CHAPTER 2

REVIEW OF LITERATURE

“The First wealth is health.”
~ Ralph Waldo Emerson

2.1 Introduction
This review of literature provides a background of the economic aspects of health and health care along with its role in development. The endeavor has been to explore the various studies conducted, relating to health status in the previous years, to study the determinants of health, the utilization of health care services, as well as to study the pattern of health expenditure and its financing etc. in order to understand the problem in a much wider perspective. Therefore, this chapter is devoted for an analysis of literature available on different aspects of public health care, public health policy with reference to Mumbai and India.

Section 2.2 in the chapter discusses about health and health economics; section 2.3 gives a picture about the significance of health economics; section 2.4 elucidates good health as a fundamental right and its significance; section 2.5 takes a brief look at conceptual models on health section; 2.6 deals with the health policy and health financing expenditure; section 2.7 studies public health and its relationship with economic growth; section 2.8 delves into the Indian public health care system and the status of public health in India; section 2.9 dwells on the health status in Maharashtra and Mumbai; section 2.10 discusses literature related to the challenges faced by the Indian public health care sector; and finally, section 2.11 explores the strategies to meet the challenges in the Indian public health care sector and section 2.12 presents the conclusion.

Health sector is one of the essential sectors of an economy and has been the focus for numerous researches. A number of studies have been conducted on the different aspects of health and health care, and the economic implications of these factors have been extensively researched. The purpose of this review is to provide a comprehensive overview of the existing literature on health and health economics in India, with a particular focus on Mumbai and Maharashtra. By understanding the determinants of health and the utilization of health care services, we can identify the factors that contribute to health status and the challenges faced by the health care sector. The analysis of literature available on different aspects of public health care, public health policy, and health financing expenditure provides valuable insights into the economic implications of health care in India. This chapter is devoted to analyzing the literature available on different aspects of public health care, public health policy, and health financing expenditure in India, with a particular focus on Mumbai and Maharashtra. Section 2.2 discusses the relationship between health and health economics, while section 2.3 provides an overview of the significance of health economics. Section 2.4 elucidates the concept of good health as a fundamental right and its significance. Section 2.5 offers a brief look at conceptual models on health, while section 2.6 delves into the health policy and health financing expenditure. Section 2.7 studies the relationship between public health and economic growth, while section 2.8 explores the Indian public health care system and the status of public health in India. Section 2.9 dwells on the health status in Maharashtra and Mumbai, and section 2.10 discusses literature related to the challenges faced by the Indian public health care sector. Finally, section 2.11 explores the strategies to meet the challenges in the Indian public health care sector, while section 2.12 presents the conclusion.
aspects of health services, its related areas and its impact on economic development of the nation. Health is a fundamental human right. Health care, as a right of every individual, has been recognized in many countries. Health is one of the most vital objectives of development – ‘development’ does not mean just economic growth, it is the achievement of human potential and satisfaction of basic human needs.

The economics of health has emerged as an important branch of economics. It has now received adequate attention from researchers in social sciences because it deals with economic facets of health as well as illness and the socio-economic functions of health institutions and organizations besides studying the economic behavior of health care providers and those people who are consumers of health care.

The issues mentioned earlier are especially more relevant in the Indian context, where a large population is seeking and expecting better health care services from limited health care resources and facilities. Therefore, the purpose of this chapter is to provide a background of the economic aspects of health and health care along with its contribution to development. An attempt has been made here to piece together various studies conducted relating to health status, its determinants, utilization of health care services, health expenditure and its financing etc. in order to view the problem in a wider perspective.

2.2 Health and Health Economics

“Health is not everything in life. But life is nothing without health.”\(^{26}\) Health is perceived in different ways thus, giving rise to various concepts of health. The concept and definition of health is not easy, as it is a multi-layered, multifaceted complex phenomenon. Over the centuries, it has evolved as a concept, from a personal concern to a global, social goal and it encompasses the whole quality of life. Health is viewed differently by people all over the world.

The most generally accepted definition of health is one given by the WHO (1978) in the preamble to its constitution which is as follows: “Health is a state of complete

physical, mental and social well-being and not merely an absence of disease or infirmity.”\(^{27}\) The concept of health goes beyond illness; it also includes its prevention and cure. In recent years, this definition of health has been modified to include the ability to a “socially and economically productive life.” (HFA-1978)

Goel (1984), states that “Health is a condition under which an individual is able to mobilize all his resources, intellectual, emotional and physical, for optimum living.”\(^{28}\)

Thus, this definition highlights the fact that health is not static. On the contrary, it is dynamic and often fluctuates on a scale which ranges between optimum health as defined by WHO to complete lack of health or ill-health.

Traditionally, health has been considered as an absence of the diseases and if someone was free from disease, then that person was considered healthy. This concept is known as ‘biomedical concept’. The WHO’s 1986 *Ottawa Charter for Health Promotion* further stated that, “health is not just a state, but also a resource for everyday life, not the objective of living. Health is a positive concept emphasizing social and personal resources, as well as physical capacities”.\(^{29}\) In other words, health is not just a bio-medical phenomenon, but one which is influenced by a number of social, psychological, cultural, economic and political factors. These factors must be considered in defining and measuring health. Thus, health is both a biological and social phenomena.

Health Economics is a branch of economics concerned with issues related to efficiency, effectiveness, value and behavior in the production and consumption of health and health care. It is described as a social system that studies the supply and demand of health care resources and the impact of health services on a population.

Health Economics is defined as the use of the theories, concepts, and techniques of economics to the health sector. It is thus concerned with such matters, as the

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\(^{29}\) World Health Organization. The Ottawa charter for health promotion. Retrieved February 15, 2016, from World Health Organization.

http://www.who.int/healthpromotion/conferences/previous/ottawa/en/
allocation of funds to various health-promoting activities; the magnitude of resources used for health service delivery; the organization and the funding of health service institutions; as well as monitoring the efficiency with which resources are allocated and used for health purposes; and also the effects of preventive, curative, and rehabilitative health services on individuals and society.

Lee and Mills\(^\text{30}\) (2008) believe that all citizens share an interest in health and health care, and it is in the national interest that the resources available for health should be spent effectively. According to the authors, ‘health economics’ can be broadly defined as the application of the theories, concepts, and techniques of economics to the health care sector. It looks at the allocation of scarce resources between various health-promoting activities; the quantity of these resources used in health service delivery along with the organization of health service institutions to ensure efficiency in the resources allocation to have a positive impact on individuals and society.

2.3 Significance of Health Economics

“Health is wealth” is a popular adage in almost every family the world over. Ironically, though it is a fact that ‘it is the wealth that often determines the health’ of most people; without wealth, access to health care remains merely an illusion.

Health Economics today is considered to an be important part of economics and has been receiving a lot interest from social science researchers, who wish to study the economic facets of health and illness along with the socio-economic functions of health institutions and organizations while also studying the economic behavior of health care providers and people who form the consumers of health care. These issues have assumed an increasing relevance in the Indian context, with the perceived gap between the rising demand and limited supply of health care facilities. Health economics assumes even more importance, as developing nations with large populations are seeking and expecting the better health care services from limited health care resources.

2.4 Good Health: Fundamental Right and its Significance

Good health has a functional relationship with various variables like nourishing food, pollution-free environment, safe drinking water, opportunity for work and leisure, hereditary endowment, use and access of health services etc. The preamble to the Constitution of the World Health Organization (WHO), states that “the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition.”

The International Instruments, which recognizes right to health, are Universal Declaration of Human Rights, International Covenant on Economic, Social and Cultural Rights, and Constitution of the World Health Organization, 1946. Under Article 25 of Universal Declaration of Human Rights, the importance of health as a fundamental right is clearly brought out.

India pledged along with other WHO member nations, 'Health for All by the Year 2000' at Alma-Ata in 1978; and in the same year signed the International Covenant for Economic, Social and Cultural Rights, in which the State is obliged to achieve the highest attainable standard of health. Mathiharan (2003) emphasizes that the Indian Constitution incorporates provisions guaranteeing every citizen the right to the highest attainable standard of physical and mental health. Article 21 of the Indian Constitution promises protection of life and personal liberty to every citizen. The Supreme Court has held that the right to live with human dignity, which is derived from the directive principles of state policy and therefore includes protection of health. It also assures civil liberties to enable that all Indians can lead their lives in peace and harmony as citizens of India.

Health care is one of a vital aspect of the public policy of welfare states in the world. Health has been man's greatest possessions of life and his source of real happiness. In

terms of resources for socio-economic development, nothing can be considered of higher significance than the health of the people. An investment in health is always an investment on human resource development as it encourages and results in the development of a region and a nation.

