Chapter – I

Introduction
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1.1- Introduction:

Health is one of the most valuable assets for human beings. Good health refers to freedom from any illness and the ability to realize one’s potential. Health, therefore, can be best explained as the vital basis for defining a person’s sense of wellbeing. Increasing the health standard of people is an end in itself a fundamental goal of economic development. But it is also a means to achieve other goals also such as poverty reduction. The linkages between economic growth and health are much stronger than we generally understand. The burden of disease in some developing countries, stands as a barrier to economic development and therefore must be addressed effectively in a development strategy (WHO, Commission on Macroeconomics and Health, Sachs, 2001). Good health, especially women and child health contributes to the production of productive services because the better the state of health, the more time available for income generating activities. So, health care of every individual especially for women and child is very important for the overall economic development of a nation. According to Amartya Sen (2014), health care is not something that is supported by economic growth but it is something that supports economic growth. Health care means not only medical care but also all other pro preventive care aspect too. The report by the High Level Group on the Lisbon Strategy for Growth and Employment (2004) states that health and health care play a major role in generating productive workforce, employment, social cohesion and hence economic growth. Out-of-pocket expenditure is very low in India as compared to developed and some developing countries and it dominates the cost of financing health care. Health care can be improved by implementing good health care policies, good political economy, and reduction in poverty, increasing employment, good public information and communication system.

Maternal and child health forms a very crucial element of the health status of a country. In general, developing countries have a poor maternal and child health status and India is no exception to this trend, as is revealed from various government reports that not only maternal health status is poor in developing countries, but also child
health status is very poor. In terms of maternal and child status huge differences exist between developing and developed nations. According to world health statistics, everyday about 800 women lose their lives due to complications regarding pregnancy and child birth. The extent of maternal and child health problems in India is enormous. India accounts for almost 19 percent of all live births and 27 per cent of maternal deaths worldwide (Ramasubhan and Jejeebhoy, 2000). Each year about 136,000 maternal deaths and almost one million newborn deaths take place in India (WHO, 2005). Apart from maternal and newborn deaths, there is also the incidence of other complications of pregnancy, such as morbidity and birth-related disorders.

The question before the policy makers is why a shameful health and health care is perpetuating in-spite of several policies and schemes to improve the health standard of this section of population i.e. women and child. The International Conference on Population and Development (ICPD), 1994, stressed on the importance of reproductive health, especially, on maternal health for overall development. The present study makes an attempt to study the maternal and child health care prevailing in India. The need for the present study comes from the fact that though India has a constitutional responsibility towards maternal and child health, yet the maternal and child health care in our country is inadequate or inefficient, as can be proved from the available literature. Maternal and child health has many consequences. The poor maternal and child health leads to high risk of maternal and child mortality, miscarriages and stillbirths along with the incidence of neo-natal, post-natal and infant deaths. So far as reproductive health is concerned, complication related to pregnancy and child birth is among the leading cause of mortality among women of reproductive age in many less developed countries (United Nation, 1995). Therefore, survival rate of mother and child depends upon the health and health care of the mother. The use of maternal and child health services improves the health and well-being of women and children (Short, Zhong, 2004) Which in turn depends upon the nature of general accessibility of health care of the mother such as antenatal and postnatal care; place of delivery and assistance during delivery. Maternal and child health is also essential for the development of a country, since improvement in maternal health status can improve the newborn health which ultimately, increases the productivity of the country.
1.2- Statement of the Problem:

In this study the issue that has been focused upon is the inter-state diversity in various facets of maternal and child health care in India. The nature of provisioning of maternal and child health care reveals the accessibility of health care services. In this light, the study tries to expose the inter-state diversity in the provisioning of healthcare facilities especially in primary health care. The issue of utilization of maternal and child care is also raised in the study.

Special attention has been placed on the antenatal care (ANC), delivery care, postnatal care (PNC), child immunization, infant mortality rate etc. Among these health parameters antenatal care and safe delivery are very vital because these are directly linked with maternal and new born deaths, loss of fetus and so on. Pregnant women need proper health care at regular intervals of time before the birth of the baby. This comes in the ambit components of antenatal care. The safe motherhood initiative signifies that all pregnant women should receive basic antenatal care provided by a doctor or a health worker either at a health centre or at home (Harrison, 1990). Another issue that has been taken up in this research is place of delivery as the maternal and child health care is to provide good quality health services that would results in safe delivery, so that the lives of both mother and child would be safe. In a condition when mother delivers and an emergency arises, one should have access to trained health care personnel and well equipped health care centre, which can save the life of mother and child. Therefore, it is very important to consider the place of delivery as a vital element during delivery. Likewise, postnatal care (PNC) refers to the health care necessary for the mother after child birth to regain her health.

