CHAPTER II

EPIDEMIOLOGICAL TRANSITION AND
HEALTH POLICIES IN KERALA

2.1 Introduction

Achieving high human development with low per capita income and less nutrient intake, Kerala attracted the attention of many researchers since the beginning of 1970s. Such human development is mirrored in its low level of infant, child and maternal mortality rates, better increment in human longevity and high literacy rates which is often compared with that of many developed countries (CDS/UN, 1975; Panikar and Soman, 1984; Parayil, 2000). Remarkably, this experience of Kerala becomes unique as it stands at odds with most of the developmental theories which strongly relies on essential pre-requisites of economic and nutritional improvements for achieving low mortality rates and higher life expectancy. However, peculiarity of Kerala, reflected on good indices in health and educational attainments with low per capita income, has led to the formation of a different path of development where these educational and health achievements have become a stimulus factor behind the higher economic growth and increased per capita income of the state. This tendency began to be visible at the end of 1980s (Kannan, 2007). Later, such distinctiveness is widely used as a phrase, ‘Kerala Model of Development’ in the academic circles across the world.

Various studies showed that the achievement of health and education in Kerala is a composite effect of several socio-cultural and political factors comprising of social reform movements, national movements, communist movements and vibrant civil society by underpinning this phenomenal achievement (Thomas and Rajesh, 2011). Apart from directly improving health status of people by better awareness and healthcare behaviors, such factors contributed to a demand for a responsible state intervention in Kerala at least since the beginning of 20th century. While admitting the role of these socio-cultural and political factors, several studies further attributes the credit of these achievements to various governments for their intervention through policies and acts (Caldwell, 1986). These state initiations, spread out over a centurial period of time, comprised of direct healthcare provisions and awareness programmes
apart from the initiations in non-health sectors such as education, nutrition, water and sanitation programmes which also act as a catalyst for the improvement in health status. However, by and large, the available literature on state initiation only lists the changes in the health and non-health sectors with respect to the health status in Kerala. But they fall short of identifying the focus of the Government, the context in which the policy was formed and the appropriateness of the policies across the history.

Empirical evidence from various countries shows that state intervention has a crucial role to play in their epidemiological transition as mentioned in the previous chapter. Since the early stages\(^3\) of epidemiological transition is characterised by a predominance of morbidity and death due to pestilence, famine, communicable diseases and reproductive health problems, the appropriate concern of the state is to provide primary healthcare such as awareness, vaccination, better maternal and child healthcare as well as to ensure sufficient nutrient intake (Omran, 1971). However, the state needs to address the additional challenges from non-communicable diseases and man-made diseases\(^4\) emanating from the ongoing epidemiological transition in its advanced stages with promotional healthcare initiatives or through the provision of better curative care as done in many developed countries of West and North Europe or in USA (Olshansky and Ault, 1986). Even though the health status of Kerala is often compared with that of many developed countries, comprehensive evidence on the response of the state to the stages of epidemiological transition is scarce in Kerala.

Since Independence of India, the health became a responsible matter for both central and state governments as per the constitution of the country. Largely, the focus of health intervention in the country as a whole is designed by the Central government of India (hereafter GOI) through its national policies and through the Five Year Plans (FYPs). However, the state governments are allowed to take additional

\(^3\)By the term early stage, the study alludes to the first two stages of epidemiological transition viz; (i) the age of pestilence and famine and (ii) the age of receding pandemics, as proposed by Omran, 1971. High level of mortality caused by famine, and other primary healthcare oriented diseases along with low social and economic development status of the society etc. are some of the notable features in this stage.

\(^4\)Man-made diseases largely comprises of ailments that are caused by irresponsible behavior of people towards their health. In the broad sense, such behaviors include physical inactivity, pernicious dietary practices and excessive drinking and cigarette smoking, apart from violence, homicides and suicides etc (Rogers and Hackenberg, 1987).
responsibilities as per the necessities of their health sector. Nevertheless, even after six decades of Indian independence, the disparities among the states are clearly visible. Various government documents show that leading states like Kerala experience a shift in the pattern of dominant diseases from communicable/primary healthcare-oriented diseases to non-communicable/degenerative diseases and also ‘ageing’ of the population (RGI-CRS and Census: Various Years). Therefore, these states require comprehensive policies to address the new challenges. One needs to ask whether the policies of GOI really address the needs of Kerala and, how the policies of the state government (hereafter GOK) itself address these new challenges.

Considering the above research gaps, this chapter explores the following questions; (i) What are the major policies that might have impacted the health sector in Kerala? (ii) How do these health policies vary across the major periods in Kerala’s development (ii) How do the policies of GOI and GOK address the requirements emanating from the epidemiological transition in the state?

2.2 Research Methodology and Data

There are several factors that can be identified as the contributors to the epidemiological transition, which largely include the nature of socio-cultural, economic and political components. Besides them, the state policies can directly influence the transition or might act as a catalyst through the above components, which in turn can impact the epidemiological transition. Notably, the theoretical understanding of epidemiological transition underlines the importance of shift in the policies in order to address the changing pattern of causes of death and morbidity and age structure of the population. In this regard, the policies of the state need to focus the challenges from non-communicable diseases, accidents and injuries and the health concerns of elderly etc. in the advanced stages of epidemiological transition which is different from the primary healthcare-oriented policies of its initial stages. Therefore, the state has a big role to play by maintaining the achievement of keeping the communicable/primary healthcare-oriented diseases at bay along with addressing the new challenges of the advanced stages as depicted in Figure 2.1.

---

5 As per the definition of WHO, ageing represents the faster growth in the share of 60+ population than that of any other age groups as a result of lowering fertility rates and expanding life expectancy in a society.
Figure 2.1 mirrors a detailed analytical frame on epidemiological transition and contributory factors by considering the theoretical understanding by broadly grouping them into two; viz. Direct and Indirect contributors. The Direct components comprise of all the direct initiative by the state in the health sector while the indirect component is broadly defined as socio-cultural, economic and political factors, including education, housing, nutrition, land reforms, women empowerment, water and sanitation, family welfare etc, which can also be changed by the state policies and can contribute to epidemiological transition. It is clear from the Figure 2.1 that there is a necessity of policy shift from addressing only primary healthcare-oriented intervention to an additional promotional and curative healthcare in order to address the causes of deaths and morbidity emanating from the epidemiological transition. Considering such theoretical understanding, the chapter qualitatively explores the major policies by analysing its context, relevance and impact of the epidemiological scenarios in the history of Kerala.
Figure 2.1: Conceptual Frame for Stages of Epidemiological Transition and State’s Healthcare Approaches

Source: Author’s Estimation from Related Literature Review
Any attempt to explore the role of state intervention on health sector in Kerala has to consider the role of government at its various levels. These comprise of GOI, GOK and Local Self Governments (LSGs). Constitutionally, Indian federal system delegates responsibility and decision-making power on healthcare to the state governments by adding the health sector into ‘State List’. However, GOI’s control over preventive programmes such as Disease Control Programmes and Family Planning together account for about two-thirds to three-fourth of state health budgets (Duggal, 2001). But curative care, including hospital and dispensaries, do not come into the purview of the GOI and most of the investments in this area are done by the state governments. The 73rd and 74th amendments of Indian Constitution in 1994 gave commendable power to LSGs in intervening in the health sector. Notably, GOK has implemented the LSGs system as part of Panchayat Raj Act in 1996 with the commencement of Peoples Planning Programme (PPP) where large amount of responsibilities and powers related to the health sector has been transferred to the LSGs (Thomas, Rajesh 2011). Taking this into account, the study analyses the involvement of GOI, GOK and LSGs through their health policies.

The subsequent sections explore the policies and Acts that have a bearing on the health situation in pre and post state formation era in Kerala. Before the independence of India in 1947, Kerala was under four administrative territories, namely South Canara (North End) Malabar (North Part), Kochi (Central) and Travancore (South) (See Figure 2.2). The Malabar region was under Madras British Presidency up to 1947 which later came under Madras Provincial State after Independence. South Canara, however, was part of the state of Mysore. Kochi and Travancore were princely states that became the State of Travancore-Kochi after Independence. ‘Kerala’ was formed in 1956 on the basis of vernacular language by merging Malabar, Kasargode Taluk of South Canara and most parts of the State of Travancore-Kochi. Considering this particularity in the administration, this chapter considers the policies and Acts by the Government of British India Provinces, specifically the Madras Presidency, the policies of princely states of Travancore and Cochin, the state of Travancore-Kochi and the state of Kerala for the analysis.

A major characteristic of health intervention in Kerala is its different pace of actions especially in the post-state formation period, showing high variations in the
focus and nature of state involvement. Therefore, it is necessary to use time-periods in the analysis which can shed more light on this historical exploration. Considering this, the study divides the entire analytical periods into five categories; (i) Pre-state formation (Before 1956), (ii) Era of state healthcare expansion (1956-1970), (iii) Consolidation period of state intervention (1970-1985), ( iv) Moment of outpacing private healthcare (1985-2000) and (v) Re-enforcing state healthcare (since 2000). The study uses data and other information from various official documents of Travancore and Cochin princely states, Madras Presidency of British India and State of Travancore-Cochin for the period of pre-state formation. It uses various acts, policies and other documents of GOI, GOK and LSGs for the analysis of post-state formation periods. Besides, various available literatures on Kerala are also used for a comprehensive analysis.
Figure 2.2: History of Administrative Regimes for Kerala

Administrative History

Until 1947
(i) South Canara (District, Madras Presidency of British India)
(ii) Malabar (District, Madras Presidency of British India)
(iii) Cochin (Princely State)
(iv) Travancore (Princely State)

Between 1947 and 1956
(i) South Canara + Malabar (Madras State, India)
(ii) Travancore + Cochin (Travancore-Cochin State, India)

After 1956 - Kerala

Source: Franke and Chasin, 1982
2.3. Kerala Model: Some Anecdotes

Any exploration on state policies in Kerala needs to consider the uniqueness of its development pattern. On the one hand, it reflects the characteristics of a developing country such as low per capita income and less nutrient intakes. On the other, it has a set of ‘quality-of-life indicators’ such as low mortality rates especially for infants and mothers, high life expectancy and literacy rates than to the rest of India and even better than many growing economies. Notably, such experience of Kerala charting a new path of development where improvement in income and nutrient intake are considered as the prominent factors for better ‘quality-of-life’ in which Kerala development stands as a paradox.

According to Amartya Sen, “the average levels of literacy, life expectancy, infant mortality, etc., in India are enormously adverse compared with China, and yet in all these respects Kerala does significantly better than China”. Therefore, he continues, “India does not need to look elsewhere for development pointers; yet there is much that India can learn from Kerala’s development experience” (Dreze and Sen, 1997). While emphasizing Kerala’s achievements, Govindan Parayil points out that “in the annals of development theory, such a model is counter-intuitive and contrary to the nostrum preached by the IMF/World Bank and other international development agencies that a state’s social development and material conditions of living can improve only after it has achieved economic growth”. (Parayil, 2000, Page 3)

The achievement of Kerala in ‘quality-of-life indicators’ is not a result of any single factor of development. By and large, it is an end result of an interaction between public actions through peoples’ mobilisation, triggered by the socio-political mechanism and consequent government intervention that happened throughout the history of the state (Dreze and Sen, 1993, Ramachandran, 1998, Ramakumar, 2006). Dreze and Sen refer it to as “a dialectical process of state intervention on the one hand and the demands and actions of mobilized groups and public bodies on the other, resulting in a system of ‘support-led security’ as distinguished from ‘growth-led security’. State action through public provisioning and public support measures is crucial; nevertheless, public action is ‘something involving a great deal more than activities of the state” (Dreze and Sen, 1993, in Tharamangalam, 2006, Page 6). Notably, the role of state intervention was decisive in achieving better social
indicators. Such an active role of state is evident from its direct intervention in healthcare expansion, massive awareness programmes, provision of nutrients, water and sanitation as well as provision of universal education, public distribution system, housing, land reforms etc. that might also indirectly contributed to the health status (Panikar and Soman, 1984; Panikar, 1999; Kutty, 2006a,b). In the following section, this chapter explores the interaction between state and public actions in detail, while focusing on the intervention of state in health sector.