The World Development Report\textsuperscript{34} (1993) stresses that good health as a vital to human well-being and has strongly justified health spending on purely economic grounds. According to the Report, improved health contributes to economic growth by reducing production losses caused by workers’ illness, it also permits the use of natural resources that had been totally or nearly inaccessible due to disease, it can also increases the enrolment of children in schools and makes them capable of learning; and finally, it brings about alternative uses of resources that would otherwise be spent on medical care and treatment. In fact, the economic gains are relatively greater for poor people, who typically suffer most from ill health and who stand to gain the most from the development of underutilized natural resources.

Bloom et al.\textsuperscript{35} (2001), in their study reveal that macro-economists recognize the potential of human capital towards economic growth, but their empirical studies define human capital solely in terms of education. The authors in their paper consider two additional variables that many micro-economists have acknowledged as essential components of human capital: work experience and health. Their study reveals show that good health has a statistically significant impact on the aggregate output and empirical results of the study suggest that a one-year improvement in a population's life expectancy contributes to an increase of 4 per cent in output. As this is a relatively large effect and shows that increased expenditures incurred on improving health can be justified wholly on the grounds of their impact on labor productivity. The authors also found that the effects of average schooling on national output are consistent with microeconomic estimates of the effects of individual education on earnings, suggesting that education creates no perceptible externalities.


2.5 Conceptual Models on Health

Human behavior plays a pivotal role in the preservation of health, and also in the prevention of diseases. Health professionals therefore, have introduced various models of behavior changes to guide and reduce behaviors that increase health risk and also to facilitate effective adaptation to and coping with illness. Models of health behavior have been developed to promote health; to also to guide strategies in developing protective actions and the different models of population health show the various factors that influence health.

Over the past many decades, several health models have been developed to show the mechanisms by which Social Determinants of Health (SDH) affect health outcomes, to build precise linkages among different types of health determinants and to make strategic points for policy action. Some of the pertinent and influential health models are discussed below.

Health Belief Model

One of the earliest theoretical models developed for understanding health behavior was the Health Belief Model\(^{36}\) (HBM) by social psychologists Hochbaum, Rosenstock and Kegels of U.S. Public Health Services, in 1958.

The model was developed in response to the failure of a free tuberculosis (TB) health screening program. The HBM is derived from psychological and behavioral theory with the basis that the two components of health-related behavior are as follows:

1) the desire to avoid illness, or conversely get well if already ill; and,

2) the belief that a specific health action will prevent, or cure, illness. The authors emphasize that ultimately, an individual's course of action often depends on the person's perceptions of the benefits and barriers related to health behavior.

The pictorial depiction of the Health Belief Model is shown below:

**FIGURE 2.1**
**HEALTH BELIEF MODEL**


**Andersen's Model of Health Care Utilization**

Andersen Behavioral Model of Health Services Utilization\(^{37}\) (1968) is a theoretical model aimed at demonstrating the factors that eventually lead to the use of health services. An individual's access to and usage of health services is influenced by of three vital factors:

1) **Predisposing Factors:** The first set of factors refer to socio-cultural characteristics of individuals that exist prior to their illness like education, occupation, social networks, culture, attitudes, and knowledge that people have concerning the health care system along with age and gender these factors influence their health care services utilization.

2) **Enabling Factors:** The second set of factors refer to logistical aspects of obtaining care like means and know-how to access health services, income-level, health insurance, a regular source of care, availability of health personnel and facilities, waiting time and also other genetic factors and psychological characteristics.

3) **Need Factors:** The last set of factors is the most immediate cause of health service use, from functional and health problems that generate the need for health care services. ‘Perceived need’ will help better to understand care-seeking and adherence to a medical schedule, where as ‘evaluated need’ will be more closely related to the kind and duration of treatment that will be provided after a patient has presented himself/herself to a medical care provider.

**FIGURE 2.2**
**ANDERSEN’S MODEL OF HEALTH CARE UTILIZATION**


Thus, according to this model the utilization of health services (including inpatient care, physician visits, dental care etc.) is determined by three dynamics: predisposing factors, enabling factors, and need.

**Grossman’s Concept of Health Capital and the Demand for Health**

Grossman Health Capital model\(^\text{38}\) (1972) considers each human being as both, a producer and a consumer of health. Health is treated as ‘a stock’ which depreciates over a period of time due to the absence of adequate “investments” in health, and hence, health is also viewed as a sort of ‘capital’. The model considers health to be both a ‘consumption product’ that yields direct satisfaction and utility, and an ‘investment product’, which yields satisfaction to consumers indirectly through increased productivity, lesser sick days, and higher wages. Investment in health is expensive as consumers must make trade-off between time and resources dedicated to

health, against other goals. These factors are taken to establish the optimal level of health that a person will demand and also makes forecasts regarding the impact of the consequences of variations in prices of health care and other goods, labour market outcomes such as employment, wages, and technological changes.

This model’s main proposition assumes that individuals inherit an initial stock of health that depreciates with age and can be raised by investment. The model shows that the “shadow price” of health depends on many other variables besides the price of medical care. The shadow price rises with age, if the rate of depreciation on the stock of health rises over the life cycle and falls with education, if more educated people are more efficient producers of health.

**Social Model of Health – Dahlgren & Whitehead**

One model, which captures the interrelationships between these factors is the Dahlgren and Whitehead’s 39 (1991) 'Policy Rainbow', which describes the layers of influence on an individual's potential for health. Whitehead states that while health differences are unavoidable and may vary from country to country and from time to time, but in a general sense the seven main determinants of health differentials can be identified as follows:

1. Natural and biological fluctuations
2. Health-damaging behavior, if freely chosen
3. The temporary health benefit of one faction over another, when that faction is first to take up a health-promoting behavior (as long as other factions have the resources to catch up fairly soon).
4. Health-injurious behavior, where the degree of choice of lifestyles is severely limited.
5. Exposure to unhealthful, worrying living and working conditions.
6. Inadequate access to essential health and other public services.
7. Natural choice or health-related social mobility involving the tendency for sick people to move down the social scale.

Individuals form the pivot with a set of predetermined genes with various layers of influences of health around them. The primary layer is ‘personal behavior’ and ‘ways of living’ that can promote or damage health. These are also affected by ‘social relationships’ and the ‘norms of their community’. The next layer is ‘social and community influences’, which offer mutual support for members of the society in adverse conditions, but they can also refuse support or have a negative effect. The third layer includes structural factors like housing, working conditions, access to services and provision of necessary facilities etc.

**FIGURE 2.3**

**SOCIAL MODEL OF HEALTH/RAINBOW MODEL BY DAHLGREN AND WHITEHEAD**

![Social Model of Health/Rainbow Model by Dahlgren and Whitehead](image)

*Source: Dahlgren and Whitehead, 1991*

This model is particularly applicable in providing a framework for raising queries about the size of the contribution of each of the layers to health, to discover the relative influence of these determinants on different health outcomes, the feasibility of varying specific factors to influence linked factors in other layers.

**WHO Commission on Social Determinants of Health Model (2008)**

The WHO Commission on the Social Determinants of Health proposed an overall theoretical framework for the social determinants of health and draws significantly from the contributions of many prior researches. The Commission’s recommendations are entrenched in an analytical underlying causal framework that is based on the intersection of the three sets of social dynamic conditions of daily life. The first set refers to the conditions of daily life in which a person is born, grows, lives, works, and ages, to decide their incidence of disease, morbidity, and natural life. The second set refers to the proximal determinants, such as exposure to injurious substances and
biological organisms, the availability of material needs such as food, drinkable water, and shelter, and the social surroundings and health-related behaviors. The third refers to these daily conditions or “causes of causes” which include the economic, social, and political conditions that culminate jointly with background of social and cultural norms to create and allocate the proximate causes across individuals and social groups.

FIGURE 2.4
WHO COMMISSION ON SOCIAL DETERMINANTS OF HEALTH MODEL

![Diagram of social determinants of health model](http://www.who.int/sdhconference/resources/ConceptualframeworkforactiononSDH_eng.pdf)

**Source:** WHO (2008): A Conceptual Framework For Action on the Social Determinants of Health

The CSDH model (2008)\(^4\) is summarized in the previous figure and shows the impact of social, economic and political means that produces a set of socio-economic positions, under which populations are graded according to income, education, occupation, gender, ethnicity etc.; and these socio-economic positions in turn form precise determinants of health status reflective of people’s position within social hierarchies. These positions are based on the respective social status that people experience, differences in exposure and vulnerability to health-compromising conditions. Ill-health can act as a “feedback” on a given person’s social position, e.g. by compromising job opportunities and thereby reducing income; certain epidemic

diseases can also act as “feedback” by affecting the functioning of social, economic and political organizations.

