THEORETICAL FRAMEWORK AND REVIEW OF LITERATURE

Chapter II
THEORETICAL FRAMEWORK AND REVIEW OF LITERATURE

2.1 Introduction

This chapter is divided into two sections. First section deals with the theoretical background and second section deals with the review of literature. The theoretical framework of our study is depicted in the third section.

2.1 Theoretical background

There are different theoretical models with regard to the health care services and utilization of the models. The major models are discussed in this section.

2.1.1. Health Services Model

The health service model developed by Kohn and White (1976) stands for the macro level of health services systems within which the health care process occurs will determine the magnitudes of the probabilities (Figure 2.1), since the structure and supply of services, as well as the philosophies underlying a given health services system, regulate the individual’s use of them. Although the social objectives of health services systems are rarely precisely articulated, their domains are at least crudely indentifiable. If these boundaries differ within and among nations and cultures, one would expect that under one system people with particular disorders might seek care from personnel within a formal health services framework, while under another system similar disorders might be taken to other social institutions. Likewise, the functional division of labour within a health

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services system specifies domains for each of its components, such as categories of manpower and facilities, thereby defining conventional points of entry as well as patterns of referral for particular disorders.

Fig. 2.1

Model of stages in the health care process

2.1.2 Health Behavioral model

The health behavior model was developed by Aday and Andersen in 1974\(^2\). This model attempted to explain variations in health services resulting from the interplay between predisposing, enabling, and need for care factors. The variables were predicted to have direct/indirect impact on the decision to delay needed medical care and on utilization.

This conceptual model was designed to take into account both: (1) the direct effects of the predisposing, enabling and need-for-care factors on physician utilization; and (2) the indirect effects of these variables on physician utilization.

via delay behaviors attributed to perception about access to and/or attitude toward medical care.

2.1.3 The Interaction Model of Client Health Behavior (IMCHB)

The IMCHB was used to explain the interaction between health care providers and the mother’s decision about whether or not to maintain health care. The components include client singularity, client-professional interaction, and client health outcomes.

2.1.4 Empowerment Theory

Empowerment theory by Koroloff and Elliot (1996) stands for low-income families have difficulties accessing and continuing services and their was designed to describe the barriers to access to children’s mental health care and focused on the effectiveness of the Family Associates who provided information, emotional and social support, and helped families to reduce barriers to services. This study was based on the concept of the Empowerment Theory. Empowerment was defined as a social action process for people to gain mastery over their lives and their lives of their communities (Glanz et al. 1997). The family associates helped families to obtain knowledge and experience leading to an increased sense of empowerment. From this study, the barriers were lack of respite care, transportation problems, lack of recreational opportunities, lack of emotional support and difficulty paying for utilities.

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2.1.5 The Health Belief Model (HBM)

The HBM was defined as a value expectancy theory applied to factors that influence someone to take prevention. The components included perceived susceptibility, perceived severity, perceived benefit, perceived barrier, cue to action, self-efficacy and modifying factors (socio-demographic variables; age, sex, race, income, etc.). The Health Belief Model formulated by Rosenstock (1966) contains the following elements (displayed in Figure 1): (i) the individual's subjective state of "readiness to take action" relative to a particular health condition, determined by both the person's perceived likelihood of "susceptibility" to the particular illness, and by his or her perceptions of the probable "severity" of the consequences of contracting the disease; (ii) the individual's evaluation of the advocated health behavior in terms of its feasibility and efficaciousness (i.e., an estimate of the action's potential "benefits" in reducing susceptibility and/or severity), weighed against perceptions of physical, psychological, financial, and other costs or "barriers" involved in the proposed action; and (iii) a "cue to action" must occur to trigger the appropriate health behavior; this stimulus can be either "internal" (e.g., perception of bodily states) or "external" (e.g., interpersonal interactions, mass media communications). While it is assumed that diverse demographic, personality, structural, and social factors can, in any given instance, affect an individual's health motivations and perceptions, these variables are not seen as directly causal of compliance.

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2.1.6 Equity of access model

The model of equity of access to care developed by Adey and Anderson (1981) is said to exist "when services are distributed on the basis of people's need for them. Inequity is suggested, however, if services are distributed on the basis of demographic variables, such as race, family income, or place of residence, rather than need. In terms of Fig.2.3, variation in the use of services as a function of the need component or associated age and sex correlates within the predisposing variables represent equity. Variation that is a function of the availability of services or how they are organized or other predisposing or enabling characteristics of the individuals themselves means that services are not equitably distributed.

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These are the specific models which are relevant to our study. In the next section we are overviewing the empirical literature in international and national level related to health status and health care accessibility.
2.2 Review of literature

In this section, the review of literature related to health care is given in thematic sections and it has been arranged chronologically.