There are vast disparities at the national and international level in terms of health care. India’s performance in health care sector is not in proportion to her economic potentials, India is far behind from some developing countries even, such as Sri Lanka, China. To find out the reason of this low standard health care there is need to analyse the widespread inter-state inequalities in health care facilities. On the one hand, states of Kerala and Tamil Nadu are moving with developed part of the world in health care sector while states like Madhya Pradesh, Orissa, Bihar and Uttar Pradesh fall in the category of least developed countries. Even more prosperous states like
Haryana, Maharashtra and Gujarat lag behind the moderately developed states namely Kerala and Tamil Nadu.

With the growing population in India and her states the provision of public health care has also increased, though there are considerable disparities across the states. Ensuring equal access to health care in every part of the country, to assured good quality health status for all is imperative. In India health care has an unusual mix of public and private health care that generates a political economy which makes the health care sector purchasing power dependent. In a country like India, majority of people struggle under severe poverty conditions and do not have enough purchasing power even to attain an adequate nutritional level. According to Rapid Survey on Children conducted in 2013-14, 29.4 percent of all children below the age of five years are underweight and National Family Health Survey (NFHS) reveals that 52 percent of all women are anemic. This humanitarian destruction is not just a loss for the person of a nation but also a tragedy for the world as a whole. A healthy and developed society cannot be built on the decay of hunger, malnutrition and ill health. Health care is a very important element to raise the health standard of the people of a nation which ultimately would raise human capabilities, efficiency in work which is needed for the overall growth and development of a country. The improvement in maternal and child health status results in improvement in national income, reduction in poverty. In rural India health care is mainly dependent upon the traditional cure for many years and health is neglected which reduces their working capacity. Therefore it is very important to improve the maternal and child health status which has long lasting effects on the human development by ensuring an adequate rural health care infrastructure, healthcare manpower and proper healthcare services.
Figure 1: India’s Share in World Health Indicators

<table>
<thead>
<tr>
<th>Category</th>
<th>Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Mortality</td>
<td>23%</td>
</tr>
<tr>
<td>Maternal Mortality</td>
<td>19%</td>
</tr>
<tr>
<td>Doctors</td>
<td>8%</td>
</tr>
<tr>
<td>Nurses</td>
<td>8%</td>
</tr>
<tr>
<td>Health Worker</td>
<td>9%</td>
</tr>
<tr>
<td>Disease Burden</td>
<td>20%</td>
</tr>
<tr>
<td>Population</td>
<td>18%</td>
</tr>
</tbody>
</table>

Source: World Health Organization

Figure presented India’s share in the world’s health and demographic indicators. The total contribution of population in total world’s population is 18%. The share of child and Maternal Mortality that contribute India to the world’s child mortality is 23% and 19% respectively. If we talk about the share of health delivery in India, it is listed among the lowest contributor in the world. India’s share of doctors and nurses in the world is only 8% respectively. Indian health worker also share a small portion of world’s total health worker. They contribute only 9% share to the world’s health worker. India is supposed a home of diseases, because in the country there are many communicable and non-communicable diseases which affected thousands of people every day. With 18% of world’s population, India contribute almost 20% of disease burden.
1.3- Healthcare, Health and Development:

Health care, is the maintenance of health through the prevention and diagnosis of diseases and illness and other physical and mental imbalances in human being. Healthcare is delivered through various healthcare professionals such as physicians, surgeons, nurses, midwife, dentist etc. Healthcare is done through primary healthcare, secondary healthcare, and tertiary healthcare.

Healthcare, health and development are closely related with each other either directly or indirectly. Access to healthcare varies across the country, states, and individuals, and is influenced by government healthcare policies. Healthcare organization in any country is established to solve the health needs of population. Healthcare is the prevention of diseases or any other illness in human being. Every country maintains some basic healthcare infrastructure to attain a comfortable quality of life. Health standard of a nation depends on how a country caters to the health demands of its people. The more efficient healthcare system a country has, the more influential would be the health care services in that country. In some countries healthcare is run by market participants whereas in some countries it is distributed among central government and state government.

Source: Compiled by authors
Healthcare in India is a state subject as the Indian constitution divides the powers between centre and its states (Part XI, Indian Constitution). However, due to underfunding of public healthcare system in India; private healthcare sector is the main healthcare provider. Thus, most of healthcare expenditure is out-of-pocket expenditure which increases the catastrophic health expenditure of a family. This has led threats to many families to maintain a basic standard of life. In a country like India, where below poverty line (BPL) population is more compared to rich population, Public healthcare services are very necessary to attain a standard level of health. With public expenditure on health as a percentage of GDP falling continuously and rise of private healthcare expenses, poor people are left in a worse condition to access health care services. Unavailability of health care to poor people has left them in the grip of illness and low quality of life.