2.6 Health Policy and Health Financing Expenditure

A health policy is defined as the “decisions, plans, and actions that are undertaken to achieve specific health care goals within a society”. According to World Health Organization,\(^{41}\) the health policy of a nation refers to decisions, plans, and actions that are undertaken to reach explicit health care goals within a society. A specific health policy can help to achieve several things: it gives a definition of a vision for the future, which in turn helps to set up targets and points of reference for the short and medium term. It also brings out priorities and the expected roles of different groups; as well as it builds consensus and informs people. In other words, health policies define the future goals and priorities by planning with the existing resources. According to the World Health Organization, an explicit health policy can achieve several things: it defines a vision for the future; outlines priorities and the expected roles of different groups; and also builds consensus and informs people.\(^{42}\)

National health policies, strategies, and plans play a vital role in describing a country's vision, priorities, budgetary decisions and course of action for improving and maintaining the health of the nation. Most countries have been using the development of national health policies, strategies, and plans for decades to give direction and coherence to their efforts to improve health. Public Health Policy has a profound impact on the health status of a nation.

Doss\(^{43}\) (2008) believes that good health is considered to be a pre-requisite for economic development and social welfare. Good health not only promotes high morale and labour productivity but also produces a positive environment of economic growth. It is believed that not only good health is an important factor for the provision of regular supply of labour, it prevents the disruptions caused by sickness and the resulting absenteeism. A healthy society is in fact an important factor in the building

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\(^{42}\) Ibid.

of a strong, successful nation. An unhealthy population can have serious economic and related implications on the future development and growth of a society. The health of a society plays a significant role in formulating the public policy, as it requires deployment of huge public funds. Health is influenced by a number of factors such as adequate food, housing, sanitation, healthy lifestyles, protection against environmental hazards and communicable diseases. It is generally believed that the two principal benefits of investment in health care are (i) longevity and (ii) improvement in the physical and mental development of people and provision of health care facilities.

According to Krishnamurthy\textsuperscript{44} (2008), it is necessary to envelope several socio-economic indicators in explaining strategies for developing and widening parameters of health. Health parameters should have a positive connectivity with ‘Reprioritization of Resources’, with cost effective techniques, studied in conjunction with various quantitative and qualitative variables. Qualitative variables especially social inputs play a key role in affecting health like nutrition, per capita income, water supply, sanitation, housing, amenities, community health services, receptivity of people in availing health services, education, and the structure of the economy etc.

2.7 Public Health and Economic Growth

Public Health Foundation of India\textsuperscript{45} defines “public health as a science dealing with the determinants and protection of health at the population level, while clinical medicine deals with multiple maladies and their remedies at the level of an individual patient.” The fundamental aim of public health is to understand and influence those social, cultural and economic determinants of health, as well as to study and also structure the health care systems to become efficient channels for health services delivery. In other words, public health as a academic field is built on the lines of an intellectual tradition of inquiry involving research, teaching and professional practice to prevent disease and promote health among populaces.


The world over governments make efforts to raise the health of the population through various public health policies. Today, public health assumes great significance in the economic and social development of a nation. Generally, as countries move on the path of progress, the GDP increases and the public expenditure on health also concurrently increase. The engine of development in the broad sense is the quality of life. Generally, the people enjoying better quality of life fall in higher income groups. Such groups benefit from better education, high quality health facilities, better nutrition and they live in a clean environment. Public health activities are subject to change with evolving technology and social values, but the goals remain constant - to reduce the amount of diseases, premature death and diseases – which produce discomfort and disability to the population.

According to Keleher and Murphy\textsuperscript{46} (2004), public health is a policy and practice mandatory for the health of a population, the basic objective of any health care system is to cater to the health needs of the people of the country in a cost-effective manner. Public Health is considered as the science of protecting and improving the health of communities through education, promotion of healthy lifestyles, and research for disease and injury prevention. The basic objective of all health care systems is to cater to the health requirements of the people of the country in a cost-effective manner.

Chopra\textsuperscript{47} (2008), points out, that the research into the factors, reflects the various health inequities in developing countries and this has been eclipsed by the persistence of the burden of infectious, lack of nutrition and reproductive-related diseases largely explained by absolute poverty, and aggravated by profound environmental hazards. This field of enquiry has also been limited in developing countries by the scarcity of high-quality health and health care data available and routinely collected over time. Inequalities in health have important implications for overall well-being even in low and middle-income countries. The author makes a compelling case for the necessity of pursuing the study of inequities in health. Inspite of the logistical barriers faced in collecting data in resource poor contexts, in order to highlight the social, structural and other factors which are the root cause of these inequalities. He believes that


continuous public exposure of these explanatory contextual factors has the potential to provide some of the necessary evidence for policy and political action which might systematically address the plight of the poor. Though Chopra critically goes on to explain that the description of the multi-pathway that causes inequities, it is insufficient to inform the needs to the policy-makers even once if they have been made to listen. According to him more emphasis must therefore be placed – not only in developing countries but globally – on the study of the effectiveness of interventions to reduce inequities, at both the population level and the community level.

Anand⁴⁸ (2004) questions the need of being concerned with health equity and its relation to equity in general. He speculates whether one must be more concerned about inequalities in health, than inequalities in for instance income, and also whether one must be more concerned with some types of health inequalities than with others. The author believes that health should be treated as a ‘special good’ as it is a requirement to a person, functioning as an agent. Therefore, the author states that inequalities in health constitute inequalities in people’s capability to function and should be considered as a denial of equality of opportunity.

Sen⁴⁹ (2004) provides a multi-dimensional framework for investigating health equity. According to him, ‘health equity is a broad and inclusive discipline’, and is concerned not only with equity in the dimensions of health care and health outcomes, but with broader considerations of social justice which have an impact on health. It includes concerns about achievement of health and the capability to achieve good health, not just the distribution of health care. In contrast with those that conceive of health equity as primarily an outcome-based concept, the author emphasizes on the importance of procedural considerations such as non-discrimination in the pursuit of equality of health outcomes and in the delivery of health care.

Marmot\textsuperscript{50} (2004) provides an excellent introduction to the issues raised by research on social inequalities in health and shows that health is positively correlated with socio-economic status. Marmot critically examines a variety of explanations that have been offered for the occurrence of social inequalities in health and states that social gradients in health outcomes should be a matter of policy concern. He shows that even for those disparities in health that may be linked to individual lifestyle choices such as smoking, a social gradient in health outcomes remains after controlling for these choices. The author rejects the ‘health selection’ argument, according to which social inequalities in health arise not because of social influences on health, but because individuals or families with a disposition to poor health are economically less successful and end up in the lower socio-economic groups. He points to the role of social factors which consequently cause ill-health and to underscore the need for policies that address these factors. Hence, such individual choices do not, according to Marmot, undermine the case for interventions to correct inequalities in health.

Kamm\textsuperscript{51} (2004) discusses the problems concerning with the distribution of scarce resources in relation to health. The author discusses micro-allocation problems like giving a health care resource to one person rather than another and macro-allocation problems like, allocating money to production of one health care service or good rather than another. The author also explains the possible academic foundations for giving priority to some factors over others, when allocating these insufficient resources.

Hong and Ahmed\textsuperscript{52} (2009) look at the impact of distribution of government spending on public goods such as health, education and basic infrastructure, its impact on per capita gross domestic product growth and poverty reduction at the state level. The authors use panel data from certain Indian states between the time period of 1990 and 2002 and the findings of the study are consistent with the results of similar studies based on national-level data sets. These results validate that the share of public goods expenditures in total government spending has a large, positive and significant impact.

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on per capita GDP growth, and that the share of spending on social public goods such as education and health contributes considerably to poverty reduction. These results are significantly relevant when it affirms that reallocation of expenditures, to raise the share of public goods spending can on an average augment per capita GDP growth rate by up to 2.7 percentage points, and reallocation of funds, to augment the share of social public goods expenditures could on average decrease poverty headcount index by up to 6.6 percentage points.

2.8 Public Health Care System and Status of Public Health in India
Since the turn of the century, health outcomes and the quality of the health care system in India, has significantly lagged behind those of peer nations. Although there have been positive outcomes, the progress made in the last decade has been mixed. The situation is further complicated by inequity in health care access across states and demographic segments within the population.

Dreze and Sen\textsuperscript{53} (1999) analyze India’s human development, especially health and education in the context of inter-state, inter-regional and rural-urban disparities and overall health system, by comparing the performance of Kerala with Uttar Pradesh. They convey the persistence of widespread deficiencies in India’s human development and emphasize on the need to go beyond the narrow focus of the current policy debates on the issue of market-oriented reforms aimed at accelerating the rate of economic growth through changes in the overall social, political and cultural conditions.