2.2.1. Definitions on health care access

The Institute of Medicine defines access to health care as "... the timely use of personal health services to achieve the best possible outcomes" (Millman 1993).³

Health care or is the prevention, treatment, and management of illness and the preservation of mental and physical well-being through the services offered by the medical, nursing, and allied health professions (Bond and Bond 1994).⁸

Access to care is defined as “the timely use of personal health services to achieve the best possible health outcomes including preventive care and ongoing care for health problems or emergencies” (Berman 2001⁹). On the other hand, lack of access to health care means people use health services and achieve worse health outcomes (Mitchel et al. 1993).¹⁰

Access to health care has multiple definitions and its meaning in a given context is too often assumed (Khan and Bhardwaj 1994).¹¹

Uplekar and George (1994)¹² said that “conceptually speaking, access to health care would depend on availability, awareness, affordability and

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⁹ J. Berman (2001). Turning Point Initiative, Colorado Department of Public Health and Environment, P.37, 40, 44.
accessibility to health care services”. They added that determinants of access to health care are of two categories: factors concerning the users and those concerning the providers of health services.

The most basic problem is that it is both a noun referring to potential for health care use, and a verb referring to the act of using or receiving health care. This leads to confusion between ability to get care, the act of seeking care, the actual delivery of care and indicators thereof (Guagliardo 200413).

A number of barriers can impede progression from potential to realized access. Potential exists when a needy population coexists in space and time with a willing and able health care delivery system. Realised care, sometimes referred to as actualized care, follows when all barriers to provision are overcome (Guagliardo 2004). Penchansky and Thomas (1981)14 have usefully grouped barriers into five dimensions: availability, accessibility, affordability, acceptability and accommodation.

Truly ‘accessible’ health care means the three basic things: (i) care is available: people are diagnosed and treated promptly and can obtain quality preventive care early enough to avoid illness or complications. Services are offered within a reasonable distance from where people live; (ii) care is appropriate: the right mix of health care professionals exists to attend to people’s most frequent needs. Cultural and linguistic barriers are addressed in such a way that patients get proper diagnoses and can communicate effectively with their providers, (iii) care is affordable: Basic health insurance coverage is provided for

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Accessibility is the ease with which health services are reached. Access can be physical, financial or physiological and requires that health services are *a priori* available (Kelly and Hurst 2006). The factors of accessibility are grouped into three groups (i) availability (ii) acceptability and affordability (socio economic – ethnicity, religion; gender, age; caste) and (iii) geography (Penchansky and Thomas 1981; Oliver and Mossialos 2004)

### 2.2.2 Geographical aspects of health care access

Chambers (1982) argued that in many tropical environments, the wet season is the most crucial time of year, especially for the poor people, women and children. Commonly at that time malnutrition, morbidity and mortality peak; the costs of sickness are at their highest; sickness is most liable to make poor people permanently poorer; and health services are likely to be at their least effective.

Udupa (1991) observed that in Varanasi district of Uttar Pradesh, awareness about the Primary Health Centre declined as the distance between PHC...
and the respondent’s village increased. The decline in awareness as the distance increase was due to the poor outreach of PHCs and subcentres.

Visaria and Gumber (1996)\textsuperscript{21} analysed utilisation of health services by using survey data of 13,600 households from Gujarat. They found out the problem of physical access to various services in rural areas of the country. According to their opinion, the better-educated mother and adult female relatives would be able to ensure greater care in this respect than their less educated or illiterate sisters. They found out that the level of immunization is higher among scheduled caste and tribe households and the immunization level is positively associated with the educational level of the adult female in the household.

Yadav et al. (1999)\textsuperscript{22} presented geographical information system which could be extremely useful in public health for analysing spatial and non-spatial data. The GIS helps in indicating longitudinal trends, mapping population at risk, stratifying risk factors, planning and targeting interventions, forecasting epidemics, monitoring diseases and interventions over time, determining geographical distribution and vaccination of diseases.

Khan et al. (2001)\textsuperscript{23} illustrated a method of planning the geographic distribution of health facilities in order to maximise the social benefits achievable from the investment in Bangladesh costs incurred by households, including the costs associated with maternal morbidity, tend to increase with increasing radius


of a facilities catchments area. The average facility based costs tend to decline with increasing radius due to lower per capita capital expenditure.

Black et al. (2004) developed the methods and models for measuring physical accessibility to health care using several layers of information integrated in a GIS. The results of those methods were used for cost effectiveness analysis, population coverage estimates as well as for resource planning within countries. They also discussed the benefits for better health planning and policy development through the use of those methods before describing potential improvements to the models in the future.

Guagliardo (2004) explained basic concepts and measurements of access, provides some historical background, outlines the major questions concerning geographic accessibility of primary care and described recent developments in GIS and spatial analysis. He presented different measurements of geographical accessibility like provider-to-population ratio, travel impedance to nearest provider, average travel impedance to provider. He has also presented gravity model in measuring health care access.

Levesque (2005) was of the opinion that his study represents the first assessment of access to health care in urban Kerala using the NSSO database. He used multi level logistic regressions (with binomial link function) to use model utilisation (vs. non-utilisation) of health care services among those reporting an illness episode and utilisation of private (vs.public) providers as source of care.

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26 Jean-Frederic Levesque (2005), Deconstructing access to health care in urban south India: Multilevel methodologies to assess the impact of community characteristics on utilization of health services, Working Paper, IGIRD (www.igird.ac.in/whatsnew/csh/Jean-Fredric.doc)
Multinominal regression (with multinominal link function) was used to model source of hospital care using three response categories variable developed. It is said that it is the first multi level assessment of health care utilisation in the Indian context and this method was increasingly used in studies where lower level units are nested into higher units because of sampling design, or because of naturally occurring clustering.

