Chapter II

REVIEW OF LITERATURE AND CONCEPTUAL FRAME WORK

2.0 Introduction:

In order to understand the problem of maternal mortality and research issues involved in it, the following section is an attempt to review the existing literature. The reviews have been classified under different heads. They are:

- Millennium Development Goal and MMR
- Human Development and MMR
- Economic Development and MMR
- Issues in MMR
- Reasons for MMR

2.1 Millennium Development Goal and Maternal Mortality Rate:

The literature related to millennium development and related to MMR have reviewed and presented in this section.

Joanna Morrison in her work on “Disabled Women’s Maternal and Newborn Health Care in Rural Nepal: A Qualitative Study” has analyzed that disabled persons are not only estimated to constitute fifteen percent of the world’s population but also a disproportionate percentage of the world’s poor. The author has analyzed that, maternal health indicators for Nepal are improving and it is likely that national programmers of free institutional delivery care and cash transfers have contributed to increase in institutional deliveries. Lack of knowledge about disabled women presents a potential barrier to increasing institutional deliveries and improving quality care. The author suggests that, most disabled women in Nepal are single and they may face increased stigma, being disabled, single and childless. Health workers could benefits from training integrated into existing curricula. Nepal is making good progress towards meeting the maternal health millennium development goals. However issues
of quality, cost and lack of family support still prevent women from having an institutional delivery. (Morrison & Budhathoki, 2014).

Li Du in his work entitled “Trends in Maternal Mortality in Resident VS. Migrant Women in Shanghai, China, 2000-2009: A Register Based Analysis”, analyzed that maternal mortality remains a major challenge to health systems, even though a sharpened focus on reduction of maternal mortality has become a defining part of MDG5. The author has analyzed maternal mortality and causes of death in pregnant women in Shanghai between 2000 and 2009, comparing resident and migrant women. The number of live births from 84,898 in 2000 to 1,87,335 in 2009. The author suggests that strengthening professional training and health education to improve the awareness and capability of obstetrics and physicians, and increasing the awareness and ability of self-help health care among pregnant women were another guarantee of safer motherhood. (Li Du & Zhang, 2012).

Rhoda Suubi Muliirain in her work on “Occupational Exposure to Maternal Death: Psychological Outcomes and Coping Methods Used by Midwives Working in Rural Areas”, has analyzed that many developing countries are still unable to meet the goals of reducing maternal deaths for reasons including severe shortage of human resources, lack of complete health care practitioners, lack of transportation, unpredictable availability of essential medicines, electricity outages and lack of necessary infrastructure. The author has observed that, the majority of maternal deaths occur in rural areas, where the majority of the population lives. The author suggests that maternal deaths will become a less frequent occurrence in Uganda and other parts of the developing world where high maternal mortality currently persists (Muliirain & Bezuidenhout, 2015).

E.Koch in his work entitled “Women’s Education Level, Contraceptive Use and Maternal Mortality Estimates” has analyzed the MDGs proposed by the United Nations. Research on maternal mortality estimates and the determinants that positively influence maternal health outcomes is the key to adequate evidence based on public health interventions. The author observed that, the case of maternal death, the accuracy of estimating methods strongly depends on the quality of official records, total fertility rate, percentage of childbirth delivery by skilled attendants, women’s education level and per capita income. The author suggests that, it is important to note that when
official records of maternal deaths and live births are reliable and readily available, these should be preferred over indirect estimates of MMR. MMR considering women’s education level should be preferred to monitor progress on maternal health in the context of the Millennium Development Goals (Koch E & Aracena P, 2014).

Shahna Arps in her work entitled “Threats to Safe Motherhood in Honduran Miskito Communities: Local Perceptions of Factors that Contribute to Maternal Mortality” has analyzed global initiatives to lower rates of maternal death. The author has observed that, maternal health recognized by men, women, healthcare workers and midwives in Miskito communities were inadequate as also health services, poverty, and gender inequality. The author argued that, development efforts that improve quality of life could mitigate sources of local insecurity by increasing access to nutritious food, clean water and health care services. The author suggests that, knowledge and perceptions can be used to identify specific factors that contribute to poor health outcomes in regions where maternal mortality rates remain high (Arps, 2009).