Health is the state of complete wellbeing and freedom from any physical or mental health problem. Good health increases the productivity and efficiency of human beings which in turn help in to uplift their standard of living on one side and overall development on the other side. Healthcare and development have a two way relationship. Healthcare results in formation of productive human capital and therefore, has an intrinsic value. Development creates higher per capita income, better standard of living, advanced medical care, improved diet pattern and nutrition which cause better health outcomes. Healthcare improves health level of children that ensures fewer dropouts from school. Healthcare and health have a long lasting effect on economic development. Good healthcare ensures long life expectancy, higher earning capacity, higher employment level, greater purchasing power and saving capacity. A highly advanced level of healthcare will make sure a continuous supply of productive and efficient human capital which plays a very crucial role in the production process. As we all know that economic development is a function of capital, labour and natural resources. Out of these factors productive and efficient labour force is the most detrimental factor of the production process or indirectly development level of a country. Healthy and skilled labour force generates a higher level of demand together with high income and output generation. Thus higher level of health is very necessary for the development of a society and country as well.
1.4- Importance of maternal and child health care:

To improve the maternal and child health care is one of the important public health goal of a nation. Maternal and child health status determines the health of the future generation that can help in the prediction of next generation health challenges for the countries as well for the world. Health care during pregnancy can help to diagnose the health problems associated with pregnancy outcome and health risks in women which can prevent the future health problems for women and their child. The risk of maternal and child mortality and other pregnancy complications can be reduced by increasing access to antenatal care and postnatal care. Moreover, healthy outcomes, early identification and treatment of complication among newborn can prevent their mortality or disability and enable them to grow as a healthy adult with their full potential.

Maternal and child health care has long lasting effects on the economy of a nation and on the world as a whole. Healthy mothers can give healthy children which ultimately grow into a healthy adult. Healthy adult participate in development process more actively than an unhealthy adult. Healthy people are more efficient and productive, earn more money, having higher saving capacity, and thus ultimately affect development process positively. Healthcare is a way to empower the most deprived section of the society i.e. women and child, and thus help in poverty alleviation in some or the other way which results in the development of economy.

1.5- Review of literature:

In this part of this chapter an effort is made to explore the available literature on maternal and child health care. The prevalent health condition of mother and child in India have been clearly reflected in the work of researchers with the help of sensitive health indicators like infant mortality rate, maternal mortality rate, under-five mortality rate, nutrition, family income, mother education, economic growth, life expectancy at birth, institutional delivery etc. Importance of health in respect of economic growth and development is studied in broader perspective. Interstate variations, regional disparities, and problem of mother and child health care are examined.
Carroli, G. et al. (2001) in their paper they talk utilization of Antenatal Care (ANC) in urban areas. In their study, they found that the knowledge about ANCs is strongly associated with ANC utilization. Higher education level, Hindu religion, age at marriage and owned house was found to be associated with knowledge of ANCs. Finally, they conclude that awareness on ANCs should be increased through campaign and mass media.

K.B. Pathak, A. Pandey, A. Ojha (2001) in their paper discussed the utilization of maternal health care services and child spacing. They pointed that the provision of maternal health care services was a motivating force for couples to adopt family planning. They focused on utilization of antenatal care services and institutional deliveries. They were of the opinion that it was easier to promote family planning among women who came for antenatal care and institutional deliveries. Finally, they concluded that the women using maternal health care services had a rather longer birth interval. They suggested that counseling and follow-up activities should be undertaken to promote the use of maternal health care services in addition to the permanent method.

Patil A. V. (2002) in their paper talk about the current health scenario in rural India. They said that despite various growth-oriented policies and programs implemented by the government country facing serious health challenges especially in rural areas due to widening economic and gender disparities. They pointed out that almost 75 percent of health infrastructure, healthcare manpower mainly concentrated in urban areas which cater only to 27 percent of urban population. They further said that most of the infectious diseases dominate the rural areas. They pointed out that health status of the rural population is still a cause of great concern. They recommend bringing the poor and rural population to the center of the fiscal policies.

V. Patel et al. (2004) in their paper explained that maternal mental health had a very serious effect both on the health of the mother and the infant. They pointed out that over 220 million children aged less than 5 years in low-income countries like India faced impaired growth and underweight problem. They said that the main reason for maternal mental health in low-income countries was the sex of newborn and women's limited ability to control their pregnancy. They further said that Infants showed poorer growth as a result of such post natal depression. They suggested that the government
must implement some policies in low-income countries for intervention in such cases, which would, in turn, promote both maternal mental health and infant health.

M. Deogaonkar, MD (2004) in his paper talked about the socio-economic inequality and its effect on health care. He said that inequalities in access to resources were detrimental to the health care of any society especially where there were a diverse, multicultural population and unequal economic growth. He concluded that a country like India with its unequal distribution of resources adversely affected the health of vulnerable section of society due to gender, social and economic related differences.

A. Harold (2005) in his article showed the linkages between poverty reduction strategies and child nutrition. He argued that there were considerable gains to be had in investing in nutrition, as it reduced mortality, morbidity, increased physical productivity and school enrollment. He further argued that percentage decline in malnourished children was almost half of the rate at which GNP per capita grew. Finally, he suggested that the economic cost of carrying this health burden was much greater than the cost of investing in programs to reverse malnutrition.