2.2.3 Economic status and Inequality in health care

Mencher (1980)\textsuperscript{27} questioned greater social equity as a factor contributing to fertility decline in Kerala. She suggested that political awareness helped the rural poor attain greater access to health care. According to Mencher, the main reason why the rural poor (agricultural labourers) in Kerala prefer to have fewer children when compared with rest of India is that it is no longer economically advantageous to have children.

Townsend (1990)\textsuperscript{28} criticised the findings of Black Report that for nearly all adult male and female age groups in Britain, inequalities in morality between occupational class groups have widened during recent decades. This article seeks to refute one of the cities, using data published during the 1980's, and goes on to point out that if, as the Black Report also argued, material deprivation is the predominant scientific explanation for inequalities in mortality, then it is widening living standards between classes that we must examine to understand the trend.


Kannan et al. (1991)\textsuperscript{29} conducted a study on rural Kerala regarding the linkage between socio-economic status and health status, based on the data surveyed in 1987. Their study was based on two status groups; one is socio-economic status (SES) and the other is Environmental status (ENS). In their judgment, the high rate of morbidity in Kerala is a manifestation of its continued economic backwardness and the poverty of the masses. This study is criticized on the ground that it completely ignores the occupational structure of the household and give less importance to caste while occupation and caste play an important role in accessing the health care opportunities.

Wagstaff et al. (1991)\textsuperscript{30} offered a critical appraisal of the various methods employed to date to measure inequalities in health. By analysing five inequalities measurement in health, i.e., range, Lorenz curve and Gini coefficient, Pseudo Lorenz curve, index of dissimilarity, the slope and relative indices of inequality and the concentration index, they have found out that the two of them are – the slope index of inequality and the concentration index – were likely an accurate picture of socio economic inequalities in health.

Kutty et al. (1993)\textsuperscript{31} analyse birth and death rates as calculated from sample of 9940 households (57665 persons) with respect to other variables such as region, religion and socio-economic status. In order to study the effect of socio-economic factors on birth and death rates, a socio-economic status rating (SES rating) was developed, taking into account such factors as income, education,


housing conditions and land ownership. SES was found to have a definite influence on birth and death rates, with higher socio-economic status resulting in lower birth and death rates. This effect was independent of such confounding variables as age structure of the population, religion and region. The higher risk of mortality among the poorer households can partly be explained by their material deprivation; the higher birth rates explained by the material deprivation and the higher birth rates could be result of poorer educational attainments.

Reddy and Selvaraju (1994)\textsuperscript{32} estimated the size and composition of health care expenditure by government and examined the trends in health care expenditure. They also presented the inter-state variations in health care expenditure and examined the linkages between plan and non-plan expenditure. Based on a simple regression technique, it had been seen that priorities had little effect on health status barring the fact that curative services had a significant impact on health status and they also found out by using a multiple regression that health expenditure did affect health status but not so significantly.

Ravindran (1996)\textsuperscript{33} attempted to draw attention to the consequences of material and social deprivation on the health of a scheduled caste population through an examination of the health status of the most vulnerable population subgroup, namely children under the age of five years. Environmental factors – both social and physical – are known to play a greater role in child health after the period of infancy, when a baby has been weaned, and was more exposed to sources of infection due to change in food take and greater physical mobility. Her study confirmed the fact that the scheduled caste population, both infant mortality


rates and probability of dying before the age of five are higher than for the general rural population, as indicated by comparable rates for rural Tamil Nadu.

Krieger and Fe (1996)\textsuperscript{34} focussed on the paid from 1900 to 1950 and examine how public health researchers and agencies conceptualised and analysed socio-economic inequalities in health in US. This rich history can help inform current debate about collecting and evaluating data on social inequalities in health.

Borell \textit{et al.} (1999)\textsuperscript{35} described social class inequalities in health status and use of services, both curative and preventive in Barcelona, in a country with a National Health Service. Their findings are sufficient to defend the understanding of equitable health policies especially in providing access to preventive care for the entire population.

Krieger (1999)\textsuperscript{36} reviewed definitions and patterns of discrimination within the United States and evaluates analytic strategies and instruments researchers have developed to study health effects of different kinds of discrimination.

Kunhikannan and Aravindan (2000)\textsuperscript{37} tried to link the socio-economic and the health status of the State and found out that an inverse relationship between the rate of mortality and socio-economic status was noted. The study was an comparison with the KSSP survey done in 1987 and one of the chief objectives of this study was the comparison of morbidity and health expenditure with the 1987

\textsuperscript{34}N. Krieger and E. Fe (1996), Measuring social inequalities in health in US. This rich history can help inform current debates about collecting and evaluating data on social inequalities in health.


findings. The figures for total morbidity in their study and the proportions of acute and chronic diseases highlighted a significant change of the emergence of non-communicable diseases as the important public health problem. The reasons for this phenomena were the changing lifestyle, increasing life expectancy, better access to health care and socio-economic changes. The period under study they saw a pronounced increase in per capita medical expenditure constituting a ‘mediflation’ with the irony that it happened during a period of remarkable decline in morbidity.