Gupta\textsuperscript{54} (2005) in her study distinguishes between medical services and public health services and lays emphasis on the later, which reduce a population's exposure to disease through such measures as sanitation and vector control. These are essential parts of a country's development infrastructure. In India, policies and programmes were focused largely on medical services. As a result, public health services, and even implementation of basic public health regulations, have been neglected. There are various organizational issues which also go against the rational deployment of


personnel and funds for disease control. Although there is a strong capacity to deal with outbreaks as they occur, but it is not to prevent them from re-occurring. Though there exists an impressive capacity for conducting intensive campaigns, but there is no capacity for sustaining these gains on a continuing basis later on. This is illustrated by the near-eradication of malaria through highly-organized efforts in the 1950s, and its resurgence when attention shifted to other priorities such as family planning. This paper reviewed the fundamental obstacles to effective disease control in India, which need to be dealt with on an urgent basis, as the inattention to public health was taking a large toll on the economy, as well as on the lives of the citizens.

Acharya and Ranson\(^{55}\) (2005) feel that in the recent decades there have been considerable improvements in health indicators in India yet the quality and affordability of health care services continue to elude the poor. Health services provided by the Government only partially meet the needs of the rural and urban poor in the informal sector making is less equitable and affordable. Under such circumstances community-based health insurance (CBHI) schemes could provide viable alternatives. The authors focus on four such CBHI schemes, which are sustained by a pooling of resources as well as the regular “prepayment” of a small sum as premium, so as to enable poorer communities to meet high out-of-pocket medical expenses. Though such schemes are still in their infancy, to ensure a wider coverage and acceptance, CBHI schemes could be attached to other decentralized agencies of governance such as Panchayati Raj establishments.

A preliminary study was conducted by MacArthur Foundation\(^{56}\) (2006) to consider the broad patterns of government spending on health and related areas in the context of the Indian Union and 14 major states. The results of the study showed the declining trend of spending in this sector over the post liberalization decade 1993-94 to 2003-04 along with sharp and growing rural-urban disparities in spending, which in turn had an adverse outcome not only for the affected population but for the society as a whole. This is in turn adversely affects the current social welfare and labour productivity and can be harmful for the future growth and development prospects. In addition to the


findings by this study, it is established that while there was a clear and direct correlation between governments spending on health and health outcomes in terms of Life Expectancy at Birth, Infant Mortality Rate and morbidity were not as expected.

Amrith (2007) gives a historical perspective on the political culture of public health in India and also examines the beginning of the state's commitment to provide for the health of the people. Yet the author argues that there have been several contradictions and breaks in the original promises, which helps to explain the state's relative ineffectiveness in the field of public health. The author argues that the nationalist movement's original commitment to the state provision of welfare arose from a complex arrangement of motives – a concern with democracy and equity as well as concerns about the “quality” and “quantity” of population. The depth of this ambition for public health was not matched by the existing infrastructure and resources. As a result, the state relied heavily on narrowly targeted, techno-centric programmes supported by foreign aid. The paper also examines the malaria eradication programme (1953) as a case study, the limitations of such an approach; the ultimate failure of malaria eradication left a huge dent in the state's commitment to public health.

Ahuja and Chowdhury (2007) reveal that the health impact assessment is globally gaining widespread credibility leading to a holistic view of health care and is being adopted in the policy-making process. But in India, this process has not commenced yet. In a country like India which accounts for nearly 17 per cent of the world’s population and a large proportion of the world’s poor, with poor health indicators, this is will eventually lead to adverse health outcomes. In India, the approach was to perceive health as a stand-alone factor and to cure or prevent diseases through health system. However, health outcomes are not just the result of decisions or actions by the health department, the actions and decisions of other agencies also affect the health outcomes of a society. Unless this basic idea is recognized, the health sector will only be left to handle the adverse outcomes of other policies, with limited ability to tackle the problem at the roots. Globally, nations are adopting and practicing Health Impact Assessment (HIA) for their citizens. The authors look at the viability and necessity of

introducing HIA in policymaking process especially in health. They also suggest an integration of HIA with environmental impact assessment in order to draw upon the strength of the latter and bring in an integrated approach to the issue of impact assessments and their monitoring.

The paper by Baru and Nundy\(^59\) (2008) looks at the development, structure and characteristics of public-private partnerships in health care services in India over the last sixty years. The authors argue that such partnerships have broken down the conventional boundaries between the market and the state, leading to the emergence of numerous actors with many roles and newer institutional arrangements that have redefined their role, power and authority. The authors feel that the disintegration of role and authority has serious consequences for comprehensiveness, governance and responsibility of health services.

Berman and Ahuja\(^60\) (2008) consider that although the Government of India has set a goal of increasing government health spending to 2-3 per cent of Gross Domestic Product (GDP) over the next five years, even with the most positive assumptions, it cannot meet the declared targets. After analyzing the latest trends in government health expenditure both at centre and state levels, they reveal that sound fiscal goals for health spending should be based on targets for outcomes and also on the funds needed to achieve them, which are mostly deficient. The study also suggests that a large and sustainable increase in government health spending will need more focus on the states’ own spending as well as improving the capacities of states and districts to manage resources for health care efficiently.

Duggal\(^61\) (2009) reveals that the centre’s effort to augment public health expenditure by increasing allocations to its National Rural Health Mission programme has failed because the states have responded by decreasing their expenditures. The author states that instead of decentralizing expenditure on health, the centre has taken control of a major share of funds for the sector, which have not been sufficiently utilized even for


their priority programmes. The irony is that individuals who deliver care and can plan as well as budget, understand the state of affairs yet, have no part in the decision-making process, and those individuals, who are the decision-makers, have no idea of the basic realities of public health care.

Karan and Selvaraj\(^\text{62}\) (2009) after analyzing evidence of past morbidity from the various Health Surveys (1986-87 to 2004) and Consumer Expenditure Surveys (1993-94 to 2004-05) of the National Sample Survey Organization, state that public allocations to health care in India have reduced considerably in the last years. The authors state that both the outpatient and hospitalization care in India in the past two decades has declined significantly, leading to the emergence of private care players in a major way. While health care costs have increased in private provisioning, government health facilities are progressively forcing patients to look for private facilities for procuring drugs and diagnostics. As a result, millions of households are incurring catastrophic payments and are being pushed below poverty lines every year.

Kumar et.al \(^\text{63}\) (2010) argues that despite India’s remarkable economic performance after the introduction of economic reforms in the 1990s, improvement in advancing the health status of Indians has been slow and irregular. The authors say that large inequities in health and access to health services still persevere and have even increased across states, between rural and urban areas, as well as within communities. According to the authors, three types of inequities have been seen in the India’s health sector namely; historical inequities that have their roots in the policies and practices of British colonial India, many of which continue to be pursued well after independence; socio-economic inequities obvious in caste system in India even today, class and gender differentials; and inequities in the availability, utilization and affordability of health services. Of these, critical to ensuring health for all in the immediate future will be the effectiveness with which India deals with inequities in provisioning of health services and assurance of quality health care.


Prashanth\cite{64} (2011) feels that in view of pitiable public health care service provision in many low/middle income countries, it would be a wise strategy to collaborate with the private health care sector. This would be a straightforward and clear solution to the issues faced by the Indian health care sector. As the Indian private health care sector is widespread and unregulated hence this solution appears to be innovative as well as viable answer to ill-health that ails the Indian health care sector. However, research in this field is scarce and due to the lack of evidence, health policy is increasingly dependent on rhetoric or single case studies showing success in specific scenarios.

Thomas\cite{65} (2012) scrutinizes the major recommendations on human resources in the report of the High Level Expert Group on Universal Health Coverage for India and shows that most of them are timely and have been made in the right spirit. The author says that some lacunae do exist, especially in the fields of medical education and specialization. But according to the article, the most important issue is whether the recommendations can and will be efficiently implemented to give shape to a non-competitive, high quality medical system that provides all possible preventive and curative services to every citizen in the country.