Audrey Prost in her work on “Women’s Groups Practicing Participatory Learning and Action to Improve Maternal and Newborn Health in Low-Resource Settings: A Systematic Review and Meta-Analysis”, has analyzed that maternal mortality rates remain high in many low-income and middle-income countries. Different approaches for the improvement of birth outcomes have been used in community-based interventions, with heterogeneous effects on survival. The author has observed that, women’s groups as a core strategy to complement efforts have made an effort to improve safer motherhood and newborn care through better midwifery and obstetric care (Audrey Prost & Seward, 2013).

Rajesh Kumar Rai in his work entitled “Utilization of Maternal Health Care Services among Married Adolescent Women: Insights from The Nigeria Demographic and Health Survey, 2008” has observed that, global leaders have reemphasized the reduction of maternal mortality as the fifth target of the MDGs, and addressed the concerns a in reducing the number of teenage pregnancies and incongruously high birth rate among adolescents. The author has explained that, women’s education, husband’s education, wealth and region of residence were documented as the most important factors associated with maternal healthcare service utilization. The author
concludes that programmes to improve maternal healthcare have not succeeded in overcoming the socio-economic obstacles in the way of adolescents utilizing maternity services (Rai & Singh, 2012).

Ruth Iguiniz-Rornero in her work on “Data Do Count? Collection and Use of Maternal Mortality Data in Peru, 1990-2005, and Improvements Since 2005”, has analyzed the World Health Organization, the feminist movement and other civil society organizations that have placed maternal health and mortality on the international agenda. There have been many international and national initiatives to reduce maternal mortality. The author has observed that, the United Nation (MDGs) was committed to reduce the maternal mortality ratio by 75 percent by 2015. Authors analyzed that national maternal mortality ratio reduced from 318 deaths per 1,00,000 live births in 1980 to 298 in 1990 and 173 in 2000, MMR from 265 maternal deaths per 1,00,000 live births in the 1996, to 185 deaths per 1,00,000 live births in the 2000 and to 103 deaths per 1,00,000 live births in the 2009. The author suggests that, a fall in maternal mortality ratios and women’s increased use of maternity services by women. But efforts to improve data quality must continue to ensure that initiatives to prevent maternal mortality can be monitored and services improved. (Iguiniz-Rornero & Ruth, 2012).

Gorik Oorns in his work entitled “A Global Social Contract to Reduce Maternal Mortality: The Human Rights Arguments and the Case of Uganda” has analyzed reducing maternal deaths by 75 percent between 1990 and 2015 as one of the main goals of Millennium Development Goal 5. The author observed that, maternal mortality is a human rights violation, proclaiming that most instances of maternal mortality are preventable, and that preventable maternal mortality is a health, development and human rights challenge that also require the effective promotion and protection of the human rights of women. The author suggests that the government of Uganda and the international community are failing to comply with their right to health related obligations towards the people of Uganda (Oorns & Mulumba, 2013).

Jean-Pierre Unger in his work entitled “International Health Policy and Stagnating Maternal Mortality: Is There a Causal Link?” has analyzed that maternal death and disability remain the leading cause of healthy life years lost for women of reproductive age in low income countries. The author has analyzed that failure of
progress on maternal health has been toned down by donors and national governments with claims of uneven achievement. The author has concluded that without policies to make health systems in the global south more publicly oriented and accountable, the current standards of maternal health care are likely to remain poor, and maternal deaths will continue to affect women and their families at an intolerably high level (Jean-Pierre Unger & Sen, 2009).

Joyce K. Edmonds in her work on “Determinants of Place of Birth Decisions in Uncomplicated Child Birth in Bangladesh: An Empirical Study” has analyzed the decision of women as to where to stay and deliver during pregnancy. Her perception of labour progress, the availability of transportation at the time of labour and how close by a midwife was to the household were independent predictors of facility based on skilled birth attendants. The author implies that the availability of delivery services does not guarantee use and instead specific considerations and conditions during pregnancy and around the time of birth influence the preventive health seeking behaviour of women during childbirth (Edmonds & Sibley, 2012).