Starfield (2001)\textsuperscript{38} presented a working definition of equity in health and health services, a conceptual framework in which to view the various types of influence on health and distribution of health in population.

Dilip (2002)\textsuperscript{39}, using 52\textsuperscript{nd} NSSO Round data, examined the prevalence of ailments and hospitalisation in Kerala. Using multivariate analysis of logistic regression, he found that age and seasonality had considerable effects on the morbidity of individuals and the burden of ill health was higher in rural areas than in urban areas. He opined that people who were more likely to have a better lifestyle had a higher level of morbidity and hospitalisation and factors like physical accessibility of health care services and capacity to seek health care services could create artificial differences in morbidity and hospitalisation among different subgroups of the population in Kerala.

Using 1996 National Sample Survey data, Borah (2006)\textsuperscript{40} found that price and distance to a health facility play significant roles in health care provider choice decision. However, when the health status is poor, distance plays a less


significant role in an adult individual’s provider choice decision. Price elasticity of demand for outpatient care is higher for people in the lower income groups than those in the higher income groups. Moreover, outpatient care for children is more price sensitive than that for adults, which is perhaps reflective of the socio-economic structure of a typical household in rural India where an adult’s health is more important than that of a child for the household’s economic sustenance.

2.2.3 Gender aspects of health care

Fox and Storms (1981) posited that sex is a significant predictor of satisfaction with health care services through its influence is not always consistent.

Nag (1983) attributes the decline in death rates to increased availability of health care and its utilisation, which is made possible by greater female literacy. He also suggested that the greater decline of fertility in Kerala when compared with rest of India is associated with greater equity in education and health rather than in income and assets.

Bhattacharjee (1981) argued that in developed countries, the females have chances of surviving right from childhood to old age. But in India, the females are suffering from relatively bad mortality condition as compared to males and the major possible reason for this is the poor nutrition, housing and sanitary conditions and in adequate medical facilities.

Caldwell (1984)\textsuperscript{44} links mortality decline in Kerala with socio-economic indicators such as women’s education and gives emphasis on decision making power of women.

Singh and Kumar (1988)\textsuperscript{45} found that gender is a weak discrimination between the satisfied and dissatisfied groups.

On the neglect of women, Freeman and Maine (1993)\textsuperscript{46} aptly point out that “a shamefully large number of girls and women die each year because of unique risk inherent in being female in a world where females are second class citizens”.

Gopalakrishna and Mummalaneni (1993)\textsuperscript{47} opined that females are more satisfied than males perhaps because of their different utilisation pattern.

Muntaner and Lynch (1999)\textsuperscript{48} by criticising Nilkinson’s model argued that an emphasis on social cohesion can be used to render communities responsible for their mortality and morbidity rates.

Bajaj (1999)\textsuperscript{49} attempted to study the knowledge and utilisation of MCH services available to women residing in the slums of South Delhi. The findings of the field study based on 500 women selected from five slums in South Delhi indicated low utilisation of the maternal and child health services provided by the


public health care system. An important reason for the non-utilisation of these services may be the lack of knowledge about these services offered by the government which may in turn be attributed to the high level of literacy and lower accessibility of those institutions providing the services. It was shocking to observe that a very large number of deliveries were being conducted at home and continued to be attended by the traditional dais under the most unhygienic condition.

Sivakumar (2000)\(^\text{50}\) found out that there is a rising trend in the age at marriage of women, but a declining trend in fertility. He was the opinion that both the Hindu and Christian women have higher age at marriage and lower fertility than the Muslim women over the birth cohorts and the enhancement of social status of women played an important role in raising the age at marriage of females and ultimately reduces the fertility level of a region.

Sen (2001)\(^\text{51}\) opined that the most immediate adversity caused by a high rate of population growth lies in the loss of freedom that women suffer when they are shackled to a life of persistent bearing and rearing of children. He concludes women’s empowerment and agency are control to an effective resolution of the so called population problem, including its environmental consequences. Gender equity is not only valuable in itself, it also has far-reaching consequences on the lives of all – men, women and children. The expansion of women’s empowerment, through such factors on women’s education and economic independence, has an extensive consequential role in addition to its immediate relevance to gender justice.


Sinha (2001)\textsuperscript{52} was of the opinion that there are indications that the states of the average Indian women is rather low. For example, according to the 1991 Government of India Census, there are 927 females per 1000 males as against 972 females per 1000 in 1901. These figures suggest that women face several constraints. These constrains erode the superiority women enjoy in most societies in terms of longer life expectation.

Kumar (2001)\textsuperscript{53} says that adolescent girls need to be considered as a special target group by schemes and development programmes. They need a package of services/facilities, which will enhance their capacity for advancement and enable them to become capable citizens. Adolescent girls health plays an important role in determining the health of future population, because adolescent health has an intergenerational effect. The cumulative impact of the low health situation of girls is reflected in the higher MMR, the incidence of low birth weight babies, high prenatal mortality and foetal wastage and consequent high fertility rates.