According to Rao and Choudhary\cite{66} (2012), the three most important features of the Indian health care system are as follows: 1) low levels of public spending with stagnant government spending on health at about 1 per cent of GDP between 1996-97 and 2005-06, and the public expenditure elasticity with respect to GDP was at 0.94, lower than the average for low-income, 2) a resultant poor quality of preventative care and 3) poor health status of the population. The inadequate level of public health provision has forced the populace to seek private health providers resulting in high out-of-pocket (OOP) spending. OOP spending in India is over four times higher than the public spending on health care. This paper specifically analyzes the nature of public spending on health care in India and its impact on health infrastructure and health status of the population. It also discusses the recent attempts to reform and to augment spending on health care through specific-purpose transfers to states and the health expenditure needs of states. Further, it analyzes the fiscal space for health care

\begin{thebibliography}{99}
\bibitem{65} Thomas, G. (2012). Thomas, G. \textit{Economic and Political Weekly}, \textit{47}(08)
\end{thebibliography}
expenditure at the State-level and the stimulation and substitution effects of Central transfers for health. The Indian health care system is characterized by low levels of public spending on health care; poor quality in health care services, with adverse effects on the population’s health status; a lack of focus on preventative health care; and dependency of the population, particularly the poor, on private health care providers and consequently high OOP spending and economic impoverishment.

According to the study by McKinsey⁶⁷ (2012) conducted in association with Chartered of Indian Industries (CII), the health care system in India is quite pitiable. The study highlights the fact that the demand for health care has increased in last 10 years, and accordingly requires a lot of hard work and collaborations between the government and the private sector. Further, India has low levels of pre-payment and lack of competition between health care providers. The industry is unorganized in India with low spending on in-patient care, low affordability in industry, the lack of standards and the prevailing malpractices.

Powell-Jackson et al.⁶⁸ (2013) presents an empirical assessment that there is limited evidence on the quality of primary health care provision in India. The authors using data on the availability of inputs from a nationally representative survey of primary health centers, developed a composite measure of structural quality of care for primary health centers with a view to examine its geographical variation, associations with mortality and health care utilization, along with the determinants of better quality, giving particular attention to the role of management. The mean quality score was 52 per cent, with large differences across regions, states and districts. Quality of care was abysmal and the variation greatest in states, designated by the government as low performing. Good management practices in a facility were highly correlated with better quality of care. Their analysis states that the majority of primary health facilities in India fall far short of government minimum standards, in part, explaining the reasons for most people in rural areas using private providers for outpatient care. Future research should explore the causal relationship between management practices, quality of care and patient outcomes.

Prinja et al. (2013) in their studies from a number of low-income countries have found that the wealthy often use publicly financed health services at a higher rate than the poor. The authors examined and analyzed the situation in India, the use of public and private sector hospital services by the various economic classes and the relationship between utilization and public spending on health services was studied and out-of-pocket payments were assessed and reported. The results obtained showed not surprisingly, that private sector hospital services were found to be significantly pro-rich. This was in sharp contrast to all previous studies, where it was found that India’s poor report using hospital services in the public sector at a higher rate than the wealthy, particularly in urban areas. However, it also reported variations across states. High OOP expenditure correlated with higher degrees of inequity, and was a likely barrier to accessing care for the poor. The authors also stressed on a number of policy options to reduce inequities in access to public health services in India and stated the need for further studies to explore the significant variation seen between states and to understand the history of its development.

Sharma et al. (2013) state that the considerable paucity of physicians in India, largely in rural areas, has impelled the Union Ministry of Health and Family Welfare to recommend a three-and-a-half year Bachelor of Rural Health and Care degree, planned wholly to serve rural populace. But unfortunately, the fierce resistance by influential medical lobbies forced the proposal to fade away. The authors emphasize the importance of “task-shifting” and “non-physician prescribing” in the global context and argues that non-physician health care providers would increase in availability and accessibility for pastoral health care, and at the same time offer an empowered second line of authority, adding to the checks and balances to the exploitative prestige-based hierarchy that permeates this knowledge-intensive service.

Maitra and Ray (2013) analyzed four interconnected child health indicators in West Bengal – child malnourishment (measured by the rates of stunting and wasting),

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prenatal, infant, and child mortality rates. The authors also provide evidence on how these rates vary with the gender of the child, parental education, and the wealth status of households. In fact, though West Bengal does not fare badly on child health in relation to the all-India figures and does better than the rest of East India, it lags behind South India. They reveal that the performance of West Bengal on mortality rates is much better than India as a whole, and, quite significantly, compares favorably with those in South India. However, they stress that effective policy interventions are required to delink maternal health from child health and the importance of this cannot be overstated.

Hunter et al.72 (2014) reveal that use of demand-side financing has become progressively more common in maternal health care and India. Demand-side financing has been used for many large-scale programmes like as the Janani Suraksha Yojana and Indira Gandhi Matritva Sahyog Yojana. The authors have done a methodical review of the evidence to understand how demand-side financing has been used and also to study whether there has been any impact on maternal health service utilization, maternal health, or other relevant health outcomes. Their findings suggest that a myopic view and narrow focus on achieving targets has often put pressure on the already overburdened health facilities. This combined with the inadequate referral systems and unethical practices bring in devastating barriers for women with obstetric complications. The study with the limited evidence available also suggests that little has been done to challenge or change the low status of poor women at home and in the health system thus presenting additional barriers to the health of women.

One of the major focuses of the maternal and child health programmes in India, right from the inception has been the reduction in infant mortality. It is a matter of grave concern there has been an inadequate progress in child survival rates for many decades. James73 (2014) says that despite several efforts, the targets set in the subsequent five-year plans to reduce infant mortality rate have been unsuccessful. Certainly, the pace of decline in infant mortality has quickened in recent years after

the introduction of the NRHM. However, the post-neonatal deaths have declined faster than the neonatal deaths despite the emphasis on preventing the latter in the health mission. Moreover, neonatal deaths constitute more than 70 per cent of the IMR in recent times. According to the author, within IMR, the post-neonatal deaths (deaths of infants between the ages of one to 12 months) have declined faster resulting in faster IMR decline, whereas the neonatal deaths (deaths within one month) recorded only a modest reduction. This may be due to several reasons. First, with the introduction of NRHM all over the country there has been a significant increase in institutional deliveries. Still the neonatal deaths have not adequately responded to this change. This may be indicated in the mere improvement of institutional delivery, which may not bring down neonatal deaths, as it has to be accompanied by the quality of public health care services. Second, widespread undernourishment and anaemia levels among pregnant women in the country, lead to the birth of a considerable number of underweight children, and most public health facilities are unable to cope with such children as they lack the specialized newborn care facilities required. Third, although the aim of the Indian government has been to enhance the public spending on health from 0.9 per cent prior to the NRHM to 2-3 per cent in the coming years, it has only gone up marginally to 1.2 per cent of the GDP. There is a need to further enhance the health spending by the government, as statistics show that public health spending in India remains one of the lowest in the world, despite increased allocation during the NRHM period. Fourth, the public health system is marred by severe shortage of health functionaries, particularly specialist doctors. The author feels that several lessons are to be learnt from this, particularly the fact that even a modest increase in public spending is able to deliver considerable dividends in terms of enhancing infant survival.

Coffey et al.\textsuperscript{74} (2014) investigate the relationships between wealth and children’s health in India’s states, that are as populous as many other countries. The authors present a state-level analysis of the relationship between state net domestic product per capita and various children’s health indicators, and describe how these relationships differ in the last two rounds of the National Family Health Survey. The study finds evidence that the cross-sectional relationships between aggregate wealth

and children’s health indicators are positive, yet the association was less steep in the mid-2000s than in the late 1990s and it also finds a negative relationship between growth in NSDP per capita and improvement in state-level children’s health indicators. These findings are consistent with the hypothesis that the kinds of investments which impact and improve health may lead to economic growth, rather than vice versa.

Jayaraman et al.75 (2014) feel that a fundamental characteristic of many developing countries is the presence of significant gender differentials in health outcomes. The authors attribute two potential factors for these differences. They believe that firstly, females access treatment, later than males and secondly, and that they may receive differential care at the health care facility. The study explores both of these factors in the context of eye care and studies diagnostic as well as surgical outcomes of 60,000 patients, who sought treatment over a three-month period in 2012 at the Aravind Eye Hospital in Madurai, Tamil Nadu. The results of the study show that women have worse diagnoses than men for indicators of symptomatic illness. In order to resolve gender-based health inequalities in developing countries, it is pertinent to understand where these inequalities lie, which is in access and not in care. The findings suggest that women seek treatment later than men for symptomatic illness; they do not necessarily go for regular preventive check-ups at a lower frequency than men. However, there is no systematic evidence that women and men receive differential medical treatment.

Gupta and Chowdhury76 (2014), state that any discussion on universal health coverage in India is hasty without a complete understanding of public financing of health coverage in the country. The authors analyze the government’s share of financial resources for health across different agents, with particular focus on resources for health coverage and at the same time it attempts to separate spending for health in general and health coverage in particular, and to examine the issue of equity. This analysis indicates that the present health coverage system is inadequate and unfair, with various systems running at different costs. Consequently, the article suggests

consolidating finances and moving towards a more unified system to realize the
benefits of efficiency gains in public health care.