2.4. Understanding Epidemiological Transition with State intervention

2.4.1 Pre-state Formation (Before 1956)

Way back in early 20th century, Kerala was grappling with shocking death rates due to famine and epidemics such as plague, cholera, small pox and other contagious diseases which broke out unexpectedly and took a heavy toll on human lives (Kooiman, 1991). On an average, the infant mortality rate was 242 per 1000 births and expected years of life at birth was a meager 25 years (Namboodiri, 1968). The prevalence of insanitary conditions, inadequate nutritional intake especially for infants and children, lack of maternal healthcare and insufficient medical and preventive health programmes/facilities were largely responsible for such a health scenario (Singh, 1944; Panikar, 1999). The healthcare of Kerala (and of India) was a matter of philanthropic intervention by the rulers of their territory (Jaggi, 1980; Duggal, 2001). Even though these institutions were, in principle, accessible to all, often the caste, class and occupation of the people and their geographical location limited its access in reality.

The health status of Kerala was, however somewhat better than in previous century and even slightly better than its all-India average in the early 20th century. This was a result of state intervention by the princely states and British colonial government and various civil society movements. Remarkably, there was a significant presence of Christian missionaries with their education and health mission especially in Travancore region since the end of 18th century, which supported the state in order to address the deadly famine, plague, small pox and other contagious diseases (Kooiman, 1991). Notably, these missionary social services were indirectly backed by the state. As noted by Singh: “The Hindu state not only followed a ‘semi official policy of religious tolerance’ (Kawashima, 1998, p.27), allowing the Christian
missionaries to set up shop in the first place but also provided the financial support in terms of grant of money and land, which was essential for the missionaries (Singh 2010, P. 270)”.

Since the early 19th century, the role of the state in health was more visible in Kerala as shown in Figure 2.3. Royal Commission (1859) was the first committee of state which comprehensively inquired into the epidemiological scenario of British India which also included the Malabar areas. According to the Commission, the high death rates were mostly caused by communicable diseases like Fevers, Typhoid, Cholera, Dysentery and Smallpox, largely resulting from unhygienic surroundings and therefore suggested large scale public prevention efforts. This led to preventive care at least in the cantonment areas resulting in the mortality decline among the armed forces. Even though the British started the allopathic medical institution in India since the early 19th century, a large expansion of allopathic institutions happened only after 1880, with the devolution of imperial government by setting-up separate Municipalities and District Boards especially after 1880 (HSDC, 1946). However, key interest of the British in establishing the hospitals was to serve their administrative staff and armed forces. In this regards, their medical system was highly biased with urban centric and racial sentiments (Jeffery, 1988; Duggal, 2001). Moreover, there was no special planning or preventive measures to deal with existing epidemiological scenario which caused high mortality rates mainly among common people due to the diseases emanating from insanitary conditions. Notably, the year 1886 claimed 368,000 lives in Madras presidency alone which included Malabar region of Kerala too (Duggal, 2001).
Figure 2.3: State Policies Related with Health in Kerala (Before State Formation – 1956)

MALABAR

Royal commission – 1859: Preventive care

Medical Expansion with Local Boards -1880

Madras Public Health Act – 1935

Bhore Committee – 1946

Sokhey Committee – 1948

Five Year Plan 1 (1951-56):

- Water & sanitation
- Maternal & Child Health
- CDP – Rural Medical Infrastructure
- Mass Campaign-Malaria, Smallpox, Tuberculosis, Leprosy
- Education & Training
- Self sufficiency in Drug & Equipment
- Administration Improvement
- Preventive Care
- 3-tier Healthcare System
- Infrastructure & Manpower Expansion
- Maternal & Child health
- Control Epidemics
- Assignment of Power and responsibility

TRAVANCORE & COCHIN

Universal Education Proclamation - 1817

Small Pox vaccination – 1879

Vigilance against Plague, Cholera, Small Pox

Caste abolishment in Schools - 1908

Medical Entomologist & Laboratory - 1921 & MCH work -1929

Major programmes -

Rockefeller Foundation -1928

Massive Hookworm Campaign

Destruction of Plodia

Travancore-Cochin Public Health Act -1955

Health Programmes -

Health Programmes -

Town Improvement Committees – Sanitation

Malaria Eradication Programme

Massive Hookworm Campaign

School Feeding

Nutritional Programmes

Anti-malarial Programme

Control Epidemics

Power & responsibility assignment

Administration Improvement

Infant & child health

Compulsory allocation for local public health

Source: Author’s compilation from various literature surveys
2.4.1.1 Healthcare in Princely States

Unlike in Malabar region, intervention in Travancore and Cochin princely states was more interlinked with educational and other social factors in 19th century. As shown in Figure 2.3, Travancore made an official proclamation for ‘Universal Education’ in its territories in the year 1817, which paved the way for public health awareness beyond mere literacy. The establishment of allopathic dispensaries and hospitals, instruction on hygiene and public health by the Christian missionaries and exposure to western education in the mid 19th century also intensified the public health awareness (Ramachandran, 1998). Notably, the Maharaja of Travancore acknowledged the responsibility of state for the provision of medical assistance to the citizens in 1865 (Singh, 2011). There was an expenditure of Rs 0.46 lakh consisting 1.09 per cent of total government expenditure between 1863-68 for medical and public health in Travancore that increased to 2 per cent in the end of that century (Panikar and Soman, 1984). Besides, Travancore government proclaimed a compulsory vaccination programme against small pox for all public servants and others who were vulnerable to the disease. Also, the state became vigilant against cholera, plague etc mainly by improving sanitation and other facilities in the sites of fairs and festivals (ibid). Apart from this, it established a special department for sanitary arrangements in 1894 (Aiya, 1906).

The rise of ‘Malayali sub nationalism’ and consequent submission of ‘Malayali Memorial’ having native representation in the administration to address the public grievances forced Travancore government in 1891 to act for the welfare of the people with social consensus. Singh noted that, “the growth of Malayali sub nationalism fostered the recognition of a ‘concept of equal rights for all’. There developed an emergent societal consensus, espoused equally by members of lower as well as upper castes, on the need for the extension of educational and health facilities to all Malayalis, irrespective of their religion, class or caste”. (Singh, 2011, Page 284). Such demands resulted in a general improvement in education and health sectors in Travancore. Remarkably, Travancore government made vaccination compulsory in 1921 and facilitated affordable protection against small pox to all by the end of 1930s. Town Improvement Committees and Rural Conservancy Establishments were set-up in Travancore for Sanitary supervision (Franke and Chasin, 1992; Panikar and Soman,
The government also appointed a medical entomologist to study the diseases peculiar to Travancore in 1921 and to suggest measures to control them. Consequently, a laboratory was established in the same year to produce vaccines against typhoid, smallpox and cholera (Kabeer, 2003). Notably, there were 30 hospital and 38 dispensaries and 18 other grant-in-aid institutions functioning in Travancore apart from mission hospitals in 1928.

Another relevant intervention of the Travancore government is its invitation to Rockefeller Foundation\(^6\) for scientifically studying the causes of deaths in Travancore and to suggest remedial measures in 1928. In collaboration with them, various programmes such as hookworm survey, entomological works, spreading awareness about public health and establishment of modern healthcare facilities for maternal and child health have taken place during the 1930s in Travancore. Later, the government also intensified anti-malaria programmes and various nutrition programmes especially school feeding programme in 1940s as part of their intervention (Kabeer, 2003; Panikar and Soman, 1984). Apart from such direct healthcare actions, programmes such as education for all children (1904), abolition of caste restriction in schools (1908), and a bunch of affirmative action to uplift the lower castes especially by fees concession and scholarships in 1920s and 1930s could have indirectly contributed beyond education and healthcare. A study confirms that such intervention in policies and priorities in health and other related areas are more or less similar in princely state of Kochi as in the Travancore (Panikar and Soman, 1984).

2.4.1.2 Madras Public Health Act - 1939

While comparing the health status among various regions, Travancore and Kochi were ahead while Malabar region lagged behind in the early 20\(^{th}\) century. The expected year for a man at his birth was 29.5 years in Travancore, while it was lesser in Malabar region in 1930. The death rate of infants and illiteracy was significantly higher in Malabar than among princely states in those years (Singh, 2011). Perhaps, such low attainment in Malabar may be the result of less radical changes in the civil

---

\(^6\) Rockefeller foundation is a philanthropic organisation which was established as Rockefeller Sanitary Commission in 1909 against hookworm diseases and malaria in USA. However, it expanded its activities beyond the geographical boundaries mainly to Latin America and Asian countries after 1913, partially because of their trade interest (Kabeer, 2003)
society and state intervention in healthcare when the region was under the British colonial rule. Even though the British introduced allopathic system in Malabar to improve the health status, such attempts failed because of social realities that prevented attracting the local people at large scale (Sadanandan, 2001). There was neither a preventive strategy against the spread of communicable diseases nor clarity of responsibilities in the medical administration in Malabar until the end of 1930s. Later, Madras provincial government of British India enacted a new Act called Madras Public Health Act, 1939 (MPHA-1939) that was also applicable for Malabar, which clarified the responsibility of controlling authorities and their assigned power in each administrative level in the health sector.

The MPHA-1939 redefined the infectious diseases that included acute influential pneumonia, cerebrospinal fever, chickenpox, cholera, diphtheria, enteric fever, leprosy, measles, plague, rabies, relapsing fever, scarlet fever, smallpox, tuberculosis, typhus etc. apart from the diseases declared by the government as infectious. At the intervention level, it focused to control contagious/epidemic diseases that broke out mainly due to unhygienic surrounding by preventive measures. It includes the prevention at healthcare institution-level such as provision of isolation hospitals and wards, shifting of infected people to hospitals and ensuring the treatment for infectious and venereal diseases by local authorities. Similarly, community level measures that consists of preventing the usage of water from suspected sources, sanitary arrangement for fairs and festivals, prohibition of sale of unsafe food and efforts to quarantine the infected. Besides, it aimed to destroy the incubating hubs of epidemics that includes destruction of hut or sheds that was suspected of spreading infections, destruction of rodents, mosquito control etc and strictly maintain proper water and drainage system. The medical practitioners, managers of factories and lodges, every head of the family as well as every owner or occupier of the houses and every keeper of lodging houses were charged with the responsibility to report existence of any notified disease. The Act ensured that the local authority had to provide additional staff, medicines, appliances, equipment and other things in the event of a break-out of any infectious disease in its area. The magistrate of the area was vested with the power to provide vaccination and preventive inoculations.
Though the MPHA-1939 addressed the epidemiological requirements specifically to control the epidemic/infectious diseases, it was largely insufficient to provide a comprehensive framework for state health intervention. There was no sufficient provision for maternal and child healthcare and nutritional support to the population where scores of people were dying due to such causes. Similarly, it never made any preventive strategy or curative support against non-communicable diseases such as cancer and senility. The Act did not contain any specific programmes against the regional disparities especially for rural-urban difference in the healthcare facilities. Nevertheless, it stands as a primary attempt by the state to bring healthcare in administrative and legal framework rather than remaining as philanthropically-oriented services.

2.4.1.3 Travancore-Cochin Public Health Act – 1955

The MPHA-1939 was applicable only for the Malabar regions of Kerala, whereas population living in Travancore and Cochin princely states was out of its coverage, even though their state medical expenditure had increased considerably. Demand for a comprehensive public health act to ensure better healthcare was rising from several corners in 1940s. At macro level by considering India as a whole, two committees namely; Bhore Committee (1946) and Sokhey Committee (1948) suggested healthcare reforms in order to address the heavy death toll from epidemic/contagious diseases and maternal and childcare related causes that emanated from unhygienic surroundings, poor nutritional intake and lack of medical facilities in the country.