Das (2001)\textsuperscript{54} focused on issues relating to fertility transition and related socio-economic variables. The observed differential in fertility between different states as determined by the cluster-cum-discrinant analysis, by suing district level data, clearly establishes the link between fertility change and social backwardness of women, especially in respect of female education and age at marriage. The economic variables on the other hand, are found to be less important for the existing fertility differential between states. The findings suggest that the threshold of female literacy for a faster fertility dilemma in India is about 43 per


cent; once that level is achieved, fertility rate will decline faster towards the stability of the population.

By using data from the National Family Health Survey, Dilip (2002) found out that a majority of women were found to prefer treatment from the private medical service providers if their children were suffering from fever or cough. Class differentials were severe, with the public sector being the major provider of RCH care services for the poorer sections of the society. People with a higher potential to pay preferred the private sector irrespective of the nature of service they required.

2.2.4 Economic status and inequality of health care

Pauly (1986) opined that tax subsidies to health insurance are a major cause of the behaviour in the medical care industry, behaviour that many feel to be inefficient.

Santana (1987) said that the health care system in Cuba has rightfully taken a share of the credit. Health services have evolved in stages corresponding to changing health needs and population pressures. He examines the reasons for this latest reorganisation of health services and the mechanism that have made it possible.

Kaplan (1996) said while a substantial body of evidence demonstrates a strong association between socio-economic variables and health outcomes, most analysis conceptualise socio-economic status as an individual characteristic. He

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argues for an expanded view that focuses on the relationship between social class and characteristics of the neighbourhood and communities in which people live, and illustrate how these characteristics can provide some new directions for research relating class and health. They indicate that socio-environmental characteristics of individuals, and that personal and socio-environmental risk factors cluster together in areas of low income and high mortality.

Wilkinson (1999)\(^{59}\) suggested that social cohesion is indicative of underlying psychosocial risk factors that are known to be closely associated with health. Given that social status and social affiliation, in terms of population-attributable risks, are among the most powerful influences on population health in the developed world, that is a potentially potent mixture for health.

George et al. (1993)\(^{60}\) tried to estimate the expenditure of households on health as a proportion of total consumption expenditure in the study related to the household health expenditure in Madhya Pradesh and find that the acute prevalence rate was 162.16/1000, and the chronic prevalence rate 128.33/1000. Acute morbidity was found to be high in the urban areas, whereas chronic and handicapped morbidity was high in the rural areas. It seemed to indicate that the definition of morbidity was influenced by the seriousness of illness and the accessibility to health facilities.

Sodani and Gupta (2001)\(^{61}\) provided insight into the healthcare expenditure and utilisation to elicit information on patterns of household expenditure on government and private sources of treatment in both rural and urban segments of

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the tribal areas of Rajasthan. Their study reveals that a high dependence (50%) on
the traditional practitioners in the rural areas and also reveals that rural people have
significantly higher burden of almost all components of indirect expenses for
treatment.

Siddiqui and Hertzman (2001) argued that the ‘Tiger’ economies of
Southeast Asia provide examples of developing nations where economic growth
and increasing income equality are competitive and when occurring together, are
associated with superior health trends over time.

2.2.5 Policy aspects of health care

Panikar (1979) found out that Kerala’s achievement in the health field
became all the more significant and relevant to low income countries when viewed
against the facts that the level of per capita income, per capita expenditure on
health and medical infrastructure measures in terms of bed-population ratio,
doctor-population ratio, etc. were actually lower in Kerala than in some of the
other states. The reasons for the better health status of Kerala lies in the state
having given equal importance to preventive and promotive measures like
sanitation, hygiene, immunisation programmes, infant and ante-natal care, health
education, etc, as to curative medicine. Moreover, the spread of education,
especially among women in the rural parts of Kerala, was a crucial factor
contributing to the high degree of awareness of health problems and fuller
utilisation of available health care facilities.

63 P.G.K. Panikar (1979). “Resources not the constraint on health improvement: A case study
of Kerala”, Economic and Political Weekly, November 3.
Raju (1989)\textsuperscript{64} referred to the concept of Primary Health Care, evolved at Alma Ata Conference in 1978 and suggests that conducting of comprehensive evaluation studies is quite necessary in order to assess the performance of the ‘Health for all by 2000 AD’ Programme after completion of the first decade of it. The author also feels the need for coordination between government and non-government health sectors, so that the fruits of health care programme may reach all and sundry in the country.

Soman et al. (1990)\textsuperscript{65} have conducted a study of two areas in Thiruvananthapuram city and found out the high morbidity with common symptoms predominating in under 3 children, with a significant gradient between the slum area and socio-economically better area. They have found that policies in respect of certain non-health sectors did have a positive impact on the health status.

Franke et al. (1993)\textsuperscript{66} identified several roles for the public sector including acceptable and accessible health care to the population that is not covered by the private health services especially in the poor rural areas where about 70 per cent of all African live and ensuring standard of care that is compatible with the resources available and provides a balanced system of preventive, promotive, curative and rehabilitative care.

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Kabir and Krishnan (1996)\textsuperscript{67} analysed the historical evolution of Kerala’s health transformation, apart from reinforcing the known findings, has demonstrated how important were social policies and programmes, without which the health transition would not have taken place. They were of the opinion that the Kerala experience also demonstrated that demand creation and ‘right to access’ are as important as the expansion in health care for health transition. According to them, the expansion of public activities and measures will not only be a most cost-effective health measure in the long run, but would also go a long way as an anti-poverty measure.