N. Ahmad (2006) in her paper presented a picture of health conditions of the rich and poor population. She found that there exist inter-state disparities between rich and poor population and between rural and urban population. Poor people were more exposed to illness than rich people because they had less access to health care services, safe drinking water, adequate nutrition etc. She further talked about the inequalities in IMR and U5MR among the poor and rich population, the IMR in poor population was more than twice while U5MR was almost three times than in the rich population. She suggested that poor population required special attention in terms of health because they were mainly concentrated in backward and remote areas with a weak health infrastructure, and they also had poor access to public and private health care centers due to lack of resources. She further suggested that government should increase the investment in health infrastructure so that a minimum health care was provided to the poor population either free or at a very high subsidy.

A.K. Panda (2006) discussed the low HDI and its causes in India. He made an illustration of public health spending in deficit states like Assam, Bihar, Uttar Pradesh, Madhya Pradesh etc. and the outcome of it in terms of life expectancy at birth, and infant mortality rate.
Nair KRG (2007) in his paper analyzed the inter-state differentials in malnourishment among children in India. He pointed out that these disparities had increased over time. He further said that the children need extra care as they were our future assets. Finally, he suggested an increase in women's age at the time of first child birth and adoption of early breast-feeding practices.

S. Jose, K. Navaneetham (2008) presented a picture of malnutrition among women in India. In their paper, they stated that nutrition was an important component of the human development. India experienced higher economic growth and poverty decline continuously, but it did not show any improvement in women's malnutrition. They found an increase in anemia in women. They argued that the influence of maternal malnutrition goes beyond maternal mortality to intrauterine growth retardation, child malnutrition and rising emergence of chronic diseases. They suggested that it was important to view women malnutrition as an important issue of human development rather than as an isolated issue of women's health and to take measures to address malnutrition as well placing women's well-being on the development agenda.

A. Acharya, P. McNamee (2009) in their paper presented a picture of maternal health in terms of maternal mortality. The parameters used by them to measure the condition of maternal health were inaccessibility of health services and unavailability of obstetric care. They talked about the "Chiranjeevi scheme" introduced in Gujarat to provide free private nursing facilities for BPL women. The scheme showed good results in reducing MMR by 20 times. They focused on the loopholes like the quality of care and transfer of complicated cases to public hospitals.

Nighat Ahmad (2009) in an article she raised the contemporary issue of “inclusiveness” in health. She focused to the problem and warned that MDGs could not be achieved without targeting socially excluded sections and groups of society which were most vulnerable. The conclusion of her study was that expenditure on health did matter but more important to it was its inclusiveness to improve health status in terms of IMR, MMR, ANC, U5MR etc.

S. Jose. K. Navaneetham (2010) in another paper sought to examine access to social infrastructures such as a toilet facility, clean drinking water, and safe cooking fuels which lead to a decline in under-nutrition among women in India. They found that impact of under-nutrition was substantially larger among women who had less access
to social infrastructure. They further said that lack of proper sanitation made women more vulnerable to infection, cooking with biofuels exposed them to more toxic gasses and fetching water from a far-away source drained away women’s physical energy. Finally, they suggested some policy reforms that would ensure access to these aspects of social infrastructure to the poor women.

Digamber A., Chimankar, H.Sahoo (2011) in their paper stated that there were various socio-economic obstacles in the use of maternal health care services in Uttarakhand. They used the NFHS-3 data for their study and focused mainly on antenatal care, safe delivery, and post-natal care. They found that women with a higher standard of living, higher education and with a good exposure to mass media had relatively a higher utilization of maternal health care services compared to the women with the poor condition of living and low level of education. 70 percent of mothers in urban areas used at least 3 ANC compared to only 36 percent of rural mothers. They found that only one-third of women availed of medical facilities or delivered in medical institutions. Major obstacles in institutional deliveries were traditional attitudes and cultural beliefs about pregnancy and childbirth. They also found that weaker section of society accessed less post-natal care than the upper section of the society.

F. Ram, A. Singh, U.Ram (2011) in their paper found that the fruit of human rights was extremely limited to women and children towards achieving good health. They pointed out that poor women have less access to healthcare facilities. Only 25-30 percent of women from poor families advised on contraception as compared to 50 percent of rich women. They found that nearly 29 million Indian women whose reproductive rights were violated were economically poor. These women also had less access to child health care. Nearly 60 million children were underweight and almost 50 percent suffered from anemia. They further said that almost 34 percent poor women were aware of Oral Rehydration Salt (ORS) as compared to 66 percent rich women. Making women aware of their reproductive rights was more likely to boost other sectors as well. They found that if India were able to meet the unmet needs of planning in next five years, it is expected that it would save almost 150,000 maternal deaths. Many of the couples did not fulfill their desire to control fertility and family size which resulted in a huge population because of socio-economic and cultural barriers and these barriers violate the reproductive rights of many women resulting in
a large number of pregnancies, morbidity-mortality, unsafe abortion, infant mortality etc. They suggested that there was an urgent need for counseling of women and their husbands about family planning and post-partum care, child health care practices and also to continuous breastfeeding up to six months, etc. which helped to achieve ‘human rights’ for all.