As recorded in Figure 2.3, Bhore Committee report was comprehensive by providing a framework for organising the health sector with preventive and curative services that cut across rural and urban areas. It gave special consideration for the health of mothers, children and those with intellectual disability. It cautioned about the grave need for sanitation and other preventive measures and necessity of healthy habitation areas to eradicate the contagious diseases. It recommended an organised 3-tier system\(^7\) in order to reduce the rural and urban disparity in the healthcare (HSDC, 7Under the 3-tier healthcare system, the primary units are the first tier, the smallest units which will be brought under the control of secondary units that are considered as second tier. The top tier was district hospitals that give specialized types of curative services along with administering the health institutions in the districts
While covering its major recommendations, Sukhoi Committee suggested that preservation and maintenance of health of the citizen is the responsibility of the state and therefore healthcare organisation had to be under the state control, which functions as free public service. It suggested for least one medical professional for 3000 people and a bed for every 1500 people should be ensured within ten years. Similarly, it also envisioned that India should be self-sufficient in producing and supplying medicines, biological products and other medical necessities (NPC, 1948). Notably, Figure 2.3 indicates that most of their recommendations such as controlling infectious diseases, provision of better healthcare especially for maternal and child care as well as rural healthcare, water and sanitation and self-sufficient medical production etc. were suggested to the states for implementation by GOI in its FYP-1 (GOI, 1951).

After Independence, Travancore and Cochin princely states merged as state of ‘Travancore-Cochin’ while Malabar remained as part of Madras in Indian government. To resolve the growing demand for a health policy, the Travancore-Cochin state enacted the Travancore-Cochin Public Health Act (TCPHA, 1955) in the year 1955. The Act contained most of the rules, regulation and recommendation of MPHA-1939 (See Figure 2.3). As in MPHA-1939, the major focus was given to bring an administrative order in the healthcare sector by stipulating the powers and responsibilities of the officials. It also gave priority to preventive care against infectious diseases. Several preventive measures were recommended like proper maintenance of water and drainage system and sanitary convenience under the responsibility of local authority. The Act provided for stringent measures to prevent break out of epidemics through social functions like fairs and festivals making it mandatory for the health officer to supervise the sanitary arrangements in the sites.

A notable feature of TCPHA-1955 was that it gave more attention to MCH services. According to the Act, the local authority had to ensure the measures pertaining to maternity and child welfare. Similarly, it ensured the medical inspection and treatment of all the school children and prescribed this as a duty of the local governments. A Public Health Board was proposed for facilitating the healthcare and advice the government regarding public health administration. Moreover, the act ensured that every Municipality and Panchayats has to earmark a considerable part of
its income, other than the grants made by the governments, to the local public health including relief. Notably, TCPHA-1955 tried to contain the essence of FYP-1 suggested by GOI as recommended by Bhole 1946 and Sukhey 1948. Nevertheless, most of its contents already existed since the Travancore and Cochin princely states, though they were not in the shape of a legal or administrative framework.

The exploration of state policies on epidemiological transition in Kerala, before its formation (1956), indicates that Kerala has a long history of state intervention to control the epidemics, provision of better healthcare and nutrition etc, which often intertwined with public action triggered by civil consciousness. Kerala could effectively control outbreak of communicable diseases such as smallpox, cholera and malaria etc. before its onset. Notably, the crude death rate (CDR) in Kerala was 16.9 and life expectancy (LE) was 46.2 years for males and 50 years for females in 1951-60, where CDR was 22.8 and LE 41.9 years and 40.6 years for both males and females respectively for all India in the same period (GOK, 1974, CDS/UN, 1975). The state of Kerala was formed by merging Malabar and Travancore-Cochin in 1956. In the following sections, this chapter explores the state of health policies and intervention in Kerala after its formation.

2.4.2 Expansion of State Intervention in Healthcare (1956-1970)

Though overall LE in Kerala was higher than that of India, there was a severe scarcity of medical care facilities in the state in terms of infrastructure and the manpower (GOK, 1961; GOK, 1962). The average number of available doctors per unit population in Kerala was lower than that of all India averages which mainly attributed to lack of medical education and the preponderance of general education (GOK, 1961). Besides, wide disparities in healthcare infrastructure among the regions existed in the state in 1951-60. In this context, Travancore - Cochin area was far better off than that Malabar region in LE and CDR. Notably, CDR among the Travancore was only 12 while it was 23 in Malabar in the same period (CDS/UN, 1975). According to the studies, the lag in health status of Malabar can be due to the scarcity of healthcare facilities, as the number of beds in Malabar was 2.4 times lower that of Travancore-Cochin (CDS/UN, 1975; Krishnan, 1976; Caldwell, 1986). Besides, there was significant persistence of healthcare disparities between lowland,
midland and highland in which highland was saddled with poor health infrastructure (Krishnan, 1976).

There were many demands to resolve disparities in social sector specifically in healthcare from various social and political organisations, especially from ‘United Kerala Movement’\(^8\) in 1950s. As noted by Singh “With the establishment of democratic institutions in the state in the 1950s, there emerged a pattern of very tightly contested electoral races between the Communists and Congress party. Close political competition both bolstered Malayali sub nationalism and reinforced its causal impact on social development by making governments more responsive to public opinion (Singh, 2010, P. 286)”.

### 2.4.2.1 Agenda of First State Ministry (GOK) and GOI

The first government of Kerala was formed in the year 1957. In fact, it was the first communist government among the states in India which came to power through democratic election. A fundamental agenda of the GOK was to bring all the key sectors of development under its control to improve development indicators. The government adopted a comprehensive plan of development by giving importance to the basic needs ensuring better health, education, water and sanitary facilities, food and nutrition as well as housing etc. Notably, the government started giving importance to the provision of healthcare (medical institutions, beds and medical personnel) in the neglected areas including Malabar region (Krishnan, 1985).

A notable point in these periods is the contribution of GOI which focused on primary healthcare through state machineries that is evident from its various FYPs. As recorded in Figure 2.4, FYP 2, FYP 3 and FYP 4, the major focus was given to control communicable diseases, expansion of healthcare infrastructure, medical education and training facilities, provision for water and sanitation, nutrition and school health programmes etc. which were supposed to improve the health status of its citizen (GOI, 1956, GOI, 1961 and GOI, 1969). Remarkably, the earlier report of Bhore Committee (1946) which insisted on the expansion of primary healthcare and the later Mudaliar Committee (1961) which shed light on the vicious circle of poor

---

\(^8\)United Kerala Movement is a socio-political campaign for a ‘United Kerala State’ on the basis of a vernacular language, Malayalam. It had gathered considerable momentum after the Indian independence and caused Kerala state formation.
health status and inadequate healthcare infrastructure and which suggested GOI to equip the district hospitals with mobile clinics on an urgent basis rather than expanding the PHC services, also might have contributed to such actions (Mudaliar, 1961; HSDC, 1946). Apart from these, the GOI gave priority to Family Welfare (FW) services such as facilitating the family planning measures and MCH services. It was reflected in GOI’s programmes as well as in two committees - Chadha Committee (1963) which reported an integration of FW with health services and Mukherji Committee (1966) which insisted on the separation of both for more efficiency (Chadda, 1963; Mukherji, 1966).
Figure 2.4 State Policies Related with Health in Kerala (Era of State Healthcare Expansion – 1956 to 1970)

GOVERNMENT OF INDIA

- Five Year Plan 2 (1956-61)
  - Communicable diseases control
  - Medical Education & Training
  - Up-gradation of District Hospitals
  - Mobile Clinics
- Mudaliar Committee – 1961
- Five Year Plan 3 (1961-66)
  - Communicable diseases control
  - Water & Sanitation
  - Rural medical infrastructure
  - School Health Programme
- Applied Nutrition Program
- Chadda Committee - 1963
  - Integration of Health & FW services
  - Separation of Health & FW services
  - Health Insurance
  - User Fee/ Levy
- Mukherji Committee - 1966
- Jain Committee
- Five Year Plan 4 (1969-74)
  - Speedy medical infrastructure
  - Medical staffs, Medicines

GOVERNMENT OF KERALA

- Five Year Plan 2 (1956-61)
  - Medical Infrastructure expansion
  - Mass Health Programme
  - Maternal & Child Health
- Five Year Plan 3 (1961-66)
  - New Medical College
  - School Feeding Programme with CARE
  - Increased medical students
  - Environmental Hygiene
  - Communicable diseases control
  - Medical staffs
  - Drugs & equipments
  - Fair Shops
  - Control TB, Leprosy, Smallpox, Cholera, Diphtheria
  - Malaria eradication
  - Training for healthcare personnel
  - Family Planning
  - Communicable diseases control
  - Improve medical institution
- Five Year Plan 4 (1969-74)
  - Student Health Programme
  - Sanction of private medical practices

Source: Author’s Calculation from various literature surveys
2.4.2.2 Expansion of Healthcare Facilities

From first FYP after the state formation (FYP-2), the GOK had given priority to address the inadequacy in healthcare infrastructure and ensure primary healthcare. As shown in Figure 2.4, FYP-2 of GOK contained medical infrastructure expansion, massive awareness on public health and vaccination etc for such purpose (GOK, 1960b). As part of expanding medical infrastructure, GOK increased the number of PHCs and CHCs and specialised hospitals where the services of the junior doctors are utilised for the services at local levels. To address the scarcity of medical personnel, the state government started new medical colleges, besides increasing the turn-out of doctors from the existing medical colleges (GOK, 1963). Priorities to MCH services for infants, children and young mothers were the other notable feature of GOK intervention. The GOK strengthened the coverage of immunisation and launched a massive campaign against communicable diseases which resulted in prevention of various epidemics that used to break out mainly in the rainy season during the onset of the South-West Monsoon. The Malabar region and the hilly as well as coastal parts where the healthcare was not sufficient were given priority in those periods (Krishnan, 1985). Notably, such activities for ensuring primary health were continued in the FYP-3 and FYP-4 (see Figure 2.4) (GOK, 1961a; GOK, 1969b).

The early 1960s saw Kerala facing major challenges from the communicable diseases such as fevers, dysentery and diarrhea (GOK, 1960b). The outbreak of such diseases was attributed to inadequate water and sanitation facilities, poor environmental hygiene and also less nutritional intake of the population (GOK, 1966). Since the FYP-3, GOK intensively implemented various Water and Sanitation programmes to resolve these challenges. Moreover, it ensured clean drinking water and sanitary facilities especially in schools (GOK, 1960b). Though the land in Kerala is fertile, preponderance of cash crops made it a food deficit state and its nutritional intake was much lower than that of other Indian states (Franke and Chasin 1992). In the sixties, GOK expanded the school feeding programmes to all the students with assistance from Cooperative for American Relief Everywhere (CARE). As noted by Caldwell: “A comprehensive free meal system was started in primary schools (which almost all Kerala children attend) during the break-through period, in 1961, and three-quarters of the children, including the vast majority of the poor, take these meals
(Caldwell 1986)”. Later, food supplement programmes expanded to pre-school children and nursing mothers. Apart from these, the GOK ensured quality food at affordable prices through its fair-price shops especially after 1964 and about 99 per cent of villages had at least one fair-price shop in Kerala.

The improvement in healthcare and education especially that of females led to the adoption of small family norms in Kerala in the early 1960s which in turn might have contributed to the health of mothers and infants (Nair, 1974). Later, the GOK gave priority to Family Planning programmes and took it beyond population control to betterment of maternal and child health (See Figure 2.4). Family Planning clinics, which were only 10 in number, increased to 1446 by the end of 1965-66 (GOK, 1967). The Family Planning Facilities were available for sterilisation and IUCD in all the 143 PHCs. In addition, 18 Mobile Units were started exclusively for Family Planning in the state (GOK, 1967). The people who came for Family Planning thus also got familiarised with advantages of modern medicine.