Sarah Thomsen in her work entitled “Promoting Equity to Achieve Maternal and Child Heath” has analyzed maternal and child mortality rates. The targets for two of the eight millennium development goals remain unacceptably high in many countries. The author observed that, India accounts for more than 20 percent of the global burden of maternal mortality and the largest number of maternal deaths for any country. The government has allotted the majority of resources in pulling the poorest out of poverty through an increasing focus on reducing the equity gap between the rich and the poor, rural and urban, men and women, old and young, and minority and majority groups (Thomsen & Hoa, 2011).

Joanna H. Raven in his work on “What is Quality in Maternal and Neonatal Health Care?” has observed that ensuring access to and availability of skilled birth attendance and essential obstetric care that is effective and good quality are key strategies to help reduce maternal mortality. The author has shown that quality of care that is specifically important for maternal and newborn health were identified and a rights based approach was included, adopting care that is evidence based, consideration of the mother and baby as interdependent and the fact that pregnancy is in a healthy state (Joanna H. Raven & tang, 2012).
Michelle Dynes in her work entitled “Strengthening Maternal and Newborn Health in Rural Ethiopia: Early Results from Frontline Health Works Community Maternal and Newborn Health Training” has analyzed women and their newborns as most vulnerable during birth and the early postnatal period, making the presence of a skilled health provider during this an essential element in reducing maternal and newborn deaths. The author concludes that Community Maternal and Newborn Health (CMNH) was successful in transferring knowledge to health extension workers at the CMNH trainer level and in guiding team members at the community level (Michelle Dynes & Carpenter, 2013).

Kunchok Gyaltsen in the work entitled “Reducing High Maternal Mortality Rates in western China: A Novel Approach” has highlighted how institutionalization of deliveries has accomplished a great deal in most of China. It is unlikely to further lower maternal mortality in the poor, under resourced rural western regions to levels found elsewhere in China in the next several years. The author suggests that locally tailored approaches may be essential to reduce maternal mortality in rural areas of western China and other countries with substantial regional, socio-economic and ethnic diversity (Kunchok Gyaltsen & Gipson, 2014).

Deependra Kaji Thapa in his work entitled “Women’s Autonomy and Husbands’ Involvement in Maternal Health Care in Nepal”, has analyzed low utilization of maternal health care services during pregnancy, at delivery and in the postnatal period contributes to high maternal mortality. The author observed that dismal level of women’s autonomy is considered a factor that contributes to poor maternal health service utilization among Nepalese women. The author suggests that programmes to improve women’s autonomy and at the same time increase the husband’s involvement should be carefully planned. The author conclude that stimulating inter-spousal communication could also improve maternal health practices and outcomes by reducing disagreement between the spouses on matters pertaining to maternal health (Thapa & Niehof, 2013).

Ha T.H. Nguyen in his work entitled “Encouraging Maternal Health Service Utilization: An Evaluation of the Bangladesh Voucher Program”, has analyzed that for the ultimate goal of reducing maternal and neonatal mortality, many countries have recently adopted innovative financing mechanisms to encourage the use of
professional maternal health services. The author observes that therefore support voucher programme expansion are for targeting the economically disadvantaged to improve their use of priority health services. The Bangladesh voucher programme is a useful example for other developing countries interested in improving maternal health service utilization. The author suggests that vouchers, which provide demand and supply side incentives, are a promotive method to improve maternal health service utilization. Bangladesh’s experience can be a useful example for many developing countries to reduce maternal mortality and achieve the Millennium Development Goal (Nguyen T H & Nancy L. Sloan, 2012).

Laura Malajovich in her work entitled “Budget Transparency on Maternal Health Spending: A Case Study in Five Latin American Countries”, has analyzed the challenges civil society organizations in Latin America faced in assessing budget transparency on government spending on specific aspects of maternity care, in order to hold them accountable for reducing maternal deaths. The author has observed that, there are many ways to improve maternal health. There is agreement at the global level that ending maternal mortality requires a comprehensive, integrated package of essential interventions and health services, including family planning, safe abortion services, antenatal care, skilled birth attendance and postpartum care. The author has observed that, civil society, in particular sexual and reproductive health and rights organizations that have real life knowledge and programmatic experience in addressing the barriers to achieving maternal health need to be able to play an essential role in tracking their governments’ progress in preventing maternal deaths (Laura Malajovich & Castagnaro, 2012).