K. Ringhein, J. Gribble, M. Foreman (2011) in their work discussed integration of family planning with maternal and child health care. They found that economic growth and development in some countries was achieved by providing family planning and MCH together because it saved time, money and lives. About 215 million women who were not using any contraception did not want to become pregnant. They suggested that the integrated programme must be designed in such a way that poor women and women from backward areas use them more efficiently because they lack access to maternal and child health services and hence a greater need for these services.

Patience Aseweh Abor et al. (2011) they discussed about the socio-economic determinants of maternal health services utilization in Ghana. They found that most of the women undertake antenatal care. However, other healthcare services like postnatal care, institutional delivery, and prenatal care has low level of usage. They further said that utilization of healthcare services are influenced by the age of women, type of birth, education of mother, economic condition and religious affiliation. At the conclusion they said there are many factor other than medical factors, mainly responsible for the differences in use of maternal health services by women.

H. Nair, R. Panda (2011) in their paper examined the quality of maternal health care in India under the National Rural Health Mission. They said that India contributed almost a quarter of global mortality and morbidity. They said that health care was not in a good shape in all public health centers and this was one of the major road blocks towards enforcing quality care in maternal health. They concluded that although the quality of maternal health care showed some improvement in the last decade, India was still far behind all emerging economies in terms of good quality healthcare and sustained use of maternal health care services throughout the country. They said that though National Rural Health Mission (NHRM) had completed almost five years the
result was not satisfactory. So there was a need for further research to access the impact of NRHM on maternal health.

**D. K. Iyer, F. Kuriakose (2012)** in their article talked about the importance of maternal education on infant health. They said that approximately 60 per cent of the population component of women (15-49 years) and children (under 15 years). A little less than two-third of our population faced illness, ill-health, and death, while in the cycle of pregnancy and post-natal period of survival and development. They pointed out that maternal education emerges as the most influencing factor for child health care. They suggested investment in female education as it was directly linked to the child and mother health.

**A. M. S. Jamal, N. Ahmad (2012)** presented a picture of the health condition of women in India in terms of malnutrition. They pointed out that health of women is of special importance as it affects the health of the entire family. If women are malnourished, anemic and suffer from other health problems, the incidence of maternal mortality will be high as a consequence child mortality will also be high. They showed that there was a wide gap among rural-urban women's health condition in terms of Body Mass Index (BMI) and anemia. Finally, they suggested that there is a need for more serious concerns about the women health and a dire need of some more effective health care schemes with the existing schemes.

**Amiri A., Gerdtham U-G. (2013)** in his study revealed that reproductive, maternal, newborn and child health is the key to economic development in the world. They said that the linkages of health and development ran in one direction remained an old concept. They cited that the commission on macroeconomics and health laid stressed on the causality that existed in both directions. Based on Granger Causality test they have found that the relationship in health and Gross Domestic Product (GDP) ran in both directions reflecting the dominant form of link between health and development. They further said that in low-income countries the causality ran from GDP to Health relative to high-income countries.

**Erdal E., Yetkiner I.H. (2013)** in their paper they have used the Granger causality test to test the direction of linkages between health and income. They found that the dominant form of causality between income-health is bidirectional. One way causality is also found in low-income countries but the links of causality are not similar for
different countries. Finally, they concluded that the causality between income and health generally run from income to health in low-income countries while in high-income countries it runs from health to income.

**S. Banerjee, P. John, S. Singh (2013)** in their paper stated that there were various socio-economic and political barriers in Sundarpahari and parts of Poreyahat in Godda District which increased risks related to pregnancy. They found various lapses in the health system, yet the government has started cash-incentive scheme Janani Suraksha Yojana (JSY), home deliveries in the district continued because of the factors, such as unavailability of healthcare facility at nearby places, the absence of transport facility, improper referral system. They further said that these factors emerged as a major contributory factor to maternal deaths in these areas. Finally, they suggested that there should be a government funded, free maternal and child health care service centers at the rural level with permanent ANM, 24*7 transport facilities, and Emergency Obstetric Care (EmOC) facilities.

**A. deka (2014)** in her work on maternal deaths in Assam said that maternal deaths in Assam remained high, despite the improvement in maternal health care in rural Assam. She pointed that the state had the highest number of maternal deaths. She found many factors responsible for these deaths were nutritional deficiencies, poor living conditions, age at pregnancy, inadequate healthcare system etc. She concluded that despite a significant focus on institutional delivery, there was a need to improve the status of women in their families which often affects women autonomy and well-being.