Sodhi and Rabbani\textsuperscript{77} (2014) state that universalizing health coverage is the current
goal of the health service system in India. The method used to attain this objective is
through tax-funded insurance for poor families. The Rashtriya Swasthya Bima Yojana
Scheme was brought out in 2008, for those households below the poverty line. This
enabled them to access health services both in the public and private sectors.
Nevertheless, experience from various countries shows that such tax-funded insurance
schemes work well only in those cases, where there is public provisioning of health
care services. The authors feel that such state-funded insurance schemes for the poor
do not critically alleviate inequitable entraée to health services in a essentially private
health care delivery market.

Jacob\textsuperscript{78} (2015) explains that although the upper class in India enjoy better health
successes through effective (but selective) interventions in water, sanitation, nutrition,
housing, vaccination and access to health care, the larger society in India continues to
face disproportionate levels of morbidity and mortality due to infectious diseases.
Decades after the availability of technology and solutions, deaths due to malaria and
tuberculosis, seem to disproportionately infect the poor. While governments talk
about access to health care and many expert committees recommend universal health
coverage, the health infrastructure in the country remains sub-standard and neglected,
the government’s primary care system remains under-resourced and overburdened,
staff discipline and morale are low and they rarely, if ever, receive training to upgrade
their skills to keep up with advances in medicine. They prefer to restrict discussions
on population health to the issue of resources for medical treatment and cite the health
care system’s low absorption capacity and inefficient utilization of funding as an
excuse for not raising spending on health. The denial of basic rights to clean water,
sanitation, nutrition, immunization, housing and employment, on the one hand, which
facilitates the spread of infections in the community, and poor access to health care,
on the other, make a deadly cocktail which fuels epidemics of infectious diseases.

Economic and Political Weekly, 49(35):29-32.

Public health in India demands a framework that not only prevents the spread of infectious diseases by breaking the cycle of transmission, but also puts in place the basic health care infrastructure to treat and manage infections in people who contract them.

2.9 Health Status in Maharashtra and Mumbai

The problems facing India’s health care system has a greater impact on the poor especially for those living in a place like Mumbai. The unequal geographic distribution of doctors and hospitals makes it difficult for low-income families to access quality medical facilities.

Duggal et al.\(^79\) (2006), has discussed the socio-economic and demographic profile of the state of Maharashtra which otherwise is highly economically developed state, but still has failed to assign the required significance to health and health care. The data on health expenditure shows a decline from 1980 to 2001-02 by 1 per cent of Net State Domestic Product (NSDP) to 0.7 per cent NSDP, and the proportion of total government spending has came down from 6 per cent to 4.6 per cent, during the same period. This has resulted in severe shortage of facilities in First Referral Unit (FRU) and Community Health Centres (CHCs) and also a large infrastructural disparity between regions within the state.

Duggal\(^80\) (2007) has analyzed that the state has reduced its share in the health sector, which is reflected in the declining share of health expenditure in the total budget. Increasing proportion of health expenditure on salaries has left very little for non-salary components such as materials and supplies, maintenance, diet, travel etc. and this has created allocative inefficiencies that have drastically affected the performance of various programmes. Data from national surveys clearly reveal a declining share of public services in health care and this has implications on utilization of public health services showing increased burden in out-of-pocket expenditures for health care. In the time period between the two NSSO rounds,

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out-of-pocket costs have increased threefold for inpatient care and by about 50 per cent for outpatient care. The increase is even higher for those using private health care. The rural users are spending significantly larger amounts on both inpatient and outpatient services, but this gap has reduced over the two NSSO surveys, perhaps reflecting the decline of public services in urban areas also and/or the increase in user fees in public health facilities.

Chadha et al.⁸¹ (2007) in their study have tried to examine the empirical evidence on the relationship in preventive health care, labour productivity as well as corporate profitability. The authors have tried to make an effort to create awareness on the constructive role of preventive health care in pushing up the corporate sector’s performance and improving the country’s economic growth. The Indian health care system is undergoing remarkable changes from the previous decades. Preventive, as opposed to curative, health care have become the preferred option in most developed countries, which allows the employees to be more productive. Yet, preventive health care in India is still at a nascent stage. India’s growth potential, profitability and global competitiveness depends substantially on performance of the employees. Unfortunately, while the corporate sector has been quick to realize the benefits of preventive health care policy, fiscal or other incentives are still to be given to encourage prevention. While Indian public spending on health has stagnated at 0.9 per cent of the GDP since the mid-1980s, and with the government per capita health expenditure is one of the lowest in the world, it is time that the state focuses its limited resources towards the health of the poor, and should also provide tax exemptions to these sections which can take care of their own health needs.

Sen et al.⁸² (2010), says that Maharashtra is yet to meet the National norms on rural health facilities. In 2006, the state had about three-fourths the number of sub-centers and Community Health Centers and about 80 per cent of the Primary Health Centers required as per the national norms. Between 2001 and 2006, in terms of health infrastructure there has been a negligible increase in the number of rural health

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facilities in the state, particularly SCs and PHCs. The availability of doctors and hospital beds in the public sector of the state does not appear to do as well as its indicators. Public expenditure on health and family welfare in Maharashtra is relatively low when compared to the GSDP of states like Kerala and Tamil Nadu. These states with lower GSDP than Maharashtra spend more on health and family welfare both in per capita terms and as a share of GSDP. In 2007-08, Maharashtra spent about ₹ 259 per capita on health and family welfare in comparison to ₹ 383 in Kerala and ₹ 276 in Tamil Nadu. In terms of the share of GSDP, Maharashtra’s public expenditure on health and family welfare in 2007-08 was only 0.56 per cent; in comparison, Kerala spent 0.8 per cent and Tamil Nadu spent 0.6 per cent of its GSDP of health and family welfare. Yet, another important factor affecting health services in the state is the per capita expenditure on health and family welfare in the state which has been almost stagnant in the recent past. In fact, the growth rate of per capita expenditure on health and family welfare has been significantly lower than the growth rate of GSDP in the state, resulting in a decline in the ratio of health expenditure to GSDP in the recent past.

Ghosh\(^{83}\) (2014) while evaluating the effectiveness of the “targeting” approach in the Rashtriya Swasthya Bima Yojana examines the determinants of enrollment, hospitalization and financial protection for below the poverty line households. The author uses data from a large-scale survey conducted in Maharashtra in 2012-13 and the findings reveal that almost 50 per cent of BPL households were found to be non-poor and only 30 per cent of them were aware about Rashtriya Swasthya Bima Yojana (RSBY) and more importantly, the impact of RSBY on catastrophic health expenditure was not found to be statistically significant. The author feels that this would be a key step towards achieving universal population coverage and in the long run, the governments should strengthen the resource-starved public health system.

Bhandari\(^{84}\) (2013) in her analysis on the performance of Indian States across three critical sectors, health, education and infrastructure found that Maharashtra stands 12\(^{th}\)

in health index, 6th in education index and 21st in infrastructure index among 21 major Indian states. The comparison of the performance of the states was done across three sectors – health, education and infrastructure. Each of these sectors is complex. The author used a new methodology of “refining” raw data in order to find out how well these states perform in the context of the resources at their disposal. The results of the ‘refined’ analysis were the following states where the good performers – Himachal Pradesh, Kerala, Orissa, Tamil Nadu, Bihar, West Bengal and Chhattisgarh who performed the best across all the three sectors. West Bengal and Chhattisgarh have also been amongst the best of the states, the laggard states were Uttarakhand, Rajasthan, J&K and Jharkhand and the remaining states were average performers. The remaining middle ranking states have varied performance. Goa, Punjab and Karnataka have done well in health and infrastructure, but underperformed in education. On the other hand, Haryana, Andhra, Gujarat, Assam, MP, UP and Maharashtra have each underperformed in health and infrastructure, that is, two of the three sectors. The author concludes that the refined analysis of states is a useful tool in identifying states whose experiments are working, and which potentially can be replicated by others, to make the best use of the resources in hand to provide health, education and infrastructure services to its people.