Birgit Kvernflaten in her work entitled “Meeting Targets (or) Saving Lives: Maternal Health Policy and Millennium Development Goal 5 in Nicaragua” has analyzed MDG 5 on improving maternal health. She has criticized their maternal health for being just about skilled attendants at birth and not about the comprehensive approach needed to fulfill its maternal and reproductive health agenda. The author has observed that, Matagalpa province has among the highest rates of maternal mortality in Nicaragua. The author has observed that, maternal health was incorporated into the MDG five aims to reduce maternal mortality by 75 percent between 1990 and 2015. The author concludes that the intention to improve maternal health is unquestionable. The pressure to reach targets has had unintended, negative implications for the
relationship between women, the local volunteers and the formal health system, which needs to be addressed (Kvernflaten & Birgit, 2013).

Jan J. Hofman in his work entitled “Experiences with facility based maternal death reviews in Northern Nigeria” has analyzed that MDG related to maternal health requires not only increasing coverage and access of key interventions but also improvement in the quality of care. The author has observed that, maternal deaths in health facilities, also sometimes called maternal death audit, assists in identifying important quality of care problems. The author has analyzed that maternal deaths were not useful and can be omitted unless Nigeria makes millennium development a modifiable event and introduces a system of maternal death surveillance and response (Hofman & Mohammed, 2014).

2.2 Human Development and Maternal Mortality Rate:

The literature related to human development and related to MMR have reviewed and presented in this section.

K. Navaneethan in his work entitled “Utilization of Maternal Health Care Services in Southern India”, has analyzed the use of maternal health care services that reduce maternal and child mortality and improves the reproductive health of women. The author has used number of multivariate logistic regression models to estimate the effect of covariates on the utilization of maternal health care services. The author analyzed that, infrastructure and health care facilities in rural areas should be improved in order to reduce disparities in the use of maternal health care services (Navaneethan & Dharmalingam, 2002).

Jerker Liljestrand in his work entitled “Socio-Economic Improvements and Health System Strengthening of Maternity Care are Contributing to Maternal Mortality Reduction in Cambodia” has analyzed how twenty five years after the launch of the safe motherhood initiative, global estimates of maternal mortality ratios are finally on the decline in many countries. The author observes that, the maternal mortality ratio fell from 472 per 1, 00,000 live births in 2006 to 2010. The author shows how maternal survivals are showing success when the key ingredients are in place, but they do not automatically transmit to other areas of sexual and reproductive health. The author observed that, maternal deaths according to the Ministry of Health
since 2009 based on the MMR of 206 per 1,00,000 and birth estimates from the census data, shows twenty to thirty percent of maternal deaths (Liljestrand & Sambath, 2012).

Carla Abouzahr in her work entitled “New Estimates of Maternal Mortality and How to interpret them: Choice or Confusion?” has analyzed two independent exercises to estimate the level of maternal mortality that took place during 2010. The author has observed the impact that HIV has had on maternal mortality, especially in Sub Saharan Africa. The author points out, the differences in the estimate of 1990, the starting point with IHME estimating a 1990 maternal mortality ratio of 320 per 1,00,000 compared with the United Nations estimate of 400 per 1,00,000. The author observed that, record of deaths among women of reproductive age derived from civil registration is often the first step in conducting a confidential enquiry into maternal deaths (Abouzahr, 2011).

B.R. Sharma in his work entitled “Forensic Considerations of Pregnancy Related Maternal Deaths: An Overview” has defined pregnancy related maternal death as the death of a woman resulting from or related to her own pregnancy condition. The author has observed that, according to India, pregnancy related complications account for the death of 301 women per 1,00,000 births despite all the maternal health programmes and improvement in primary health care system. The author suggests improving and monitoring of maternal health and determining the extent of underreporting of maternal mortality (Sharma & Gupta, 2009).