Hammer (1997)\textsuperscript{68} said that a health project evaluation should establish a firm jurisdiction for public involvement; establish the counterfactual – what would happen with and without the project; and determine the fiscal effect of the project and the appropriate levels of fees in conjunction with project evaluation.

Countries especially developing countries can significantly improve the health care means by setting the existing conditions. Misra (1999)\textsuperscript{69} stressed the need for voluntarism in health and family planning practices that are culture compatible and sensitive to the ground realities of the specific localities and through community-accepted change agents. According to various case studies, he said that the main reason for the low utilisation of health and family welfare measures is the complete reliance on the traditional system, coupled with ignorance of and inaccessibility to the formal system. He also makes a strong case for voluntarism in effecting social changes in health and family welfare. But


in the light of public outbursts in some parts of the country against certain voluntary agencies, this needs to be reconsidered.

Nayar (2001)\textsuperscript{70} considered the implementation of people's planning has been considered as a panacea for overcoming the collapse of the health service system and to counter the new agenda in public health.

Sebastian (2001)\textsuperscript{71} was of the opinion that withdrawal of subsidies and credit facilities as part of Structural Adjustment Programmes have further affected the food production levels and therefore nutritional standards of households in the regions have suffered.

Navarro and Shi (2001)\textsuperscript{72} tried to reflect the importance of political parties and the policies they implement in determining the level of equalities/inequalities in a society, the extent of the welfare state (including the level of health care coverage by the state) the employment/unemployment rate and the level of population health. The study looks at the impact of the major political tradition in the advanced OECD countries during the golden years of capitalism. The results indicate that political traditions more committed to redistributive policies (both economic and social) and full employment policies such as the social democratic parities, were generally more successful in improving the health of population. the world today.


Wikramasinghe (2001)\textsuperscript{73} opines the major criticism of the liberalised economic regime is that it tends to make the poor and the disadvantaged economically weaker. One way of strengthening these groups is by introducing a compulsory national health scheme and makes these groups part of the system by the state bearing the burden of payment of premium of these groups and this system will keep those groups within the main stream without distorting the system.

Yang et al. (2001)\textsuperscript{74} showed that the health care consumption of Korean households has been adversely affected by the recent economic crisis as measured by the amount of expenditure on health. Analysis show that for all households, the rate of expenditure decrease in relatively higher for drug expenditure than for expenditure on medical services. That is, facing delivering income, people cut their spending in area where the need is non-essential or less inevitable.

Sankar (2001)\textsuperscript{75} opined that the integration of conventional, non-conventional and traditional systems of medicine facilitates better access to health care. But the lack of government initiative promoted private action in their provision, which could make them more costlier. She advocated that with careful planning and collaboration among different levels of the health sector, a partnership can be built which in response to public demand, creates a pluralistic health care environment based on quality in health care and on the provision of services which complement one another.


Kutty (2001) opined that the proposition that there cannot be expansion in public spending in health was not necessarily correct and the planned remedies such as user charges, will undermine the very foundation of the health care network in Kerala, which is based on a premise of universal access and further he advocated alternative policy instruments which can lead to greater resource mobilisation as well as efficiency in resource use in health.

By using a detailed review of Kerala’s health status, Michael and Singh (2003) argued the rapid improvements that have occurred simultaneously in public education are more likely to example an increase in the effective reporting of disease conditions. Their study underlined the link between achieving a sustained enhancement in health promotion and the coincidence of community support.

Varatharajan et al. (2004) brought out the importance of decentralisation of health care sector and said that Kerala’s government health care system functioned relatively well compared with other Indian states, but utilisation levels are decreasing due to lack of essential facilities. The opportunity cost of seeking medical care from the government sector was high, even for the poor. The authors argued that decentralisation brought no significant change to the health sector, but wherever the active panchayat support was given, the result was positive.

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Gupta (2005)\textsuperscript{79} said that the poor pay a high price in terms of debility, reduced earning capacity, health expenditures and death. The rich suffer little mortality from communicable diseases, but nevertheless suffer repeated episodes of morbidity which are reflected in high rates of stunting amongst their children. In India, public policies and programmes have focused largely on the provision of curative care and personal prophylactic interventions such as immunisation, while public health activities have been relatively neglected.

Levesque (2005)\textsuperscript{80} was of the opinion that his study represents the first assessment of access to health care in urban Kerala using the NSSO database. He used multi level logistic regressions (with binomial link function) to use model utilisation (vs. non-utilisation) of health care services among those reporting an illness episode and utilisation of private (vs.public) providers as source of care. Multinominal regression (with multinominal link function) was used to model source of hospital care using three response categories variable developed. It is said that it is the first multi level assessment of health care utilisation in the Indian context and this method was increasingly used in studies where lower level units are nested into higher units because of sampling design, or because of naturally occurring clustering.

Sankaranarayanan (2005)\textsuperscript{81} opined that contaminated water supply, polluted environment, water logging, lack of cleanliness in public places and other related issues are not properly addressed and effective remedial action is lacking in

\textsuperscript{79} Monica Das Gupta (2005), “Public health in India: Dangerous Neglect”, \textit{Economic and Political Weekly}, XL (49).