**C. Sodhi, A. Rabbani (2014)** examined the universalization of health service system in India. They pointed out that by adopting an insurance-based model, India could attain universal health care access. They concluded that the transformation of Indian health care towards the insurance-based system of access by enlisting the services of private sector seemed misguided. They marked that even if we concede the insurance-based system, it will be the way towards universalization of health care services, but to move on such a route without improving the primary care and public provisioning care, it would be futile.

**M. D. Gupta, V. R. Muraleedharan (2014)** suggested reform of government health care system instead of implementing the insurance-based system of health care. They
argued that in large parts of the country the health system was functioning poorly because of under-funding and poor management. They concluded that it was a better option for India to improve the functioning of healthcare services that were directly under control of the government rather than to implement some health insurance-based policy under the control of private providers.

M. Akram (2014) emphasized on maternal health in India. He said that though maternal mortality was declining continuously, it was still very high in India as compared to develop and some developing countries. He observed that health centres were not working properly due to underfunding and lack of management. He suggested government must increase fund for health care, and availability of health centres must be made according to the population density. The faraway public health care centres forced people to go for private medical care which increased out-of-pocket expenditure. He concluded that government required making some improvement in health policies with existing ones.

R. K. Singh (2014) in his later to Hindustan Times said that the women in UP bear more family planning burden despite the surgeries being comparatively less complicated for men. Although the cash reward for the male is almost double if he goes for the sterilization surgery than to the women, yet the 93 percent of procedures were conducted on women.

M. Nagla (2014) in her paper talked about the right to health, especially for women. She observed that most of the women didn't even know about their rights such as the right to decision to conceive a child, right to use different family planning methods, right to breastfeeding and nuances of sex-selective abortion etc. She further said that due to lack of awareness about their right to health, women faced many health problems during or after the pregnancy. She concluded that women needed an urgent attention to their own freedom and human ethics.

K. R. Nayyar, L. Bhat (2014) in their work discussed about the social determinants of maternal and child health in India. They pointed out that social exclusion and inequalities in health care, and issues of social dignity when women come to the institutions for birthing, were the main social determinants of maternal and child health care. They found that not only access to health care facilities were more restricted for lower caste women, but they were also treated more rudely and
subjected to more indignities at the hospitals. They further said that the ability to pay
determined the level of care a birthing woman received. They suggested for some
more effective maternal health programmes along with improving the existing
programmes.

A. Hiwale, A. Choudhary (2014) discussed the maternal health care utilization
among the social groups in Madhya Pradesh. They found that the utilization of full
ante-natal care (ANC) was very low in comparison to partial ante-natal care (ANC) in
Madhya Pradesh and it varies among social groups and within the areas of living
namely rural and urban. They pointed out that the utilization of ANC varied by
education among women of different social class. Utilization of ANC was
comparatively lower among SCs and STs as compared to women of OBCs. They
concluded that lower education and poverty among social groups resulted in less
utilization of maternal and child health care in Madhya Pradesh. They suggested an
improvement in the general socio-economic condition of these social groups of
Madhya Pradesh. Government could implement some strategy to empower these
under-privileged groups of society by facilitating education and health care for them.

A. Sayeed (2014) in his paper explained the maternal and child health in India. He
said that development of any society can be measured by the quality of healthcare
delivery services, particularly maternal and child health (MCH). He said that women
were half of the human wealth and today's children are tomorrow's assets. Thus health
of women and children mattered a lot in building a healthy nation. He concluded that
there were considerable achievements in our efforts to improve the health status of
women and children, such as reduction in fertility rate, IMR, MMR, in spite, of which
India remained among the unhealthiest countries of the world. He suggested for
implementation of the programmes to restructuring of all the existing policies and
programmes for achieving a good health standard. The health budget would need to
increase by a factor of three to five times.

S. C. Sheltar (2014) in her paper talks about the maternal health among the Dharwad
district rural women. In her paper, she said that the health and development had a vital
link and development did not depend only on economic growth. Women constitute
nearly half proportion of every population. Hence the health of women had its own
importance in the developmental process. Women are custodians of family health.
She pointed out that India contributed about a quarter of all maternal deaths worldwide. According to the available data, almost 80 per cent of all pregnancy and child related deaths were related to unsafe deliveries and abortions, of which most were occurring among the poor rural women. She finally concluded that the existing health care system in rural areas did not adequately meet the basic needs of pregnant women. She suggested an increase in the education level among rural women to wiping out the shortage of medicines and trained staff and increase awareness among people about emergency transport.

N. Siddiqui (2014) in her paper talked about the maternal and child health in Uttar Pradesh. She pointed that the level of health problems varied from one country to another, one reason to another. She explained the condition of health care in rural Uttar Pradesh and found that the high-tech. medical facilities are bound only to some selected urban areas. She tried to show the impact of ASHA on the health of child and mother. She explained that the education level had a significant effect on the maternal and child (MCH) health, and the education level of ASHA also had an effect on the MCH service delivery. Further, she pointed out that the age of mother was also a major contributor to the better health care of the child and the mother. Finally she concluded that ASHA's were imparting health services in the community especially in rural areas, but still, there is a need to get more satisfactory results.