Eric O Udjo in his work entitled “Estimating Maternal Mortality and Causes in South Africa: National and Provincial Levels” has highlighted the safe motherhood initiative was partly to reduce maternal mortality. The author observes that, maternal deaths decreased by 47 percent between 1990 and 2010 and provided the following maternal mortality ratios. The author explains that, in Sub Saharan Africa it was 920 in 1990 and 900 in 2005, South East Asia was 450 in 1990 and 300 in 2005, developed regions was 11 in 1990 and 09 in 2005. The author suggests that, though maternal mortality declined between 2007 and 2011, the level remains high and South Africa is unlikely to achieve the MDG of reducing maternal mortality by 2015 (Udjo & Lalthapersad-Pillay, 2014).
Ndola Prata in his work entitled “An Innovative Approach to Measuring Maternal Mortality at the Community Level in Low-Resource Setting Using Mid-Level Providers: A Feasibility Study in Tigray, Ethiopia” has analyzed an estimated 3,58,000 women die each year from complications of pregnancy and child birth. The author observed that, statistical and analytic approaches alone are not sufficient for the development of targeted interventions to reduce mortality or for the measurement of progress towards internationally established targets. The author shows that, in 2008, the maternal mortality ratio for Ethiopia was 470 per 1,00,000 live births. This paper data used during the 12 months of the project, 856 births and 164 deaths were reported, of which 24 of the deaths were in women aged 12 to 49. Data collected through the study estimated a maternal mortality ratio of 467 per 1,00,000 live births. The author observed that, MMR has the potential to severe as a blueprint for a low cost, practical method of measuring vital events, leading to community based solutions to improve maternal health (Ndola Prata & Gessessew, 2012).

Karin Elebro in her work entitled “Misclassified Maternal Deaths among East African Immigrants in Sweden” has analyzed maternal mortality in low-income countries as a problem attributable mainly to non-existent registers and mis-classification. The author observed that, maternal mortality is the death of a woman during pregnancy or the puerperium within 42 days of delivery from any cause related to or aggravated by pregnancy. The author observed that, Sweden has one of the lowest maternal death nations in the world, from 2-6 deaths per 1,00,000 live births. The authors according to western countries have reported an increased risk of maternal and prenatal mortality among African immigrants, compared to native born residents. The author observed that, maternal mortality among immigrants from the heart of Africa living in Sweden, using snowball sampling verify whether any such case identified had been classified as a maternal death in the cause of death (Karin Elebro & Moussa, 2007).

Retesh Mistry in his work entitled “Women’s Autonomy and Pregnancy Care in Rural India: A Contextual Analysis”, has observed that, maternal mortality is a leading cause of adult female deaths in India especially in rural areas. The author used models of multilevel logistic regression to test predictors of each pregnancy care outcome separately. The author suggests that, child bearing occurs safely, healthily, and equitably in rural India. Improvements must be made in women’s autonomy and
education and village economic and health infrastructure development (Retesh Mistry & Lu, 2009).

Zekiye Karacam in his work entitled “Effects of Unplanned Pregnancy on Maternal Death in Turkey” has analyzed that 87 million unplanned pregnancies occur each year, and 41 million unplanned pregnancies result in labour. The author analyses that, unplanned pregnancy plays an important role in maternal deaths in Turkey. The author observed that, unplanned pregnancy is an important health problem in Turkey because the rate of unplanned pregnancies is high and unplanned pregnancy increases maternal deaths in the country. The author observes that, women with unplanned pregnancy at an early stage have to try to decrease the negative effects of unplanned pregnancy on maternal health and to improve prenatal, prenatal and postnatal care (Zekiye Karacam & Gercek, 2011).

Visseho Adjiwanou in his work entitled “Gender Inequality and the Use of Maternal Health Care Services in Rural Sub-Saharan Africa” has analyzed reducing maternal mortality by three quarters as their millennium development goals. The author observes that, Sub Saharan Africa carries the heaviest burden of maternal mortality: about a quarter of a million women die of pregnancy complications and four million children die before they turn five years. The author suggests that, governments have to step up their efforts to improve women’s health and reduce maternal mortality (Adjiwanou & Grand, 2014).