\textsuperscript{80} Jean-Frederic Levesque (2005), \textit{Deconstructing access to health care in urban south India: Multilevel methodologies to assess the impact of community characteristics on utilization of health services}, Working Paper, IGIRD (www.igird.ac.in/whatsnew/csh/Jean-Fredric.doc)

all these areas in Kerala. Though the proportion of population in the state with access to protected water supply has been increasing, a substantial portion of the population remains to be covered. Government hospitals charges have become beyond the reach of common man. Patients are charged on several counts such as nursing charges, treatment charges, service charges and professional charges apart from medicines. The net result has been the exclusion of the marginalized and vulnerable sections of the community from enjoying medical care facilities. This is expected to produce irreparable damages in health care system of the state

Levesque et al. (2006)\textsuperscript{82} confirmed high utilisation of private outpatient care in Kerala and suggested problems of access for the poorest. Using multilevel analysis of individual and urban characteristics from the NSSO 1995-96 survey data, they found that there was a high level of utilisation (83.6\%) of allopathic medical services and controlling for illness severity and age, utilisation thereof was lower for the very poor, inhabitants of medium towns and inhabitants of cities with a lower proportion of permanent material houses. Their study pointed to the need for continuing improvements and development of public health systems in urban areas of developing countries, especially in medium-sized towns, as a means to promote equity.

Navaneetham et al. (2006)\textsuperscript{83} attempted to study the patterns and determinants of morbidity in Kerala. Based on the survey data of 3320 households from three districts from Kerala, they found out that greater risk of ill health among illiterates and among the poor, which was an indicative that high level of morbidity was more real. The prevalence of communicable diseases had been

\textsuperscript{82} Jean-Frederic Levesque, Slim Haddad, Delampady Narayana and Pierre Fournier (2006), "Outpatient care utilization in urban Kerala, India", Oxford University Press and The London School of Hygiene and Tropical medicine.

lowered and non-communicable diseases dominated the morbidity profile in Kerala. They opined that most of the diseases warranted constant medical attention and treatment and sustained medical treatment is beyond the wherewithal of the average household. The private health care system cannot be an answer because of the high average cost of treatment.

2.2.6 Infrastructure facilities and health care

Mathew (1979)\textsuperscript{84} considered the factors such as the neglect of health promotion and of disease prevention, disinterest in the rural areas and common people, concentration of facilities in urban areas, excessive dependence on hospital and costly facilities, catering mainly for the privileged, lack of health education orientation towards disease, obsession with specialisation, apathy and indifference, vested interests, reluctance to change, redtapism, which were the main defects of Kerala’s health care system.

Rao and Veerasekharappa (1989)\textsuperscript{85} stated that providing safe drinking water to the rural masses is of paramount importance because this is a basic minimum need for improvement in the living standard of the rural people.

Murray and Chen (1990)\textsuperscript{86} strengthened the case of viewing morbidity largely in terms of self-perception by carrying out cross-country comparisons that yield counterintuitive results. In a comparison between Kerala and the United States, the latter has an even higher morbidity rate than Kerala, leading apparently absurd conclusion that Americans suffer a higher illness burden than Indians or even Keralites.

\textsuperscript{84} K.J. Mathew (1979). “Health care in Kerala”, Social Scientist, 8 (3).
Shatrugna (1994)\textsuperscript{87} opined that the health care system will have to reach out and get involved in understanding the social ramification of a disease.

Nagaraj and Prasad (1994)\textsuperscript{88} analysed the influence of socio-demographic factors like maternal age, maternal education, maternal occupation, caste, number of living children, and distance of medical facility on utilisation of ante-natal care services.

Behrman (1996)\textsuperscript{89} said that child health and nutrition are strongly associated with educational achievement. But association do not necessarily indicate causality; estimates generally are likely to be biased in one direction or the other.

Narayana and Kurup (2000)\textsuperscript{90} discussed about the inequality in accessing the health care. They say that there is a striking regional dimension to the unequal distribution of hospital beds. The inequality in the distribution of hospitals would affect the access to a certain minimum level of secondary health care services. As regards secondary care, the concentration of hospitals and unequal distribution of hospitals across the \textit{taluks} of the state is a given reality to be properly accounted for.

\section*{2.2.7 Education and health care}

Kumar (1993)\textsuperscript{91} found out the reasons for the higher morbidity in Kerala due to the highly literate population that has access to an extensive health

\begin{itemize}
\item \textsuperscript{87}V. Shatrugna (1994). "Women and health", \textit{The Indian Journal of Social Sciences}, 7(3,4).
\item \textsuperscript{89} J.R. Behrman (1996). "The impact of health and nutrition on education", \textit{Research Observer}, 11(1).
\end{itemize}
infrastructure. The availability of medical services by itself could have an impact on perceptions of illness. Kerala’s experience may simply reflect greater popular awareness of and sensitivity to the concept of freedom from illness, given the state’s higher level of education and greater access to and use of modern health care facilities.

Nagaraj and Prasad (1994)\(^2\) analysed the influence of socio-demographic factors like maternal age, maternal education, maternal occupation, caste, number of living children, and distance of medical facility on utilisation of ante-natal care services.

