West Bengal, India. It was found that 83.6% deliveries were conducted at home and untrained persons attended 36.3%. Birth weight was not recorded in 38.8% of the cases. The health
system should urgently address the deficiencies in the management of home confinement and newborn care practices.

2.3 Role of village level health workers in the delivery of primary health care

Brooks and Phillips (1996) revealed the findings of a three-year research project using both quantitative and qualitative methods, which are aimed at understanding the role of women primary health care workers in the provision of primary health care services to women. The findings indicate that, for specific ‘women’s health issues’, the gender of the worker is clearly important for women. It highlights that women’s views should be understood in terms of a complex range of preferences and needs.

Singh and Yadav (2000) assessed the antenatal services received by the pregnant women in 90 districts of India by cluster survey method. It was found that 89% of pregnant women availed antenatal visits by the health workers, and 73% of them received Iron and Folic acid tablets. About 53% of women got full package of antenatal services. The proportion of pregnant women that availed full antenatal package was lower in rural areas compared to urban areas.

Balasubramanian, Oommen and Samuel (2000) conducted a retrospective study including 200 smear positive TB patients in Pathanamthitta district, Kerala. Health care workers were responsible for providing Directly Observed Treatment (DOT) to TB patients. Although all
patients were recorded as having received DOT, 26.5% actually did not receive it. Women were somewhat less likely than men (61% Vs 76%) to receive DOT. Non-receivers of DOT accounted for 86% of treatment failures or relapses.

Nair, Thankappan, Sarma and Vasan (2001) conducted a cross-sectional community based survey to evaluate the participation of multi-purpose health workers in implementing different national health programmes in Kerala. Three districts were selected for the study and 326 MPWs from 44 randomly selected primary health centres were included. Using cluster sampling technique 750 households were selected to compare the actual delivery of services at the doorstep. Study findings showed that MPWS consistently over-reported their performance when self-reported information was compared with that obtained from household surveys. Male MPWS concentrated on the National Malaria Eradication Programme and health education, while female workers focused on immunization and family welfare programmes. Key national health programmes (such as tuberculosis and acute respiratory infection) were neglected by all multi-purpose health workers. Multi-purpose health workers were aware of the health problems of elderly, but were not adequately trained to deliver any expected services in these areas.
Syamala (2004) assessed the knowledge, skill and performance of Multi-Purpose Health Worker (MPHW-female) working in tribal areas of Andhra Pradesh. The study also focused on the knowledge of Traditional Birth Attendants (TBAs) in providing maternal and child health services in tribal areas. Total sample consisted of 90 MPHWs and 45 TBAs working in various tribal areas. The study found that in general MPHWs were ill-equipped to provide MCH services. Even 50% of the MPHW could not perform accurately the basic skills like taking height and weight of pregnant women. The other skills like hemoglobin testing, urine testing were performed with gross error. Health workers overestimated their level of knowledge and skills and underestimated their need for training. The TBAs too were lagging behind in the correct knowledge and safe practices in conducting delivery.

Keller and Legetic (2004) surveyed the PHC staff members of three regions of Chile, South America using questionnaire to identify their training needs on nutrition and non-communicable disease prevention. The participants reported strong need for further training. An information booklet was prepared and the package was introduced through a series of workshops in all the regions of Chile.

Pal (2004) carried out a study to find out the actual work performance of health workers and the facilities available at selected 40
Sub Health Centres (SHCs) in Mandla district of Madhya Pradesh, India. The functions of health workers were studied under the different service components such as antenatal care, natal care, postnatal care, immunization, family planning and other national health care programmes. Study findings revealed that immunization services were good at 27 (67.5%) SHCs, antenatal services were good only at five (12.5%) centres, whereas intranatal, family planning and other services were poor at all the centres. Physical facilities were assessed in 40 centres using a checklist and found that only 10% of SHCs were found to have good physical facilities followed by satisfactory facilities in 42% of SHCs and poor at 48% of the selected centres.