By the end of 1971, Kerala could achieve LE of 61 years while it was only 47 years at all-India level (CDS/UN, 1975). Such health attainment was also visible in IMR and CDR where Kerala recorded much lower IMR and CDR at 58 and 9.0 respectively compared to India at 129 and 14.9 respectively (RGI, 2009). There was commendable advancement in healthcare infrastructure in the state. For instance, in 1966-67 the bed availability per lakh of population rose to 102 that was the norm suggested by Mudaliar Committee (One bed per 1000 population). Also, the state achieved more than required number of doctors during the period 1966-71 (GOK, 1967). At the micro level, the GOK initiated several measures to uplift health status in the neglected parts of the state especially Malabar through vigorous immunisation programmes and health infrastructure (Krishnan, 1985; Caldwell, 1986). In effect, all these efforts was successful in controlling communicable diseases, maternal and infant deaths that emanated from poor environment, medical facilities and undernourishment, as this was a ‘break through’ period in the history of health in Kerala (Krishnan, 1985). While comparing the FYPs of GOI and GOK during this period, one may not find many differences in its focuses as seen in Figure 2.4. However, it is evident that GOK is successful in planning and implementing health
targets by the integration of health and related sectors to attain the best health results out of its all efforts.

2.4.3 Consolidation of State Intervention (1970-1985)

As discussed above, the achievements of Kerala in its health status and healthcare infrastructure far outpaced national averages before the 1970s. The change also reflected in its changing pattern of causes of death where dominance of deaths due to communicable diseases shifted to non-communicable diseases in those years. Small pox was eradicated, Malaria was wiped out and the number of deaths from cholera became negligible and the deaths due to fever significantly declined (Franke and Chasin, 1992, Thomas and James, 2014). However, the state began to experience the threat of non-communicable diseases mainly Cancer and cardiovascular diseases (RGI-CDSR and RGI-MCCD, Various Years). According to Panikar: “The proportion of patient treated for Cancer and Cardio-vascular diseases at the MCH during 1962-63 came to 12.1 per cent and 8.8 per cent respectively; these proportions increased to 16.3 and 9.8 per cent in 1971-72. Apparently, the number of cancer patients seeking treatment at MCH has increased more steadily and steeply than of patients suffering from cardiovascular diseases (Panikar, 1999, Page 13)”. Besides, to address these new challenges, GOK had to resolve the disparities in the healthcare across the districts. For instance, Trivandrum, Alleppey, Trichur and Kozhikkode are ahead in bed population ratio while Quilon, Idukki, Palakkad, Malappuram and Kannur were served poorly (GOK, 1975).

2.4.3.1 Approach of GOI on Healthcare (1970-85)

The GOI’s policies and approaches on healthcare are also relevant in order to understand the interventions of the GOK during 1970-85. Notably, major concern of GOI was to control various communicable diseases which often break out and lead to huge death toll because of inadequate healthcare, undernourishment and unhygienic environment. On the other side, GOI has to give emphasis on controlling its enlarging population (GOI, 1974a). Figure 2.4 and Figure 2.5 record that three FYPs were implemented between 1970 and 1985. Through, the FYP-5 (1974-79), GOI focused on strengthening national communicable disease prevention programme, nutritional provision, water and sanitation, MCH activities, Family Planning and also Minimum Needs Program (MNP) that aimed to expand the rural infrastructure including that for
healthcare. Since FYP-6, most of such programmes were focused on removing regional imbalances (GOI, 1980). In order to resolve the scarcity of medical personnel, two programmes were started; Community Health Volunteers programme\(^9\) and Re-orientation of Medical education\(^10\) (GOI, 1980). It also focused on the development of referral services for the specialist attention in the rural areas. Moreover, the FYP proposed to expand the medical education and cancer prevention in the country (GOI, 1974a; Duggal, 2001).

Three major national policies related to health were enacted by GOI during this period (see Figure 2.5). The first one was National Children Policy (NCP -1974) that aimed to improve the health status of the children and hence to reduce their death rates. The second was National Population Policy (NPP – 1976) which targeted population control and family welfare. The National Health Policy (NHP – 1983) was the third which focused on primary healthcare system by giving all support to preventive, promotive and rehabilitative services through a decentralised system with community participation. It favored private heath sector mainly for curative services and was aware that the expansion of private healthcare would reduce the healthcare burden of the government (Duggal, 2001).

Changes through these policies and approaches can be attributed to the recommendations of various committees between 1970 and 1985. While mentioning the large inadequacy of primary healthcare in rural areas, Kartar Singh Committee (1973) recommended reinforcing and integrating various vertical health services into primary healthcare packages for rural areas and suggested the appointment of multi-purpose male and female workers by delegating uni-purpose workers (Kartar Singh Committee, 1974). Wats Committee (1974) observed increasing prevalence of deaths due to Cancer and suggested steps to promote preventive care and establishment of Regional Cancer Centre for the research and treatment (Wats Committee, 1974). The Srivasthava Committee (1975) which was appointed to suggest measure to improve medical education and manpower recommended the appointment of ‘Community Health Workers’ in 1977 by training part-time workers for basic promotive and

---

\(^9\)The Community Volunteer Programme was started in 1977 with an objective to train community volunteers from the community itself for every village or for 1000 population

\(^10\)Re-orientation of Medical education, directed that each medical college in the country has to adopt three PHCs in its first phase to provide the rural bias to medical education, curative care and medical facilities to rural population (see FYP-6)
curative skills in the villages. Besides, it was the first committee that recommended the strengthening of curative health services in the rural areas (Srivasthava Committee, 1975; Duggal, 2001). Besides all of them, the Alma Ata declaration of ‘Health for All by 2000AD” (1978) and combined reports of ICSSR-ICMR (1981), along with high dissatisfaction on existing healthcare system forced the GOI to carry out appropriate intervention in the health sector (ICSSR-ICMR, 1981).
Figure 2.5 State Policies Related with Health in Kerala (Consolidation Period of State Intervention 1970-1985)

**GOVERNMENT OF INDIA**

- Special Nutrition Programme
- Five Year Plan 5 (1974-79)
  - National communicable disease control
  - Medical education
  - Nutrition for children & mothers
  - Cancer prevention
  - MNP: Rural healthcare, infrastructure
  - Family Planning
  - Referral services
  - Intensive water & Sanitation
  - Psychiatric clinics

**GOVERNMENT OF KERALA**

- Five Year Plan 5 (1974-79)
  - Rural Water & Sanitation
  - PHCs Construction - MNP
  - Dispensaries, PHCs to Rural Hospital
  - Women & Child, District Hospitals

- Programs against Small Pox, Cholera, Leprosy, Filaria

- Regional Public Health Laboratory
  - Pre-School Feeding
  - Workup Act (1974)

- Integrated Child Development Services (1975)
  - Women Empowerment Programme
  - One Free Meal in local village nurseries

- National Population Policy (1976)
  - Training for Dais

- K.N Pai Committee (1979)
  - Healthcare Machinery & Infrastructure
  - SEP: Healthcare Infrastructure Expansion

- Five Year Plan 6 (1979-84)
  - Control communicable disease
  - Mobile Clinics
  - Drugs for Sub-cities
  - Cancer detection Centres

- Strengthening Institutional Delivery
  - Dispensaries- Backward Areas
  - Janatha Paywards

- MCs into referral hospitals (1980)
  - New Medical College (1982)
  - Universal Immunisation Programme (1985)

- Other Programs 1982-85
  - Mental Health & Neuro Sciences (1982)

Source: Author's Calculation from various literature surveys
While comparing the specific need of Kerala, the suggestions of GOI through its FYPs and Acts may not be a sufficient one. It was suitable to enhance the existing mechanism to prevent communicable diseases, provision of MCH services and Family planning programmes etc. Remarkably, several such programmes by GOI was already been implemented in Kerala much before 1970s as discussed earlier. Since Kerala was undergoing an epidemiological transition, it required fresh guidelines to address the new challenges of non-communicable diseases especially cancer and cardio-vascular diseases. However, contribution of GOI towards this requirement was largely limited to cancer prevention. The following session, the chapter analyzes, how much GOK has initiated for healthcare for the requirements during this period.

2.4.3.2 Consolidation on Healthcare Intervention of GOK

Between 1970 and 1985, the GOK has initiated several new programmes or strengthened the earlier ones for healthcare in the state. As noted in Figure 2.4 and 2.5, the major focus of the FYPs of GOK was on the provision of primary healthcare mainly in rural areas as suggested by the GOI. In this regard, the FYP 5 (1974-79) and FYP 6 (1979-84) aimed for increasing the number of dispensaries and PHCs with MNP programmes and also convert some of them into rural hospitals (GOK, 1974b). Remarkably, the GOK could extend medical facilities to every Panchayat at end of 1975-76 either in the form of allopathic, ayurveda or homeopathy treatment (GOK, 1975; GOK, 1979b). The number of state hospitals increased from 108 to 150, PHCs from 163 to 299 and the dispensaries from 247 to 520 in allopathic stream in this period. Besides, high attention was given to the betterment of health of women and children and the bed strength in District and Taluk hospitals were increased (GOK, 1975).

Another major feature of health intervention in this period was its attention to the health of children that perhaps can be attributed to NCP-1974. Towards this, GOK launched Integrated Child Development Services (ICDS) in 1975. The ICDS consisted of supplementary nutrition, immunisation, health checkup, referral services, pre-school non-formal education and health education etc. (GOK, 1977). There were six ICDS projects and 20 Day Care centres, benefiting about 57,200 and 1000 children respectively in the year 1977. Besides, 1000 centers benefiting 2 lakh children under Special Nutrition Programme and 2000 centres benefiting 2 lakh children under World Food Programme were active in the state. Moreover, there were
8 institutions that provided support to children under the categories of children’s home, care home for disabled children, shelter for waifs and strays as well as home for mentally deficient children (ibid). Apart from these, 75% of all students aged six to ten were actually being fed with a hot lunch in the school and GOK facilitated to provide one free meal each day in the local village nurseries by funding women’s association (Franke and Chasin, 1992).

Several water supply schemes were completed under the supervision of KSRDB\textsuperscript{11} in the rural areas of Kerala that could have contributed to control communicable diseases. According Panikar and Soman “By 1980-81, more than 70 per cent of the urban and 29 per cent of the rural population were covered by protected water supply” (Panikar and Soman, 1984, Page 60). Similarly, the GOK initiated steps to provide housing facilities to ensure house for landless agricultural workers whose poor housing with dirty floors and palms roofs drew parasites and other contagious diseases. Notably, Indian census had revealed that about 20 to 25 per cent of the houses in the state were ‘not fit for human habitation’ (Census, 1971; Franke and Chasin, 1992). The GOK started a ‘One lakh house scheme’ in 1974 and ensured that 30,608 houses were constructed in the same year (GOK, 1974; GOK, 1975). Though this plan was abandoned later, Franke and Chasin noted that “Although the plan was not fully successful and cost far more than originally envisioned, 57,000 thousands of houses were built by 1978. In addition, several tens of thousands of families had houses built or improved under various supplementary programmes undertaken by the state government (Franke and Chasin 1992)”

Reinforcing the family planning programme for women empowerment, land reforms and Kerala Agriculture Workers Act of 1974 are the other relevant initiations of the period which enhanced the health status (see Figure 2.5). Beyond providing contraceptive measures, the GOK increased the expenditure for Family Planning sharply in the year 1976-77 in order to train 4000 ‘Dais’ as per the National Population Policy (GOK, 1977). It implemented several programmes for providing opportunities to women by equipping them with education, health, nutrition and family welfare etc (GOK, 1979).The GOK implemented land reform proclamation that involved the distribution of excess land to the tillers by fixing a maximum ceiling to the landownership which eased the availability of better nutritional intake. Apart

\textsuperscript{11}Kerala State Rural Development Board
from these, the Kerala Agricultural Workers Act of 1974 helped to improve the health and payments by fixing the working hours and payment for the agricultural workers.