2.10 Challenges faced by the Indian Public Health Care Sector
Health care systems in both developing and developed countries are in a state of crisis. The burden of providing medical care for those who require it is stretching government budgets. To reduce the pressure on the budgets, alternative measures, e.g. the introduction of a user fee, have been brought in to ensure that the responsibility of financing health care is shared by all. The use of such fees has become a common practice even in developing countries like India, where socialized medicine has formed a major plank of social development. Resources must not only be allocated efficiently, but their utilization in an operational sense is also important. Related to this is the question of the viability and sustainability of the health financing programmes.
Ellis et al.\textsuperscript{85} (2000) show that there is growing evidence that the level of health care spending in India – currently at over 6 per cent of its total GDP – is considerably higher than that in many other developing countries. Their study also suggests that more than three-quarters of this spending includes private ‘out-of-pocket expenses’. Inspite of such a high share of expenditure by individuals, the provision of health care, that is adequate in terms of quality and access, is becoming more and more challenging. Public delivery of health care in particular shows poor quality, apparently due to reasons of inadequate financing and thereby it highlights the need for alternative finances, including provision for medical insurance at a much wider level. The study attempts to review a variety of health insurance systems in India, their limitations and brings out the need for a competitive environment, which is currently missing. The need for opening up of the insurance sector and at the same time also to develop a blueprint of strategies for greater regulation and increased health insurance coverage by making suitable changes – particularly in claim settlements and the exclusion clause.

Mahal et al.\textsuperscript{86} (2001) in their study, summarizes the empirical findings on the use of health services by the poor in India, and provides a national-level analysis as well as state level comparisons. The essential purpose was to examine ways to improve health outcomes in India, particularly for the poor, and also to develop sustainable health systems along with financing to achieve better health outcomes. Three factors that motivate the choice of approach taken were the size of the population, the diversity within India, and the unique governance structure provided for comparative analysis, to learn about equity in health service use. The findings of the study showed that like most developing countries, publicly financed curative health care services in India were more skewed in favour of the richer segments of the population than the poor sections and those below the poverty line continued to rely on the public sector and lastly the richest quintile of the population were more likely to use tertiary level hospital services than the poor. Further, the study also showed that public health


services and facilities in urban areas were found to be more fairly used than those in rural areas.

Peters et al.\textsuperscript{87} (2002) feel that India’s health system is presently at a crossroad. The ability of the Indian health sector to fight infant mortality, communicable disease, and malnutrition is being stretched out, yet at the same time it faces emerging demands for better service and more attention to the chronic diseases of adulthood. New health threats are stretching the capacity of the health system to respond. The average Indian remains medically underserved by the present health care system. This report focuses on four areas of the health system in which reforms and innovations would make the most difference to the future of the Indian health system: oversight, public health service delivery, ambulatory curative care, and inpatient care.

Jeffrey et al.\textsuperscript{88} (2007) have raised the issues that have beleaguered the Indian public health services. These problems relate to high absenteeism, low quality of services, low satisfaction levels within the health care system and rampant corruption. These have created an environment that causes mistrust among the general populace about the public health system leading to a rapid growth of private health care service providers. The authors have argued that a weak voice and lack of accountability were the key constraints to effective delivery and these problems were tried to be addressed in the National Rural Health Mission (NRHM) by empowering local authorities to manage and control public health services on the lines of “money must follow the patient”.

KPMG India\textsuperscript{89} (2011) while analyzing the emerging trends in health care, states that while the Indian Health Care Sector is poised for growth in the next decade, it is still plagued by various issues and challenges like the problems related to dual disease burden and lack of infrastructure and manpower. The urban Indian population is now


on the threshold of becoming the disease capital of the world and facing an increased incidence of lifestyle-related diseases such as cardiovascular diseases, diabetes, chronic obstructive pulmonary disease etc. Simultaneously, the urban poor and rural India are struggling with communicable diseases like as tuberculosis, typhoid, dysentery etc. Limited accessibility to health care services in many rural areas of the country, along with unplanned and irregularly distributed existing health care infrastructure, severe lack of trained doctors and nurses to service the needs of the large population add to the health woes of India. These represent serious challenges that the Indian health care system need to address expeditiously.

Sen\textsuperscript{90} (2012) believes that India’s march towards universal health coverage began right in the early years after Independence, but wavered due to a number of factors primarily that of severe resource constraints. The author says that although the context has vastly changed since then, the need remains just as urgent and states that the report of the High Level Expert Group on Universal Health Coverage (UHC) notes the complex nature of the health situation in the country and puts forth an integrated blueprint for achieving UHC. The author believes that there may be a few shortcomings, but if the suggested interlinked proposals are put into practice in a carefully designed manner, a long deferred promise of proper health care to the country’s people could be principally fulfilled.

A study conducted by PricewaterhouseCoopers\textsuperscript{91} in 2012 states that life in India, with a population of 1.21 billion out of which 26.1 per cent is below the poverty line, is rife with many challenges – high income disparity, lack of basic infrastructure and the incidence of diseases. As a result delivery of quality affordable health care is an enormous challenge. The report brought out by the ASSOCHAM Council\textsuperscript{92} on health care and hospitals, points out that India has an average 0.6 doctor per 1000 population against the doctor-population ratio globally of 1.5:1,000 which clearly suggests a specialized manpower gap.

\textsuperscript{92} ASSOCHAM Council
Azad India foundation\textsuperscript{93} in its studies feels that the public health system in India suffers from many problems, which include insufficient funding, shortage of facilities leading to overcrowding and severe shortage of trained health personnel. This is accentuated due to is also lack of accountability in the public health delivery mechanisms. These are some of the reasons which have placed India at the lowest rank in the Human Development Index (HDI).

It is stated by World Health Organization, that India is losing more than 6 per cent of its GDP annually, due to premature deaths and preventable illnesses. According to a World Bank Report\textsuperscript{94} (2012), India is home to the greatest burden of maternal, newborn and child deaths in the world. Infant Mortality Rate declined from 83 per 1000 live births in 1990 to 47 per 1000 live births in 2010 and Maternal Mortality Rate reduced from 570 per 100,000 live births in 1990 to 212 in 2007–2009. However, both remain high in comparison to other BRICS countries. In India, the total expenditure on health is just 4.2 per cent of GDP. Over 70 per cent of the medical expenditure is out-of-pocket expenditure which increases the financial burden on the poor. India remains among the five countries with the lowest public health spending levels in the world. In short, the vulnerable sections of the Indian population barely enjoy proper financial protection when they fall sick.

Low public expenditure and insufficient health insurance coverage impede the effectiveness regarding health gain and equity because of the high risk of catastrophic payments by the population, as well as the financial barriers to access. Trained human resources are a particularly important challenge for India. Despite producing massive numbers of health professionals, the number of doctors with recognized medical qualifications under the Medical Council of India Act and registered with state medical councils was only 0.9/1000 inhabitants in 2010 (some 816,629 doctors plus 104,603 registered dental surgeons); there are also 752,254 registered AYUSH doctors and the number of nurses is also 0.9/1000 inhabitants in India. Challenges


also relate to the distribution of staff per 1,000 populations. Many of the urban areas are much better served than rural areas in terms of availability of medical personnel.

2.11 Strategies to Surmount the Indian Public Health Care Sector Challenges

Reddy\(^{95}\) (1992) has suggested the need for a drastic change in the resource allocation for different categories as well as for different programmes, if health status in the country has to be revamped and bettered. Some of the programmes – like prevention and control of diseases, maternal and child health, mass education, training and research, rural family planning - crucial to improve health status, are presently being given negligible significance. The priorities, as supported by statistical evidence, are mass education; training research and evaluation; public health laboratories; health education, training and research; prevention and control of diseases (including other systems of medicine); maternal and child health; rural family planning, urban family planning; medical education, training and research. But to be practical, priorities have to be guided by various qualitative factors influencing health care on the one hand and magnitude of total health expenditures in the country on the other hand.

Gupta and Rani\(^{96}\) (2004) discuss the health sector in India and state that the country has relatively poor health outcomes, despite the existence of a well-developed administrative system, good technical skills in many fields, and an extensive network of public health institutions for research, training and diagnostics. They suggest that the rationale behind such poor outcomes may be due to the health system misdirecting its efforts, or even due to the poor design of the health system. The authors feel that the collected data indicate that the reported strengths of the system lie in having the capacity to carry out most of the public health functions. Yet the system may have certain weaknesses, which may lie in three broad areas. First, it has overlooked some fundamental public health functions such as public health regulations and their enforcement. Second, deep management flaws hinder effective use of resources, including inadequate focus on evaluation; on assessing the quality of services; on dissemination and use of information; and on openness to learning and innovation.

Resources could also be much better utilized with small alternatives and greater flexibility to reassign resources as priorities and needs change. Third, the Central Government functions in too much isolation and needs to work much more closely with other key players, especially with State Governments, as well as with the private sector and with communities. The authors conclude by stating that with some re-assessment of priorities and better management practices, health outcomes could be substantially tweaked. It is generally believed that all citizens share an interest in health and health care, and it is in the national interest that the resources available for health should be spent effectively. Regardless of their stage of development or level of income, people desire an improvement in their state of health, greater access to a wide range of health and health related services, and to enjoy the benefits of scientific and technological advances that will assist their aims.