Thousands of unemployed South Africans are working as volunteer Community Health Workers (CHWs) for no pay and no training. They play a key role in AIDS care particularly in remote areas. The study was carried out on 100 CHWs involved in the care of rural community. In-depth interviews and focus group discussions were conducted. Much of their work involves basic hygiene, such as going to the river and getting water to bathe a sick person and clean the house. Whilst they write reports for the local health department, they do not get any feedback. A senior doctor at the nearest hospital reported that CHW’s will have to play a key role in the distribution of anti-retroviral, but that can be done after getting adequate training on AIDS management. Their most important needs at present are
training and money to cover their expenses. If small salaries could be made available, this would be even better (Maimane, 2004).

Rath et al (2005) conducted a study in Kurda district of Orissa, India, to assess the peripheral health worker’s knowledge and practices related to filarial lymphedema care. Though the survey was conducted in an endemic area, none of the workers received any training on lymphedema care, except a half-day session on drug distribution before the yearly Mass Drug Administration (MDA). Approximately two-thirds of the respondents said that there were no facilities in their institution to take care of lymphedema patients. Only three of the ten PHC’s had facilities for blood testing. It was found that 17% of the respondents said that avoiding mosquitoes could prevent filariasis and 68% advised patients to wash their affected limb regularly. Massaging was advised by 50% of the health workers and bandage was advised by 68% of health workers, but health workers lacked in-depth knowledge on filariasis and care of lymphedema, which need to be strengthened to prevent disabilities.

A study was carried out by Damin, Baillie, Togni, Peter and Robinson (2006) to assess the effect of employing Aboriginal Health Workers (AHWs) on delivery of diabetes care in selected remote community health centres and to identify barriers related to AHWs involvement in diabetes and other chronic illness care. Results revealed
that there was a positive relationship between the number of AHWs per 1000 residents and delivery of diabetes service. Presence of male AHWs was associated with higher adherence to the guidelines. Barriers of AHW’s involvement in chronic illness care included inadequate training, lack of stable relationship with non-Aboriginal staff and high demands for acute care. The findings confirm that employing AHW is independently associated with improved diabetes care in remote communities.

World Rural Health Conference (2007) addressed the problems faced by the village level health workers. The hours of travel, often under adverse conditions affect the delivery of services. The village level health workers are exposed to community politics and it is at this juncture that their gender, age, marital status, social usage, caste and political affiliations are crucial. The female health workers who speak openly about sexual and reproductive health, contraceptives, interact with men and women. They are viewed as women with loose character and become easy prey to wide range of harassment. The male multipurpose health worker is getting marginalized and once the post falls vacant, is rarely filled and it again put more burden on the female health workers. Inadequate support systems at the sub centre and its isolated location are factors contributing to poor health services at grass root level. The report recommended well-constructed sub-centre buildings with adequate infrastructure, essential equipment and supplies and secure living quarters for the female health
workers. Providing two wheelers can increase the mobility of the village level workers, and they should be given economic benefits/incentives for added workload.

India has the largest number of births per year (27 million) in the world with high maternal mortality rate of about 300 to 500 per 100,000 births. This is about 20% of the global burden. Hence India’s progress in reducing maternal death is crucial to the global achievement of Millennium Development Goal-five (MDG-5). As more than 60% of births are domiciliary deliveries, India needs to come up with qualified birth attendants at community levels. Lack of qualified midwives is a major human resource constraint for providing locally accessible skilled delivery care for rural women. Any country with a political commitment to reduce maternal mortality has to concentrate on well-trained system for midwives. Conversely, India ignored development of a midwifery cadre, which has led to persistent dependence on traditional birth attendants (Mavalankar, Vora, and Prakasamma, 2008).

2.4 Summary

The investigator made an extensive search of the literature related to the topic and is organized under public health problems in India and abroad, primary health care in India and abroad and role of village level health workers in the delivery of primary health care. The related literature reveals that the primary health care provided at the village level is highly
inadequate in terms of quantity and quality. Though many studies have been conducted to identify the public health problems, very few studies have been carried out to explore the problems and issues in the delivery of primary health care especially in Kerala setting. The studies and literature surveyed have helped the investigator throughout the research work, especially in the design of the study and the preparation of the tool. A detailed description of the research methodology is given in the following chapter.