With the FYP 6, the GOK intensified its attention to curative care apart from ensuring primary healthcare services in most backward and tribal areas with mobile clinics (see Figure 2.5) (GOK, 1979b). The GOK gave special attention to cancer prevention and mental health. It also appointed a high power committee under the chairmanship of Dr. K.N Pai to study the defects and drawbacks of existing healthcare machinery. The panel highlighted issues like overcrowding in the hospitals, inefficient emergency and clinical facilities and also unserviceable status of many costly equipment (GOK, 1977). To address the increasing need for curative care, Medical Colleges were converted into referral hospitals in 1980 to reduce the pressure on these hospitals as well as to improve the quality of specialised services. Besides, an additional medical college was also opened in 1982 and facilities in other medical colleges were upgraded (GOK, 1980; GOK, 1989).

The intervention of GOK resulted with better health status and infrastructure than that of the whole country during this period. In 1981-85, LE became 65.4 years for males and 71.5 years for females while it was only 55.4 and 55.5 years for males and females respectively for the whole country. Similarly, CDR of the state was 6.5 per 1000 person and IMR was 31 per 1000 births while those were 11.8 and 97 for India in the year 1985 (RGI, 2009). On the other side, the bed-population ratio in allopathic care became 119 beds per one lakh population and doctor-population ratio was 1:5694 in the early years of 1980s (GOK, 1988). For every 21 sq.KM, there was one medical institution and for every 38 sq.km one allopathic medical institution in 1987 (GOK, 1989). While comparing the intervention of GOI and GOK during the period 1970-85, it can be seen that GOK followed most of the suggestions made by GOI vis-a-vis healthcare intervention. If anyone expect that GOK could extend its intervention to address the non-communicable which is largely absent from GOI, may not see such actions except some measures against cancer prevention and a little expansion of curative services.


Even though Kerala attained better health status by its low mortality rates and high LE compared to national averages, various studies highlighted that the state began to experience “Low Mortality High Morbidity Syndrome” in 1980s (Ekbal,
2007; Panikar and Soman, 1984). Besides, the state was experiencing surge of chronic/degenerative diseases by its prevalence (WHO, 1984). Panikar and Soman observed that “On the one hand, the mortality rate is low, and even comparable to the levels obtained in high income countries. On the other hand, morbidity rate is high. As for the pattern of morbidity, the picture is again a mixed one. The dominant disease group resembles that of typical underdeveloped countries. At the same time, the emergence of atherosclerotic heart disease and of degenerative and metabolic diseases as major causes of morbidity resembles the situation in developed countries (Panikar and Soman, 1984, Page 90)”. Therefore, this juncture had called for a new strategy from GOK in its health intervention to address the emerging challenges.

Shift in the dominance of public healthcare facilities to the private sector is the other major breakthrough of 1980s. Perhaps, the surge of non-communicable diseases and high morbidity rate as noted above might have demanded a solid support of healthcare from the state. However, the state government which was prominently giving the healthcare earlier was experiencing a severe fiscal crisis during the period which affected its capacity for further extension of curative services. As noted by Kutty, “By early eighties, the government was beset with a mounting fiscal crisis- a widening gap between expenditure and revenues. This affected almost all areas of government, but direct service delivery by the state, as in education and health, was the worst hit (Kutty, 2007, Page 290)”. In this context, the study explores the health intervention of GOI and GOK during the period 1985 to 2000.

2.4.4.1 The Orientation of GOI on Healthcare

Since the FYP 7 (1985-90), the health sector and the GOI’s approach towards it have gone through several changes as noted in Figure 2.6. Though, the overall LE of the country has improved, disability and deaths from several communicable diseases remained unexpectedly high where as various non-communicable diseases have emerged as a new public health problem in India. Therefore, Health For All (HFA) is a long way off, even though the country had made the commitment of ‘HFA by 2000 AD at the Atma-Ata convention (GOI, 1992).

---

12Atma-Ata Convention is the first international conference that expressed their concern for health for all people, which was held in 1978 at present Kazakhstan.
Figure 2.6 State Policies Related with Health in Kerala (Moment of Outpacing Private Healthcare 1985-2000)

GOVERNMENT OF INDIA

- Communicable diseases control
- MIS for Planning, Implementing & Evaluating Healthcare
- Prevention of non-communicable diseases by MCs, RCCs
- HMIS
- Epidemiological Surveillance Centre
- Favor Private Healthcare & Panchayat Raj
- Appointment of Private Medical Practitioners
- RCH Programme
- Expansion of medical education
- LSGs for healthcare
- Voluntary and SHGs for healthcare
- User fee charges, Medical Insurance
- Sanitation, safe water, women & child
- Technical capabilities for healthcare
- National Mental Health
- National Iodine Deficiency

GOVERNMENT OF KERALA

- Basic Healthcare for Rural People
- Population control
- Nutritional services
- Safe water & Sanitation
- Communicable diseases eradication
- Healthcare manpower
- Specialty care for Non-Communicable diseases
- Strengthening ICDs
- Blood transfusion services
- Improving PHCs, CHCs, MCH services
- Water supply & sanitation
- Referral system in hospitals
- Decentralisation of mentalcare
- Strengthening ICDS & others
- HIV/AIDS prevention
- MCH initiatives
- RCH implementation
- Rural sanitation programmes
- Upgradation of PHCs to Basic Secondary Care
- Sanitary latrines through NREP, RLEGP, CRSP, JRY, DWCRA

Source: Author’s Calculation from various literature surveys
During the FYP-7, the GOI continued the MNP which focused largely on primary healthcare issues. On the other side, by recognising the growing need to address non-communicable diseases, it initiated a comprehensive programme of action to control diabetes, hypertension, ischemic heart disease (IHD), rheumatic heart diseases (RHD) and respiratory infections (GOI, 1985a,b). In fact, it was the first FYP that gave priority to control non-communicable diseases. The action of FYP against non-communicable diseases emphasised health education to raise peoples’ awareness of these diseases and also enhanced provision of medical care. Medical colleges were linked with Regional Cancer Centres (RCC) and peripheral health infrastructures for such purposes. Remarkably, GOI continued its efforts to restrain non-communicable diseases by curative and promotive care in the consequent FYP 8 and FYP 9 (GOI, 1997). For instance, in FYP 9 (1997-2002) it strengthened National Cancer Control Programme, expanded National Diabetes Control Programme by an integrated treatment of diabetes mellitus, hypertension and heart disease and also began the National Mental Health Programme and National Iodine Deficiency programme (GOI, 1997).

Favoring private initiatives in the health sector is the other feature of GOI that is specifically visible from FYP 8 (1992-1997) (see Figure 2.6). Perhaps, the inadequate financial and human resources to improve or even maintain the healthcare system along with towering requirement of curative care and high population growth might have led to such a decision. According to Duggal, the country adopted a new slogan, ‘Health for the Underprivileged’ instead of ‘Health For All 2000 AD’ (Duggal, 2001). The other notable initiation in the period is GOI’s recognition of Panchayat Raj system as an effective instrument for improving the health status especially of rural masses through community participation (GOI, 1992). It reinforced MCH services under Reproductive Child Health Programme\(^\text{13}\) (RCH) which was designed as a need-based, demand-driven and high quality integrated reproductive child care as recommended by Bajaj Committee. For implementation of the programme, GOI relied on the involvement of Local Self Governments (LSGs). According to the FYPs, such institutions would ensure planning, implementation and

\(^{13}\)RCH is a national program, launched in 1997 that focused reduction in the death rate of newborn, infant and their mothers with universal and quality healthcare services. Besides, it also oriented for maternal care, prevention of unwanted pregnancy, management of Reproductive Tract Infection (RTI) and Sexually Transmitted Infections (STI)
monitoring of health and family welfare services at the local level and would also co-
ordinate between related sectors such as sanitation, safe drinking water and women 
and child development (GOI, 1997).

Various devices were also suggested to reinforce health sector during this 
period. It included establishment of epidemiological-cum-surveillance centers at 
district/ regional level, Management Information System (MIS) for planning, 
implementing and evaluating healthcare intervention and University of Health 
Sciences for the states (GOI, 1985; GOI, 1992; GOI, 1997). In order to meet the 
growing need of tertiary care institutions such as complex diagnostic and therapeutic 
modalities, FYP 9 tried to improve technical capabilities of such institutions. 
Moreover, these institutions were planned to link with primary and secondary care 
institutions to ensure the quality care even in remote areas (GOI, 1997). Apart from 
that, the FYP appointed private medical practitioners for part-time practice to resolve 
the scarcity of physicians in PHCs and CHCs (ibid).

In short, the orientation of GOI in the healthcare through its FYPs in 1985-
2000 was largely suggested for the primary healthcare facilities mainly through 
decentralization. Nevertheless, considerable attention was given to address the non-
communicable diseases mainly by strengthening curative/specialty medical facilities 
and also favoring private healthcare sector. The chapter further discusses the 
intervening strategies of GOK and explore what extent it have considered the 
growing need of the time in the coming session.

2.4.4.2 The Intervention of GOK in Healthcare

The FYPs of GOK and its other actions corroborate the fact that the state 
largely followed the path of GOI in healthcare during 1985-2000. As shown in Figure 
2.5 and Figure 2.6, the focus of intervention of GOK consisted of ensuring primary 
healthcare, provision of nutrition and sanitary facilities, family planning 
measurements, MCH services and also improvisation of manpower (GOK: 
1979b, 1984b, 1990b, 1997b). The GOK implemented Universal Immunisation 
Programme (UIP) of GOI to eradicate six major diseases such as diphtheria, 
whooping cough, tetanus, childhood tuberculosis, poliomyelitis, and measles in the 
year 1985. The orientation of UIP programme was to achieve universal child 
immunisation in the year 1990 as part of ‘Health for All by 2000 AD’. Remarkably,
the state’s achievement was hundred per cent for pregnant women with TT Immunisation and over 90 per cent for infants with DPT, Polio and BCG Immunisation (GOK, 1991). Apart from this, there were special immunisation programmes and prophylaxis programmes against nutritional anaemia among mothers and children and against blindness among children due to Vitamin-A deficiency (GOK, 1984b). One of the notable features of the success of immunisation programmes was its collaboration with family planning programmes in the state. The extent of acceptance and practice of birth control measures helped the integration of health, family welfare, maternity and child health and nutrition services at all levels (GOK, 1985).

Protein and energy malnutrition are the most wide spread form of malnutrition found among pre-school children in Kerala during the period. According to government reports, 47.4% of children suffered from mild form of malnutrition, 32.9 % suffered from moderate form of malnutrition and 2% suffered from severe malnutrition (GOK, 1994). Several programmes on provision for nutrition were functioning in the state. It included Integrated Child Development Service Scheme, Special Nutrition Programme in Urban Areas, Applied Nutritional Programmes and Composite Programme for Women and Pre-School Children and Mid-day meal programme in schools. There were 120 ICDS projects in 1997 that ensured 300 calories and 8.12 gm of protein for children of the ages 0-6 years and 500 calories and 25 gm of protein per day for pregnant women and nursing mothers (GOK, 1997b). Apart from these, FYP 9 implemented various MCH services and RCH programmes in the state (ibid). Improvement in water and sanitation was another notable achievement. It was recorded that around 40,000 to 50,000 latrines were constructed by various government agencies in a year during this period (GOK, 1994).

Implementation of Panchayati Raj Act/ Kerala Municipality Act in the year 1994 is the other major step of GOK in the health sector that kept the essence of GOI’s recommendation for a decentralised healthcare. As per these Acts of 1994, 2,398 institutions were transferred to local bodies that include 1,139 for Grama Panchayats, 1,101 for Block Panchayats and 126 institutes for Municipalities (GOK, 1997). The Act aimed to provide the possibility to operate a health service in which the people themselves will play a dominant role. Though the government still retained
control over the appointment of its staff and purchasing of equipment and medicines, the people could mobilise to improve not only the curative care but also prevention and control of the diseases which originate in their environment.