Sharma and Chahal (1995)\(^3\) found that the low degree of patient satisfaction was significantly related to all factors hypothesised to be important – doctors, nurses, medical assistants, management, sanitation and cleanliness and other medical facilities. The highly educated class is least satisfied with outpatient and inpatient services. Female outpatients are more satisfied as compared to male outpatients.

Behrman (1996)\(^4\) said that child health and nutrition are strongly associated with educational achievement. But association do not necessarily indicate causality; estimates generally are likely to be biased in one direction or the other.

Ramachandran (1996)\(^5\) argued literacy, political awareness and political action through political parties and mass organisations were crucial for better

health conditions because they helped make people sensitive to their rights and to the duties of the State to its citizens. People demanded more health facilities in Kerala than in the rest of India and they utilized them better.

Homan and Thankappan (1999)\textsuperscript{96} provided a description of the structure of the health care sector in Trivandrum district of Kerala state, examine patients' perception of quality, factors affecting choice of provider and evaluate the financial burden of care and conclude with a description of the challenges facing the public sector health delivery system and identify some potential responses to these challenges.

Panikar (1999)\textsuperscript{97} said that the morbidity pattern of Kerala is a mixed one with the existence of dominant disease group comprises acute infectious diseases and the emergence of chronic diseases and he opined the reasons for the high morbidity in Kerala are the spread of education, especially female education and of medical care facilities have emerged as the most important.

2.2.8 Caste/Religion/Race and health care

Balasubramanian (1984)\textsuperscript{98} said that religious affiliations have been found to have a significant bearing as fertility by various background variables.

Williams (1996)\textsuperscript{99} considered the ways in which race/ethnicity and socio-economic status (SES) relate to each other and combine to affect racial variations

\textsuperscript{96} K. Rick Homan and K.R. Thankappan (1999). An Examination of Public and Private Sector Sources of Inpatient Care in Trivandrum District, Kerala (India), Achuta Menon Centre for Health Services, Thiruvananthapuram.


in health status. He reviews a number of methodological issues concerning the assessment of race in United States that importantly affect the quality of the available data on racial differences in health.

Muntaner et al. (2001) examined the nature of attributions for racial inequalities in health among university standards among who by definition are likely to be involved in research, policy and service profession (the upper middle class). Results suggests that contemporary middle class whites' ‘self-serving’ explanations for racial inequalities in health are comprised of two beliefs; implicit biologism (race is an attribute of organisms rather than a social relation) and liberal belief in self determination, choice and individual responsibility – sine of the core lay beliefs of the world view that sustains neo-liberal capitalism.

Shi et al. (2001) examined the disparities in health status among individuals of different racial and ethnic groups cared for by the nation’s Community Health Centres (CHCs) and compared these results with the findings for individuals using non-CHC sites as their usual source of care.

2.2.9 Socio-economic status and health care

Phadke et al. (1995) found that the drug supply to the public sector in Satara District was a mere Rs. 5.6 million, as compared to the most minimum, reliable estimate of a drug sale of Rs. 212.8 m in the private sector during 1991-92. The drug supply especially to PHCs and RHs suffers from chronic gross shortages and haphazardness. The overall quality of prescriptions of doctors both

in public and private sector was low. There was a very high proportion of use of unnecessary, irrational, hazardous drugs and injections especially in the private sector. Public Sector prescriptions were more rational than private sector prescriptions.

Alderman and Lavy (1996)\textsuperscript{103} described the types of services for which households indicate they are willing to pay increased fees. They also indicate the potential gains from improving these services, as well as the consequences of moving faster on cost recovery than on providing improved or better targeted services.

Desai (1997)\textsuperscript{104} primarily focused on problems faced by people from low income families, their relationship with the family environment and its influence on health perception and behaviour.

Iyer (1997)\textsuperscript{105} examined the relationship between demographic, socio-economic, cultural factors and prevalence of malaria, and relationship between certain vector factors and finds that Malaria was prevalent among the most illiterate. It was also more prevalent among those living in thatched/sheet houses.

Singh and Rahman (1998)\textsuperscript{106} provided a coherent assessment of the housing conditions and the health status on the life of the poor households. They say that there is acute shortage of housing in Aligarh city both quantitatively and qualitatively. The poor household environmental condition existing in the very


low, low and medium income households is mainly responsible for the frequent occurrence of the environmental related diseases.

Stewart (2001)\textsuperscript{107} examined the impact of health status on the duration of unemployment spells and finds that individuals with impaired health will have significantly longer unemployment spells. These longer unemployment spells will result in the stock of unemployed being composed of a larger proportion of individuals with impaired health than the stock of employed.

Gao et al. (2001)\textsuperscript{108} said that access to health care by the urban population in China has become inequitable and one of the most pressing concern is that those who have lost jobs have increasing difficulties in health care.

2.3 Theoretical framework

By considering the health behavioural model, empowerment theory, health belief model and equity access model and the detailed review of literature we have formulated the analytical framework on the basis of the conceptual discussion, objectives and methodology, which is shown in Fig.4.4.


2.4 Conclusion

In this chapter, we have discussed theoretical models, reviewed empirical studies and developed a framework for analysis in the study. In chapters to follow, we have made detailed analysis especially the determinants and disparities of health care accessibility.