S. Sharma (2014) in her article to the Hindustan Times stated that for achieving universal healthcare there was a need to create human resources and healthcare infrastructure in the country to cater to the huge mass of the population. She pointed out that in India the government spending on healthcare was very low compared to the developed and some developing countries. Of the total healthcare spending, government spending on healthcare is just 1.16% of 4.1% of its GDP. She said that the doctor-to-population ratio and the availability of health care infrastructure were also very unacceptable in the country to meet the demand of such ambitious programme. She concluded that to achieve universal healthcare it was very necessary to develop healthcare manpower and healthcare infrastructure.

K. E. Thorpe (2015) in his article said that India had fallen victim to non-communicable diseases (NCD's). India had the largest number of younger workforce in the world, but how productive can those people be if they suffer from illness and
poor health at their younger age. He said that government spending on health care in India was only 1.86 per cent of GDP and the union budget 2015 followed the same pattern of health care spending. He suggested for primary prevention, early screening system, and a strong health care infrastructure.

V. L. Falco, J. Khaneeja et al. (2015) in their article examined maternal health under the Indira Gandhi Matritva Sahyog Yojna (IGMSY). They pointed out that India was well short of meeting the millennium development Goals (MDGs). They observed that India's high maternal mortality ratio and infant mortality rate were due to lack of diagnosis and limited access to health care. They also observed that the IGMSY scheme worked poorly since its launch because the beneficiaries were unaware of the benefits of the scheme. They suggested imparting of awareness and establishment of implementation cells and emphasized on the government need to commit to the realization of the right to maternal entitlements of all women.

Sajedinejad et al. (2015) discussed about the maternal mortality. They pointed out that there are many distant macrostructural factors affecting maternal mortality. In their study Education, private sector and trade, and governance were found to be the most crucial factors associated with maternal mortality. In the conclusion, they said that to overcome the maternal mortality burden it requires, reallocation of health resources, education, attention to the expansion of the private sector.

H. R. Gautam, H. L. Sharma (2015) in their article said that universal health care was the main function of the central and state governments, which could improve with a better healthcare infrastructure. They said that India still spent only 1 percent of its GDP on health care. They found that the health care expenditure in rural areas was increasing as compared to urban areas. They showed that hospitals charges had gone up by 454 percent in rural India compared to 378 percent in urban India. They said that distance between healthcare facilities and rural people were the key factor in dipping cases of hospitalization in rural India.

D. Shetty (2015) in his article said that there was no silver bullet for health care in India. He said that India cannot improve its healthcare delivery without improving its medical education. India's biggest bottleneck in healthcare was the shortage of skilled manpower in health care sector. He pointed out that India's maternal and infant mortality were equal to those of Sub-Saharan African countries. He suggested
conversion of the district headquarters hospitals into teaching hospitals where local people and local students join medical education and serve their local population. Further, he suggested that instead of building medical institutions like All India Institute of Medical Science (AIIMS), we should create 300 bed super specialty hospitals in the areas where there was no super-specialty hospital.

S. K. Ramachandran (2015) in her article said that India is however far behind to achieve fifth Millennium Development Goal (MDG). But it seems confident of meeting the target for Total Fertility Rate (TFR) decline. She further said that TFR reduction in 9 high focus states out of 11 states showed that family planning programmes are on the right track. Finally, she concluded that there is a need to expand the choices and allow women more control over their reproductive rights.

Times of India (2015) reported that in Uttar Pradesh the number of malnourished children had increased. According to the latest monthly progress report, only 2,466 children in Agra were severely malnourished, but the number increased to 10,851 when 1.41 lakh children were weighed on ‘vajan divas’ (weight day). These numbers of malnourished children posed a serious question on the role of state's nutrition programmes. A survey report from union ministry women and child development reported that in 2013 only 9.4 % children were malnourished in the country. Based on this percentage, the number of malnourished children in the Uttar Pradesh should have been 23 lakh but official statistics from states nutrition mission showed that the number of malnourished children was 1.58 lakh.

K. Goel, R. Khera (2015) in their article emphasized on the utilization of public health care facilities in north India. They pointed out that public healthcare infrastructure is missing in north Indian states. The existing health infrastructure was not well equipped and poorly staffed with low levels of attendance of healthcare providers and patients. They said that this will force the poor patients to go for the private healthcare providers, results in high out-of-pocket expenditure. They pointed out that the spending under the NRHM the rural healthcare system has translated into better health care system. They concluded, that in-spite of the improvement in the public health care infrastructure in northern states, the level of utilization of public health care services is very low.
Arun J.V., Kumar D. (2015) in their paper entitled, causality between public health expenditure and economic growth in BRICS countries pointed out that there is a causality from per capita GDP to per capita health expenditure. Further, they said that there is no any causality is found between per capita health expenditure and per capita GDP. They have used the Granger causality test to check the causal relationship between the two variables. Finally, they concluding that economic growth is an important factor for health and recommended to increase the allocation for healthcare for bringing down the out-of-pocket expenditure especially for the deprived section of the countries.