There are also initiations from GOK to address non-communicable diseases mainly by providing advanced specialty care as recorded in Figure 2.6 for FYP 7 (GOK, 1984b; GOK, 1997b). The advanced specialty care programme identified various schemes for cardiology, cardio-thoracic surgery, neuro surgery, nephrology and transplant unit, plastic and reconstructive surgery, gastroenterology, hematology, endocrinology and metabolism as well as genetics and immunology (GOK, 1984). Moreover, it appointed an Expert Committee on Blood Transfusion Services on the basis of the gap between the blood collected at 180000-200000 units as against the annual requirement of 344700 units. Besides, PHCs were upgraded to secondary care centers through Social Safety Net Scheme (SSNS) by construction of labour rooms, operation theatres, ambulances and essential drugs at Malappuram district (GOK, 1984).

Certainly, the efforts of GOK in the health sector were fruitful in improving its health status during the period 1985-2000. For instance, the LE for males rose to 70.7 years and 76.1 years for females in the state whereas those were 61.0 years for males and 62.7 years for females respectively for the whole country during the period 1996-2000 (RGI, 2009). As noted in the earlier sections, the state could develop and maintain its better infrastructure in healthcare compared to the rest of India. Besides, the state could achieve 97 per cent of institutional delivery where the national average of the same was only 60 per cent at the end of 1990s (GOK 1997b). Remarkably, the health intervention of GOK was more or less similar to that of GOI’s suggestion as recorded in Figure 2.6. Nevertheless, there was scanty evidence to show whether the GOK initiated any programmes or policies in addressing the new challenges of epidemiological transition such as chronic/degenerative diseases, accident and injuries except making some initial steps towards specialty care. In this aspect, the intervention of GOK was largely insufficient and this was even lesser than GOI’s suggestion during the period 1985-2000.

It is notable that private healthcare institutions mushroomed in Kerala during the period 1985-2000 in order to address the medical demands from new...
epidemiological challenges were the state intervention was highly insufficient. According to Ekbal, “the number of beds in the government institutions grew from around 36,000 to 38,000 in the 10 year period from 1986 to 1996, whereas in the same period, beds in private institutions grew from 49,000 to 67,500. This amounts to nearly 40% growth in the private sector beds in a period of 10 years as against nearly 5.5 % in the Government sector. In the case of doctors, about 5,000 doctors work in the government sector whereas double the number work in the private sector (Ekbal, 2007, Page 283)”’. In the following session, the study aims discuss the aftermath of insufficient state health intervention, drawbacks of private healthcare initiatives and consequent actions of both GOI and GOK in the state.

2.4.5 Re-enforcement of State Healthcare (since 2000)

2.4.5.1 Towards the Healthcare crisis

It is evident that the healthcare in Kerala was moving towards a crisis in the early years of 2000s (Ekbal, 2007). Death from communicable diseases had become negligible. However, hepatitis, typhoid, dengue, Chikungunya, leptospirosis, scrub typhus etc. remained common especially with arrival of South-West Monsoon (GOK, 2003). Environmental degradation also peaked, causing pollution and unhygienic situation that further worsened the health status (KHP, 2013). At the same time, non-communicable diseases such as cardio-vascular diseases (mainly Coronary Artery Diseases (CAD)), cancer, type-2 diabetics etc. increased and accounted for 53 per cent of overall mortality rates and 44 per cent of disability rates (GOK, 2011). There were significant number of deaths and trauma from accidents, homicides, suicides and HIV/AIDS in Kerala. That apart, 8.6 lakh people were identified as disabled in the state (Census, 2001a,b). In all, there was a sporadic increase in morbidity rate from various diseases. The PAP\textsuperscript{14} was around 95 per thousand people in 1994-95 that became 240 in the year 2004 and, according to NSSO, an increasing share of aged population presently accounts for 11.2 per cent of Kerala population (NSSO, 2005).

The healthcare infrastructure, specifically those under the GOK, was not capable of addressing the challenges of those years. Most of its institutions suffered from absence of supportive infrastructure and lack of trained technicians/staff to

\textsuperscript{14}Proportion of Ailing Persons (PAP) reflects the number of persons reporting ailment during a 15-day period per 1000 persons
operate the equipment. About 18 per cent of the equipment remained idle only because of minor repairs. Moreover, 16 per cent of the total equipment in various medical institutions was obsolete or unserviceable (GOK, 2001). Though the medical colleges were treated as referral hospitals, people with even minor ailments reached medical college hospitals and demanded better treatments from professionals. This led to overcrowding in Medical College hospitals, stretching the already scarce facilities (GOK, 2004).

The public institutions which earlier used to provide sufficient healthcare to the public became unsatisfactory healthcare providers especially for the poor. As quoted by Ekbal “the public health system is getting alienated from the people and only 50% of the people even from the lower income group seek medical help from the government hospitals (KSSP, 2006 in Ekbal 2007, Page 282)”. On the other side, the private health system which emerged as a new alternative could not provide the healthcare at its lowest cost. The per capita health expenditure in the state has therefore spiraled up several folds between 1987 and 2004 (KSSP, 2006). Such a change severely affected the people, especially the poor, making it difficult for them to meet their growing healthcare requirements and pushed additional people into the poverty trap because of increasing healthcare burden (George, 2005).

2.4.5.2 Healthcare Approach of GOI

By and large, a similar situation of healthcare necessity was observed for most of the Indian states by GOI similar with Kerala in the end of 1990s. According to GOI, “during the 1990s, the mortality rates reached a plateau and the country entered an era of dual disease burden”. Communicable diseases have become more difficult to combat because of development of insecticide resistant strains of vectors, antibiotics resistant strains of bacteria and emergence of HIV infection for which there is no therapy. Longevity and changing lifestyle have resulted in the increasing prevalence of non-communicable diseases. Malnutrition, micro nutrient deficiencies and associated health problems coexist with obesity and non-communicable diseases (GOI, 2002, CHAPTER 2.8)”. This apart, National Commission on Macro Economics and Health (NCMEH) also reported to GOI that the burden of non-communicable diseases especially cardio-vascular diseases, diabetes, cancer, mental diseases, accidents and injuries are on heavy rise (NCMH, 2005). Considering this, the GOI
had to undertake a comprehensive initiative by directing its state governments to tackle new challenges of epidemiological transition.

The GOI launched a new comprehensive National Health Policy (NHP-2) to address the above mentioned challenges in the year 2002. At the outset, NHP-2 aimed to attain an accepted standard of health for all Indians in the near future. For this, it emphasised the provision of primary healthcare facilities and first line curative initiatives as recorded in the Figure 2.7. The policy tried to make a synchronised implementation of the goals in line with the objectives of National Population Policy of the year 2000 (NPP, 2000) in order to control communicable diseases, HIV/AIDS prevention, universal child immunisation, provision of reproductive health services and also for the improvement of basic healthcare infrastructure (NPP, 2000; NHP, 2002). Besides, it aimed to provide emergency life-saving services, promote rational drug use, strengthening of national programmes for disease control and family welfare etc. Notably, the policy also recognised the need to address non-communicable diseases such as CVDs, cancer, diabetes as well as accidents and injuries and directed to collect the statistics of such diseases for effective intervention (NHP, 2002).
Figure 2.7 State Policies Related with Health in Kerala (Re-enforcing State Healthcare - Since 2000)

<table>
<thead>
<tr>
<th>GOVERNMENT OF INDIA</th>
<th>GOVERNMENT OF KERALA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>National Health Policy - 2002</strong></td>
<td><strong>Five Year Plan 10</strong> (2002-07)</td>
</tr>
<tr>
<td>National Disease Control</td>
<td>CHCs-Casuality &amp; Delivery wing</td>
</tr>
<tr>
<td>National Family Welfare</td>
<td>PHCs-Fill the Backward areas</td>
</tr>
<tr>
<td>National Rural Health Mission-NRHM</td>
<td>Free healthcare for BPL people</td>
</tr>
<tr>
<td>National Urban Health Mission-NUHM</td>
<td>Water Supply</td>
</tr>
<tr>
<td>Essential Quality &amp; Primary care accountability</td>
<td>Kishori Sakthi Yojana (2000-01)</td>
</tr>
<tr>
<td>Public-private Healthcare collaboration efficiency</td>
<td>Adolescent girls</td>
</tr>
<tr>
<td>Promotional care against NCDs</td>
<td>Indian Institute of Diabetes (2001)</td>
</tr>
<tr>
<td>Sarva Swasthya Ensure equitable affordable Abhiyan</td>
<td>Kerala State Aids Control Society (KSACS)</td>
</tr>
<tr>
<td>PradhanMantri Swasthya Abhiyan</td>
<td>Kerala Heart</td>
</tr>
<tr>
<td>SurakshyaYojana - NCDs</td>
<td>KRISIS (2002)</td>
</tr>
<tr>
<td>Control Communicable diseases</td>
<td>Care for NCDs - Centre (2001)</td>
</tr>
<tr>
<td>Foster Public Private Partnership in healthcare</td>
<td>Foundation (2001)</td>
</tr>
<tr>
<td>Essential Healthcare Package (EHP)</td>
<td>Suicide prevention</td>
</tr>
<tr>
<td>Essential Drugs provision</td>
<td>DHDs &amp; THs (2000s)</td>
</tr>
<tr>
<td>RSBY against catastrophic burden</td>
<td>Emergency Medical Service for Accident surveillance</td>
</tr>
<tr>
<td>Old age care Healthy lifestyle Promotion of Indian system of medicine</td>
<td>Pain &amp; Palliative Drug Care-Cancer provision</td>
</tr>
<tr>
<td>Awareness against tobacco and road accidents</td>
<td>Care-Related Services for older people</td>
</tr>
<tr>
<td>Research &amp; Teaching</td>
<td>Old age Policy (2007)</td>
</tr>
<tr>
<td></td>
<td>Health Insurance (2008)</td>
</tr>
<tr>
<td></td>
<td>RSBY &amp; CIHS and Allied Sciences (2009)</td>
</tr>
<tr>
<td></td>
<td>Abkari Policy (2007-08)</td>
</tr>
<tr>
<td></td>
<td>National Programme- CVD, Diabetes,</td>
</tr>
<tr>
<td></td>
<td>Healthcare Up gradation Integration of health &amp; Coverage expansion related programmes</td>
</tr>
<tr>
<td></td>
<td>Universal Health Insurance</td>
</tr>
<tr>
<td></td>
<td>Mental Illness</td>
</tr>
<tr>
<td></td>
<td>Enhance service Modernisation of non- communicable medical facilities</td>
</tr>
<tr>
<td></td>
<td>Address non- communicable</td>
</tr>
<tr>
<td></td>
<td>Anti tobacco</td>
</tr>
<tr>
<td></td>
<td>Prevention of NCDs Tobacco advertisement</td>
</tr>
<tr>
<td></td>
<td>Prevention of ecological degradation for healthcare</td>
</tr>
<tr>
<td></td>
<td>Amrutham Arogayam (2013) - NCDs</td>
</tr>
<tr>
<td></td>
<td>Kerala Health Policy - 2013</td>
</tr>
<tr>
<td></td>
<td>Nutrition Citizen's rights</td>
</tr>
<tr>
<td></td>
<td>Gender sensitivity</td>
</tr>
<tr>
<td></td>
<td>New born care</td>
</tr>
<tr>
<td></td>
<td>Adolescence Health</td>
</tr>
</tbody>
</table>

Source: Author's Calculation from various literature surveys
The NHP-2 ensured an equitable accessibility of health services irrespective of social and geographical constraints. It relied on decentralisation of public health system by upgrading the existing institutions and also considered the utilisation of Indian systems of medicines and homeopathy for healthcare. At the same time, the policy favored private initiatives for healthcare in all the three levels of services. However, it strongly advocated for a regulatory mechanism and accreditation for the private clinical practices (NHP, 2002). Apart from these, NHP-2 offered free essential healthcare to people who live below the poverty-line. It recommended the increase of public health spending to 2 per cent of India’s GDP and also suggested the state governments to increase their health sector spending by about 7-8 per cent by the year 2010 (ibid).