Jha and Laxminarayan⁹⁷ (2009) believe that most of the challenges faced by India’s health system are the result of underinvestment, inefficient use of resources, failures of management and poor governance. The authors reveal that the consequences of underinvestment in public health services are inadequate physical facilities, inadequate equipment and supplies, manpower shortfalls, management failures, lack of health monitoring systems etc. Public health services are not available for many, especially in rural India. The study showed that more than a third of community health centers surveyed had inadequate infrastructure, less than half had adequate equipment, only a quarter had adequate supplies of medicines and dressings, and only 14 per cent had adequate staff. Apart from infrastructural inadequacies, India also suffers from severe trained manpower shortages, especially in the supply of doctors between rural and urban areas, and between affluent and poor states.

Further challenges faced by the health sector in India along with resource inadequacies are equally serious problems in the management of the health system, which include a lack of capacity for planning and monitoring, and inadequate flow of information to the purchasers and users of health services. In health, contrary to the field of education, most states have only limited capacity for functional strategic

planning and policy making. As a result, health which is a state subject has been a vulnerable item in each state’s budget, leading to unstable funding. The result has been wide variations among states in issues such as quality assurance, pharmaceuticals, patient rights, ethical standards, and the maintenance of records. The authors suggest a few measures to resolve these challenges, which are by increasing spending on health at Central and State levels, creating incentives for State Governments to improve service delivery by rewarding outcomes, financially compensating states that achieve reductions in mortality, controlling cost escalation by regulating private and public providers’ services, using planning units to advocate for investment in skilled staff, training, monitoring, infrastructure, improving flow of information to purchasers and users of services, driving demand for quality etc.

Desikachari et al. 98 (2010) state that the Central Government’s policies have inadvertently de-emphasized environmental health and other preventive public health services in India since the 1950s, when it was decided to integrate the medical and public health services and shift focus to public health services largely on single-issue programs. The authors believe that diseases ensuing from unhygienic conditions impose high costs even among the rich, and this combined with the swift urbanization increases the potential for spreading of communicable diseases. Diseases which are the result from poor environmental health conditions continue to inflict high costs and hinder development. There are many approaches to strengthening the public health system, and the authors having analyzed the Central Government’s policies and suggested one that may require relatively little modification in the existing structures and systems. The authors describe Tamil Nadu’s public health system, which offers basic principles for strengthening public health within the administrative and fiscal resources available to most states. They suggest that by establishing a public health focal point in the health ministry, and revitalizing the states’ public health managerial and grassroots cadres would boost the public health care sector The Central Government could also consider linking its fiscal support to states with phased progress in four areas: (1) enactment of public health acts to provide the basic legislative groundwork for public health action; (2) establishment of separate public

health directorates with their own budgets and staff; (3) revitalization of public health cadres; and (4) health departments engagement in ensuring municipal public health. The central focal point could provide the needed support, oversight, incentives, and sanctions to ensure that states build robust public health systems. These measures can help governments use public funds more effectively for protecting people’s health.

Rajivlochan\(^9\) (2015) considers that the crucial means to improving the quality of health care services in India and at the same time reducing costs is by bringing in legislation which lays down a minimum standard of patient care. The author states that the lack of such quality standards, along with the unwillingness of health insurance companies to standardize either price or quality, health care services in India will continue to be of uncertain quality and expensive. Developing standards of patient care by legislative mandate and a change in the attitude of health insurers can change the equation in favour of the patient who is now at the mercy of the hospital.

Balakrishnan\(^10\) (2015) believes that Kerala has shown that it is possible to improve the quality of life of a people even at low levels of per capita income through efficient provisioning of public services in health and education. At the national level there has been a dramatic alteration of production possibilities achieved by intelligent public policy intervention supported by determined resource mobilization and that what is needed across India’s states is a greater synergy between these two approaches. For almost a decade, now India has been perceived as a rising economic entity in the world. Its inclusion in the grouping BRICS (Brazil, Russia, India, China and South Africa) is an indication of this. Kerala is a very small region within India, till recently one of its smallest states. However, for close to four decades it has held a place in the imagination of the world’s development economists.

Kerala amongst India’s states today has one of the lowest rates of poverty measured in terms of per capita consumption expenditure. This implies that Kerala is not unique in this matter, and the rest of India could possibly take some of the richer states as its role model. But there is something quite unique about Kerala in that it has social


indicators superior to most parts of the rest of India. Kerala has been able to combine poverty alleviation with wide spread social development. Even more noticeable, however, is that this social development is relatively well spread within its population, and this development is reflected in indicators such as wide-ranging as literacy, life expectancy and the sex ratio.

The KPMG report\textsuperscript{101} (2015) aims to provide a view, to help visualize the impact of investment on the health of citizens. It suggests an investment to improve the economic growth of the nation, and not as a social expenditure. A healthy workforce is more productive as it can work for a longer duration than an unhealthy worker who is also unable to help the nation in raising the standard of living. As the disease burden grows in developing countries, untimely death and the growing non-communicable diseases (NCD) burden affect a large portion of population in the developing economies, including India. Measures like affordable health care policy intervention in developing countries has the potential to significantly improve the status of health care in those countries and have a significant impact on their economic growth. While the government has taken significant measures to improve access to quality care, this sector has also seen emergence of private players due to the growing health care needs of the population, with an inflow of both domestic and foreign investments. However, the public sector’s apathetic performance, due to limited investments and sub-optimal utilization of available resources, has hindered its growth in India. This is attributed to the prevailing perception of health care as more of a social expenditure rather than an investment to improve economic growth of the nation. The report stresses the need to change prevailing mindset on investment in health, in order to accelerate growth and strengthen health care facilities. The onus of bringing the health sector into the limelight as a Gross Domestic Product (GDP) driver now lies with the policy makers. This move shall further acquire the interest of private players, thereby attracting more investments and creating a conducive environment for the health care sector to grow and thrive.

2.12 Conclusion

This chapter has been an attempt to review different aspects relating to the health status, public health expenditure and relationship between health status and public health expenditure in India and of its various states. The review of literature for this study is not exhaustive and many more aspects still need needs to be carefully studied. The review of literature highlights a few pertinent following facts about the Indian health care sector, especially the ‘public health care’. The literature focuses on the fact that the government spending in the health sector is one of the lowest in the world and consequently the out-of-pocket expenses are high in India. This has paved way for the presence of ‘private health care’ services as major health service providers both in rural and urban India.

Since 1990s, due to the inadequacies in the public health system, the private health sector has thrived at the expenses of the public health sector. The focus of the health policy has moved from being a ‘broad universal health care’ system as defined by the Bhore Committee (1946) to a selective and targeted programme-based health care policy, where the public health is restricted to family planning, immunization, selected disease surveillance and education and research.

The reforms of 1992, has brought about a decline of public investments and expenditures in the health sector which has further aggravated the problem by putting pressure on the public health sector in India. Consequently, most Indians have to access private health care that is expensive and often unaffordable. This has adversely affected the under-served, underprivileged and other vulnerable sections of the society. Past research reflects the wide disparity in health care services between rural and urban India and the under-utilization of public health care facilities due to factors of poor quality of these services and infrastructure, absenteeism among the medical personnel, lack of transport facility, long waiting hours, and long queues etc.

Changing demographics, rising socio-economic status due to changes in income and education levels, along with media exposure, population increase in the population, etc. have led to an increasing demand for quality health care both in public and private sector. Literature also shows that patient satisfaction is a key decisive factor in
evaluating the health care service quality, their feedback is essential in assessing and improving the quality of health care facilities.

These facts have helped to identify the research gaps, on which the objectives of the present study are based on. The study examines the issues of availability of health facilities, utilization of health services in urban areas, and quality of service provided in the city of Mumbai. Therefore, the present study is an attempt to understand the pattern and trends of public health expenditure in Mumbai, since 2005, especially by the MCGM and also to study the growth in the public health care infrastructure since 2005, in Mumbai in order to get an idea about whether the public health care expenditure keeping pace with the growing health care needs of the population of Mumbai. Further, the study attempts to understand the perception of the public health care services users’ towards the public health care facilities in Mumbai. Further studies have to be made to understand and analyze areas for further reform and changes in policies, along with necessary up-gradation which will enable the nation to progress further with a healthy population.

However, there are few in-depth studies on the low health care expenditure by the municipal authorities in Mumbai and its impact on utilization of the public health care services by the poor. This study tries to understand the need and requirement for having an increase in the public health care expenditure to meet the escalating demand for the same, as the urban population, in Mumbai, keeps expanding.