Amiri A. (2016) in his paper he discussed the impact of child health on economic growth. The study is based on the Granger causality test. He pointed out that generally, we believe that the links between health and economic development runs only in one direction but this is not like so what exactly happens. He further said that the direction of causality between health and income is bidirectional and this is the dominant form of causality between the two. One way causality generally runs GDP to health mostly happen in low-income countries and reverse in high-income countries. Finally, he concluded that the causality reflects the fact that the effect of income on health is stronger in low-income countries comparatively to high-income countries.

Desmond- Hallman, S. (2016) in her article she said that across India malnutrition is the major cause of death for roughly half the 1.3 million children who die before their fifth birthday each year. She said that malnutrition cause 2-3 percent reduction in a country’s GDP. She forced on nutrition-specific programmes with nutrition-sensitive programmes to curtail the burden of undern-nutrition.

Chen W., Clarke J.A., Roy N. in their paper they argued that the world has experienced an impressive improvement in wealth and health. They said that the IMR has declined by 50 percent. They raised the question that, whether the health gains arising from wealth growth? Or a healthier population enabled growth in wealth? They measured health in terms of IMR and wealth in terms of GDP per capita. To test the links between health and wealth they have used the Granger causality test. They found that for middle-income countries the causality is generally consistent with those for the all selected countries. They also pointed out that there is also some signs of
noncausality between health and wealth. Finally, they concluded that it is clear that causal links between IMR and GDP per capita do differ as the level of GDP per capita changes.

Research Gap:

After reviewing a number of research paper, books, and other literature related to my work I have found that lot of work has been done on health in India especially on women and child. All the studies are based on a small part of the country thus we have chosen to explore a major part of the country and we have selected 15 major states of India. There are so many studies that reveal the effect of health on economic growth but we find that there is a dire need to find out the direction of the cause of health on economic growth. Here in my study, we have found the direction of the cause of health and economic growth in 15 major Indian states i.e. whether health cause economic growth and/or economic growth cause health.

1.6- Objectives of the study:

The leading objectives of the present study lie in the maternal and child health care system in Indian states. The research is conducted in the context of major Indian states. The study ha the following objectives:

(1) To analyze the inter-state disparities in primary health care system.
(2) To describe the performance of maternal and child healthcare indicators in India.
(3) To measure the relationship between maternal and child health.
(4) To study the impact of economic growth on health.

1.7- Hypothesis:

(1) H1- there is a uniform primary health care system in Indian states.
(2) H2- there is no difference in maternal and child healthcare indicators performance.
(3) H3- maternal and child healthcare are not closely related.
(4) H3- Economic growth does not have any relationship with the health.
1.8- Methodology and Data Source:

The present research is based on secondary data available from various government agencies. Among the important sources of data are publication of District Level Household (DLHS) 1, 2, 3 and 4, National Family Health Survey (NFHS) 1, 2, 3 and 4, Rapid Survey on Children (RSoC) 2013-14, Health Management and Information System (HMIS), data published by World Development Reports (WDR), Ministry of Health and Family Welfare (MoHFW), New Delhi etc. Apart from these various non-published literatures is also available on the subject matter and has been used in collecting and analyzing the data.

The states have been taken as unit of analysis and interpretation. Statistical tools like compound annual growth rate (CAGR), percentage, mean, regression and correlation, T-test/ F-test, and Granger causality test have been used to analyse inter-state variations and to establish relationship between various maternal and child health indicators and economic growth.

1.9- Study Area:

To present a more clear picture of maternal and child health care in India, major 15 states have been selected, namely, Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, West Bengal. The study is focused primarily on the post reform period. Most of the maternal and child health care indicators chosen by national and international institutions, such as infant mortality rate (IMR), neo-natal mortality (NNM), maternal mortality rate (MMR), ante-natal care (ANC), post-natal care (PNC), safe delivery (SD), institutional delivery (ID), immunization and vaccination, malnutrition among and children etc. have been taken up in this study for the purpose of analysis.

1.10- Limitations of the study:

All the statistical tools and techniques are applied at state level. Study is based on the secondary data mainly from the government published reports. Time series data on each and every healthcare variable is not available thus for the analysis we use infant mortality rate as an indicator of health standard. Data on maternal mortality is not available in a continuous manner thus for the sake of more fruitful result we use IMR
as a proxy of MMR because both have strong positive Correlation. Consequently, non-availability of reliable data makes it difficult to carry out a meaningful analysis of the ground situation pertaining to maternal and child health.