Determination of the GOI in implementing the essence of NHP-2 can be seen in FYP-10, FYP-11, and FYP-12 in India since the year 2000 as recorded in the Figure 2.7. It ensured the essential primary healthcare in FYP-10 (GOI, 2002). Later, the GOI introduced Sarva Swastha Abhiyan (Universal Health Mission) in FYP-11 where the plan gave importance to National Health Mission (NHM)\(^\text{15}\) which intensified primary care provision through decentralised governments. The NHM also focused on ensuring equitable, affordable and quality healthcare that is accountable and at the same time responsive to the needs of the population along with achieving the targets set under NHP-2 and the Millennium Development Goals (GOI, 2007). It also gave importance to promotive and curative care mainly to address the non-communicable diseases in the FYPs of GOI. Notably, the GOI was asked to start AIIMS-like institutions, upgrade of medical institutions through PMSSY\(^\text{16}\) and strengthen central hospitals during the period of FYP-11 (GOI, 2007). Apart from that, the FYP-11 and FYP-12 strengthened various programmes against HIV/AIDS, cancer, diabetes, CVDs, injuries and trauma as well as for old age health etc. Such programmes comprise of early detection and treatment of the diseases apart from

\(^{15}\)National Health Mission (NHM) is flagship program of GOI for strengthening the healthcare in the country. It was started with National Rural Health Mission (NRHM) in 2005, to meet the underserved healthcare need of rural areas specially that of 18 focused states. The action of NRHM comprise of provision of better healthcare through LSGs, water and sanitation, education, nutrition as well as social and gender equality. However, the activities of NRHM strengthened in FYP-12 as NHM and the program later included National Urban Health Mission as a sub-mission in the year 2013 for urban areas.

\(^{16}\)PMSSY for Pradhan Mantri Swasthya Suraksha Yojana
increasing public awareness and promoting a healthy life style (GOI, 2007; GOI, 2013).

Another feature of the GOI’s approach during that period was its support for Public Private Partnership (PPPs) mainly for NHM. On the other side, the FYP-10 had observed that growing commercialisation of healthcare and erosion of the social commitment in the health sector adversely affected the quality of care, trust and the rapport between healthcare seekers and providers. As a remedy, GOI attempted to bring quality, accountability, efficiency and effectiveness in the health sector through its FYPs. Besides, considerable attention was given to strengthen the existing teaching institutions by providing leadership in research, practice on various medical conditions and research themes. Moreover, GOI oriented social healthcare insurance by introducing an effective risk-pooling mechanism to reduce the out-of-pocket health expenditure (GOI, 2002; GOI, 2007; GOI, 2013). With FYP-12, GOI introduced an Essential Healthcare Package (EHP) to ensure accessibility to all the level of public health services. For this purpose, it envisaged a sector-wise memorandum (MoU) between the Central and state governments by formalising its mutual commitments and healthcare reforms (GOI, 2013).

By comparing the approach of GOI with the healthcare requirements of Kerala as mentioned in the above section, one can say that most of the GOI’s initiatives were suitable for the state. However, the approach of GOI with regard to NHP-2 came under the criticism that though there were several innovative ideas in its recommendation, the budget allocation for them was severely inadequate (Kishore, 2002). Additionally, the policy lacked coordination of different programmes and hence failed to avoid duplication of services. At the same time, imposition of user fee charges increased the burden of poor people who largely depend on the public health services (Quadeer, 2002). In the following section, the study explores the action of GOK in order to address the new challenges in healthcare system by considering the recommendations of GOI.

2.4.5.3 Healthcare Intervention of GOK Since 2000

The healthcare system in Kerala went through a drastic reformation since 2000. After the implementation of FYPs 9-12, National Population Policy 2000, National Health Policy 2002 and the implementation of NRHM and NUHM, the state
experienced radical changes in the approach, planning and implementation of healthcare policies. The recommendations of GOI reflected in the initiatives of GOK during this period are recorded in the Figure 2.6 and Figure 2.7. The rest of the chapter explores these by broadly classifying them into; (i) Interventions for primary healthcare and MCH services (ii) Approach towards non-communicable diseases (iii) Approach to promotive care and (iv) Healthcare-related policy reforms.

2.4.5.3a Intervention to Ensure Primary Healthcare and MCH Services

The GOK initiated various steps to strengthen the primary healthcare mainly to address the communicable diseases, provision of clean water, sanitation and nutrition as well as MCH services since the year 2000 as recorded in Figure 2.6 and 2.7. Even though most of the communicable diseases were under control, the state often faced the outbreak of epidemics including dengue, Japanese encephalitis and Weil’s diseases and re-emergence of eradicated diseases like malaria etc. apart from incidence of HIV/AIDS (Ekbal, 2007). The GOK founded Kerala State Institute of Virology & Infectious Diseases in 1999 in order to address such challenges. The GOK strengthened the activities against HIV/AIDS through the Kerala State AIDS Control Society (KSACS). This society was dedicated to preventing the spread of HIV /AIDS through advocacy, education, empowerment, outreach, preventive services and improving the lives of people with HIV/AIDS by providing them care and support services. Besides, State Institute of Health and Family Welfare was established in the year 2004 to provide training facilities for health and family welfare which later expanded with the help of ECSIP\(^7\) in the year 2007 (GOK, 2007). Moreover, the GOK initiated Kerala Hand-wash Programme to promote sanitation through village panchayats and municipalities (GOK, 2002a).

The maternal and infant health in Kerala, though better than other Indian states, was low compared to international standards and remained stagnant in the last few years. The state implemented a new strategy to reduce the maternal deaths through a standard framework with the support of Kerala Federation of Obstetrics and Gynecology (KFOG) and National Institute of Clinical Excellence (NICE) of UK. Similarly, it implemented Neonatal Intensive Care Unit (NICU), Special New Born Care Unit (SNBCU) and New Born Care Corner (NBCC) and other new born care

\(^7\)ECSIP denotes European Commission supported Sector Investment Programme
facilities and delivery points to reduce infant death rates. At the same time, it started a New Born Screening Programme to address congenital diseases-induced disabilities.

Various programmes were also initiated apart from maintaining the existing immunisation and nutritional programmes for children and nursing mothers. Weekly Iron Folic acid Supplementation Programme (WIFS) for the school-going children of classes 6-12, Hospital Based Adolescent Friendly Health Clinics (AFHCs), Kishori SakthiYojana (KSY) for the development of adolescent girls, NRHM-NSS teens clubs and awareness programme through curriculums are notable among them (GOK - 2013). Besides, the state also initiated Udisha Training Programme to provide training for ICDS functionaries who carried out all 163 ICDS projects in the year 2007-08. In short, the intervention of GOK contained the essence of GOIs approach and even extended it further by its attempt to attain best outcomes from primary healthcare services considering the specific needs of the state.

2.4.5.3b Approach towards Non-communicable Diseases and Curative care

Another major dimension of GOK’s intervention was its initiatives in addressing the challenges from non-communicable diseases that is recorded in Figure 2.7. As mentioned earlier, there was a surge in number of cases of non-communicable diseases such as CVDs, diabetes and cancer etc. as well as accidents and injuries in Kerala. Such causes caused high morbidity and mortality while fueling a soaring healthcare burden in the state (see Section 4.5.1). During 2000s, the GOK planned to provide curative care mainly for the non-communicable diseases by adding or upgrading the necessary infrastructure through GHs, DHs and THs (GOK, 2002a; GOK, 2012a). Besides, it implemented NPCDCS\textsuperscript{18} which focused on curbing the prevalence of such diseases at the sub-centre level which was titled as ‘Amrutham Arogyam’ (GOK, 2013).

Though the prevalence of morbidity and death due to cancer is high in Kerala, the access to public health care was highly inadequate, except from a few specialised institutes such as Regional Cancer Centre (RCC) and Malabar Cancer Centre (MCC). Besides, radiotherapy is only available at 5 medical colleges. The GOK proposed to establish early cancer detection and chemotherapy centers in all the district hospitals

\textsuperscript{18}NPCDCS denotes National Programme for Prevention of CVD, Diabetes, Cancer and Stroke
to address this issue. Apart from this, several palliative care centers have been established for elders in the state with the help of NGOs and LSGs. Notably, GOK has also given priority to other lifestyle diseases since FYP-10 as shown in Figure 2.7 (GOK, 2002b). It established Kerala Heart Foundation (KHF) and Indian Institute of Diabetes (IID) to control diabetes in the year 2001. The IID aimed to focus on clinical care, sub-specialty services, epidemiological studies of non-communicable diseases, health awareness in schools, work places and also at the community level. Later, it was expanded as a nodal agency for national programme for the prevention and control of diabetes, CVDs and stroke in the state.

The GOK established a Medical University in the year of 2009 as “Kerala University of Health and Allied Sciences”. The prime aim of this establishment was to ensure proper and systematic instruction, teaching, training and research in modern medicine, Homeopathy and Indian Medicines including Ayurveda, Yoga, Naturopathy, Unani and allied subjects and also to bring uniformity in various academic programmes (GOK, 2008).

There were several schemes started by the GOK to reduce the healthcare burden of the poor due to non-communicable diseases. A notable among them is Health Insurance Scheme, namely Rastriya Swastha BimaYojana (RSBY) for BPL workers mainly in the unorganised sector. Another plan was also launched in the year 2008 as Comprehensive Health Insurance Scheme (CHIS) to cover the non-RSBY population too. The NRHM programme upgraded/strengthened the public healthcare system by determining that the large amount of premium paid by GOI and GOK should flow into public system itself. Moreover, the GOK also vitalised a Society for Medical Assistance to the Poor, in order to enable financial support for life threatening diseases such as brain surgery, open heart surgery, pacemaker implantation, angioplasty, cancer, dialysis, and liver transplantation surgery etc for the poor people (GOK, 2008). In short, the actions of the GOK against the non-communicable diseases correspond with that of GOI’s recommendation for that period and even bettered it by its comprehensiveness.

### 2.4.5.3c Approach of Promotive Healthcare

Another striking feature of the GOK’s intervention healthcare since 2000 was its orientation towards promotive care specifically against non-communicable
diseases and injuries. Such an attempt seems new while comparing with that of its previous periods where we noted that the GOK had relied on curative care. Most of the non-communicable diseases such as CVDs, cancer, liver diseases as well as accidents and injuries were majorly attributed to sedentary lifestyle of the people and their excessive consumption of tobacco, alcohol and junk food etc. To control tobacco consumption, the GOK prohibited sale of cigarettes and other tobacco products around the educational institutions or within 100 yards of such institutions in the year 2004 (GOK, 2004b). In the year 2012, the Office of Commissioner of Food Safety banned the manufacture, storage, sale and distribution of gutka and other products that contain tobacco or nicotine as ingredients, by whatsoever name, in the state (GOK, 2012b). Besides, Department of LSGs (RD) banned advertisement/display of tobacco products in a film and video tape containing advertisement of tobacco products (GOK – LSG, 2013).

The GOK has a key role in determining the availability of alcohol in the market since both the Indian Made Foreign Liquor (IMFL) and Toddy (local brew) are strictly under its excise department. Nevertheless, the state still faced the problem of illicit alcohol of low quality, which sometimes claimed many lives. As per the Abkari Policy of the years 2007-08 and 2011-12, the GOK restricted the number of beverage outlets and other licensed suppliers, and the maximum quantity of liquor to hold without permit was re-fixed (GOK – TD, 2011). At the same time, it also provided large funds for educating the people against the ill effects of alcoholism, especially among younger generation (ibid).

Reformation of transport sector is a major change that affects death and disability and hence the health status as Kerala stands third in road accidents index in India. To address this issue, the GOK passed ‘The Kerala Road Safety Authority Act, 2007’. The Act focused on (a) road safety programmes; (b) awareness programmes on road safety; (c) purchases of equipment connected to road safety; (d) funding of approved studies on projects and research regarding road safety and (e) trauma-care programmes and related activities (GOK - LD, 2007). Later in the year 2011, the GOK started to implement the Transport policy drafted by its National Transportation Planning and Research Centre. The GOK also supports NGOs in spreading road
safety awareness campaigns to encourage safe road-user behavior (GOK - NTPRC, 2011).

The other remarkable achievement is the start of Kerala Integrated Scheme for Intervention in Suicide Prevention (KRISIS), which was launched in 2002 in the backdrop of alarming suicide rates in the state. The programme aimed at setting up counseling centers and clinics in Medical Colleges, district/hospitals and Taluk level medical institutions and to combine health, education and social welfare sectors for suicide prevention with the participation of public (GOK, 2011b). By looking at such measures, one can say that there was a significant level of concern shown by GOK to provide promotive care in order to address the new challenges of its epidemiological transition, i.e. non-communicable diseases and injuries.

2.4.5.3d Healthcare Related Policy Reforms After 2000

A major lacuna in the healthcare system in Kerala until the recent decade was the absence of a comprehensive health policy in order to guide its changing requirements. Though the state was able to control communicable diseases, the attainment was not enough. As discussed earlier, the GOK had to address the outbreak of some diseases, emergence and re-emergence of other diseases, besides tackling new problems arising out of inadequate sanitation, environmental degradation and also from increasing solid and liquid waste. At the same time, it needed guidelines to address the increasing challenges from non-communicable diseases and injuries, soaring healthcare burden and also the needs of its increasing old age population. The system was dependent on the acts of MPHA-1939 and TCPHA-1955 for the direction, rules and regulations for its referral purposes. But, these Acts were highly inadequate in order to address new challenges and current requirements in the health sector.

The Kerala Health Policy (GOK, 2013) was drafted in 2013 which was a significantly revised version of earlier policies addressing the new epidemiological challenges. The KHP- 2013 has four major goals (i) To position good health as the product of development agenda including water supply, nutrition, sanitation, prevention of ecological degradation, respect for citizen’s rights and gender sensitivity (ii) To ensure availability of the needed financial, technical and human resources to meet health needs of the state (iii) To effectively organise provision of healthcare from primary to tertiary levels through referral networks managed by
primary care providers to maximise efficiency and reduce costs and (iv) To regulate practice in health sector to ensure quality and patient protection (GOK, 2013).

At the outset, the KHP-2013 had several measures to address the new challenges of epidemiological scenario. Firstly, it aimed to ensure clean drinking water, better sanitation, scientific solid waste management and also financial risk protection from the diseases. Secondly, the policy sought to enforce regulatory measures such as laws for ensuring the safety of food and beverages as well as an effective implementation of a unified Kerala Public Health Act (KPHA) combining the MPHA-1939 and TCPHA-1955 by integrating necessary modifications for the current healthcare requirements. The KHP-2013 also focused on re-organising the existing 3-tier healthcare system by adding more responsibilities. According to the proposed system, GOK will develop a cadre of primary care providers similar to the Family Physicians and put them in charge of the health of a small population. Such cadres keep track of healthcare requirements by ICT system and would be capable of providing basic services and can also recommend specialist care at higher levels. The CHCs were supposed to provide basic specialty care, apart from remaining the coordinating agency for various programmes like palliative care and mental health programmes. Similarly, THs and DHs hospital will provide higher level care, with supporting services such as emergency services and laboratories etc., compared to the CHCs. MCs will provide specialist consultation to other hospitals and maintain the network care system of primary care providers (GOK, 2013).

In order to address the problem of non-communicable diseases, all the GHs, DHs and THs were directed to start specialised diabetic and hypertensive centers. Besides, the policy also gave concern for oral health and therefore focused on scaling up the availability of dental clinics in these institutions which can also serve as early detection centers for oral cancer and oral manifestation of AIDS (GOK, 2013). On the other side, KHP-2013 has given priority to promotive/preventive care. Such programmes consist of School health screening, health education in schools, educating and encouraging hotel and bakery groups to promote NCD food and banning of junk food in schools and government run canteens. As part of promotive healthcare, the state planned to start physical fitness centers with adequate machineries and equipment at LSGs level at major work sites and offices. The policy
also aimed to integrate the AYUSH system of healthcare against the lifestyle diseases ranging from common household remedies and prevention, to specialised treatments especially for stroke and CVDs (GOK, 2013). Above all, the policy sought to keep the superior quality of its public health sector and keep a template for implementing Universal Health Coverage in the near future.

The policy for the Old age citizen is the other major intervention of GOK in the recent years. Because of demographic transition and increase in LE, the proportion of Old age people in the state increased significantly. At the same time, much of the survivors to the older ages were facing high morbidity and disability. Notably, most of them belonged to the category of widows and rural population who required more care because of their poor social and economic conditions. The Old Age Policy was announced in the year 2006 and later revised in 2013 which in general ensures the protection and care of elders (age 60+) mainly widows, mentally challenged people, destitutes, severely ill people and orphans among them (GOK, 2006; GOK, 2007; GOK – SJD, 2013). The policy aimed to provide all support including healthcare to help people to live with dignity in old age. Besides, it aimed to start a Palliative Care Network Facility to care for bed ridden elders by reaching out to their house even if located in villages, with the help of civil society organisations. The GOK proposed to start a gerontology ward or unit in all the hospitals up to the Taluk level and give free medical care to those with annual income of up to Rs. 2.5 lakh. Moreover, it also sought to give palliative care for those who are bedridden due to cancer, paralysis, spinal injuries as well as mental disorders at the village level with help of Panchayati Raj Institutions (GOK, 2006; GOK, 2007; GOK – SJD, 2013).

Another major intervention in the health sector by GOK was the introduction of Palliative care policy for Kerala. Notably, because of the non-communicable diseases like cancer and CVDs, HIV/AIDS and also with increasing old age population, the state was in a heavy need for such an intervention (GOK, 2009). The pain and palliative care programmes included provision of care by training the medical staff and others, ensuring the availability of essential drugs and also incorporating modules in the educational courses. At the sub-centre level, male and female multipurpose workers can provide home-based care with the help of Community Based Organisations (CBOs) and the family members of the patients.
Moreover, PHCs and CHCs are empowered for such healthcare provision with the support of LSGs. The LSGs are suggested to be a common platform for CBOs, government and non-governmental institutions for palliative care initiation. Similarly, THs, DHs and MCs are suggested to have tertiary level pain and palliative care, with sufficient staff in all the districts (GOK, 2009).

An interesting fact is that much before drafting the KHP-2013 and other policies in Kerala, the essence of such policies were already being implemented through various programmes. Such implementation was evident from various actions against the new challenges of communicable and non-communicable diseases, accidents and injuries and old age care in the state as we noted in the previous sections. On the one hand, these policies largely followed the directions from GOI and on the other, they tried to incorporate the additional requirements for the specific needs of the state emanating from its ongoing epidemiological transition. Moreover, it is also evident that the GOK initiatives since the year 2000 largely involved community participation to address the new challenges arising mainly from non-communicable diseases. Since the impact of most of such interventions requires time to reflect in health outcomes such as further mortality decline and LE improvement, at this juncture we are unable comment on its effectiveness in the health sector.

2.5. Summary

Throughout the chapter, the study explored the state intervention through policies and Acts towards the epidemiological transition in Kerala. It specifically aimed to identify the major healthcare policies and approaches of the government, context of such policy formation and its compatibility with the then healthcare requirements etc. In this regard, the chapter discussed major policies, acts and other interventions mainly from the princely states and British colonial government for the period before the state formation, and that of GOI and GOK for the post-state formation period. The chapter further roughly divided the post-state formation period into sub periods as; Era of state healthcare expansion (1956-1970), Consolidation period of state intervention (1970-1985), Moment of outpacing private healthcare (1985-2000) and Re-enforcing state healthcare (since 2000), for better understanding. At the same time, the chapter attempted to bring a comparison of healthcare approach of the GOI with its corresponding relevance in the context of Kerala. Similarly, it also
highlights the follow up of GOK from the recommendations of GOI for its healthcare through various policies and approaches, including FYPs.

While examining the state policies on epidemiological transition in the pre-state formation period, it is found that various governments had placed significant attention on health status of the citizens, especially in Travancore and Cochin. However, the earlier intervention was limited to preventing the ‘social epidemics’ that mainly broke out in the context of social gathering such as festivals and fairs. Measures to control other communicable diseases such as malaria and filariasis were adopted belatedly. A significant breakthrough for healthcare before the state formation was the introduction of two public health acts vis, MPHA -1939 and TCPHA – 1955. Both of these Acts brought clarity in administration of healthcare and ensured several preventive diseases. Besides these programmes, the proclamation of education for all and school feeding programme also contributed to the epidemiological transition.

After the state formation, the GOK focused on reducing healthcare disparities and thereby universalising healthcare. It expanded medical infrastructure and manpower to the neglected areas of Malabar region. Besides this, the GOK increased immunisation programmes, MCH services and school feeding etc, apart from raising public health awareness. Since 1970s, GOK focused mainly on upgrading the sub-centers for essential services such as PHC and CHCs. It also tried to develop medical infrastructure in THs, DHs and MCs until the mid of 1980s to ensure better healthcare. Moreover, it introduced programmes of ICDS, housing and nutrition for children and women etc besides expanding the water supply, sewage and sanitation facilities. The GOK initiatives between 1970 and 1985 were largely aimed to strengthen its existing primary healthcare system as a period of ‘consolidation’ in the history.

Since 1970s the state began to experience an increased prevalence of non-communicable diseases, accidents and injuries as part of epidemiological transition. However, no significant intervention was evident against such challenges except starting an RCC and upgrading the secondary and curative healthcare until the 2000s. At the same time, private healthcare emerged as a new alternative to fill the vacuum created by the public healthcare system. However, it enhanced the healthcare burden
of the people. The increased morbidity and soaring healthcare burden can be an indication of the failure of GOK in recognising and addressing the needs of advanced stages of epidemiological transition mainly between 1985 and 2000, where the private healthcare seems more dominant to cater to the new needs.

The GOK initiated several steps against the new challenges brought about by epidemiological transition which consisted of preventive, promotive and curative care since 2000. The GOK initiated advanced healthcare for infants and mothers by reducing their death rates mainly from congenital abnormalities by strengthening the primary care. With regard to curative care, it started specialised diabetic and hypertensive centers, cancer detection centers in THS and DHS, upgraded curative care in MCs and specialised hospitals including the RCC. Moreover, there were several promotive interventions against diseases like cancer, CVDs and accidents and injuries such as restriction and campaign against tobacco and alcohol consumption as well as awareness about healthy lifestyle etc. The GOK came up with Kerala Health Policy-2013 for comprehensively addressing the challenges posed by the epidemiological transition. Moreover, Kerala Road Safety Act, the old age care policy and palliative care policy etc have also been implemented by the GOK for addressing the new scenario. However, it is too early to assess the impact of these later policies.

There were two major factors that influenced the state policies in dealing with the epidemiological transition in Kerala. The vibrant civil society is prominent among them which demanded healthcare from the state apart from achieving the socio-economic improvements. Such demands of civil society were evident mainly in Travancore and later all over the state in the initial years of state formation. At the same time, the directions of GOI also contributed in shaping the priorities of GOK in healthcare. Although both of these factors enabled the state to achieve better healthcare results against primary healthcare-oriented diseases in Kerala, their impact was low until 2000s in addressing the non-communicable diseases consequent to the epidemiological transition. However, the role of such factors is further evident especially since the last decade. It should be noted that though this chapter has looked at the major interventions of state on epidemiological transition through its policies and approaches, it largely ignores the exact impact in epidemiological outcomes reflected in mortality, causes of deaths and quality of life throughout the analysis-
period in the state. Also, it did not explore the pattern of expenditure at various levels of governments or statistically confirmed the relevance of it for the epidemiological transition. Such factors will be explored in detail in the following chapters.