Henry V. Doctor in his work entitled “Using Community Based Research to Shape the Design and Delivery of Maternal Health? Services in Northern Nigeria” has analyzed the maternal mortality ratio as appreciably higher than the national average, with 2008 estimates for the north of over 1,000 per 1,00,000 live births for the southern region. This paper study of the 2006 census shows Katsina, Yobe and Zamfara had a population of 5.8, 2.3 and 3.3 million. The author’s analysis, involved establishing statistical associations between maternal characteristics, antenatal case and delivery characteristics. The author suggests that, the next generation should benefit in the target areas with information relevant to their own health and their pregnancies (Henry V Doctor & Cometto, 2012).

Christine Ekechi in her work entitled “Maternal and Newborn Health Road Maps: A Review of Progress in 33 Sub-Saharan African Countries 2008-2009” has
shown how reduced maternal mortality are producing results in a growing number of countries including forty percent of countries with very high maternal mortality ratios, in Sub-Saharan Africa. The author has observed that, progress made in planning and programming the gaps identified has to be addressed before any significant reduction in maternal mortality can be achieved. Finally governments will be able to implement improved plans that support services to effectively reduce maternal and neonatal mortality (Christine Ekechi & Bernis, 2012).

Alison Dembo Rath and Indira Basnett in their work entitled “Improving Emergency Obstetric Care in A Context of Very High Maternal Mortality: The Nepal Safer Motherhood Project 1997-2004” observed that, supply side interventions are insufficient for reducing the high level of maternal deaths. It is also important to bring positive changes in the attitude of people towards the use of maternal services particularly among the lower castes and the ethnic groups (Alison Dembo Rath & Cole, 2007).

Subha Sri B, Sarojini N and Renu Khanna in their work entitled “An Investigation of Maternal Deaths Following Public Protests in A Tribal District of Madhya Pradesh, Central India” observed that, state and district health officials should be involved for proven means of preventing maternal deaths to be implemented. The author analyzed that, pregnant women deliver in poor quality facilities without first ensuring quality of care and strengthening the facilities to cope with the increased number of patients loads. Lack of accountability, discrimination against and negligence of poor women, particularly tribal women, are a close link between poverty and maternal death (Subha Sri B & Khanna, 2012).

Rhoda Suubi Muliira and Mathie C Bezuidenhout in their work entitled “Occupational Exposure to Maternal Death: Psychological Outcomes and Coping Methods Used by Midwives Working in Rural Areas” observe that, maternal deaths are common in rural areas of developing countries because of the shortage of human and other resources needed for maternity services. The authors observed that, when maternal deaths occur, midwives often experience emotional distress while striving to perform their work. The authors observed that, midwifery educational programmes and work settings need to understand the importance of maternal deaths from the
midwives’ perspective and their ability to cope with this detrimental experience (Bezuidenhout C & Mathie, 2015)

Hora Soltani, Frankie Fair and Sevil Hakimiin in their work entitled “Reduction in Global Maternal Mortality Rate 1990-2012: Iran As a Case Example” observed that, the reduction of maternal mortality has been suggested through education of women, access to care including antenatal care, access to facilities and timely transfer when required. The authors analyzed that, skilled attendance at birth, particularly well trained midwifery and medical personnel, alongside adequate health facilities have also been shown to be important factors in reducing maternal mortality. The authors conclude that, important for reducing maternal mortality is access to family planning including legal, safe abortion services (Hora Soltani & Hakimi, 2015).

Adetoro A. Adegoke, Malcolm Campbell and Martins O. Ogundeji in their work on “Place of Birth or Place of Death: An Evaluation of 1139 Maternal Deaths in Nigeria” analyzed that more deaths occurred in women who were pregnant for the first time than for any other number of pregnancies, with 49.9 percent dying within 24 hours after childbirth or abortion and 30.9 percent dying after 24 hours but within 72 hours after childbirth or abortion. The authors observed that, ensuring adequate training, recruitment and development of midwives and others with midwifery skills, providing health education and information to the public with regard to reproductive health and ensuring the development and dissemination of a policy regarding attendance at birth by only health workers who have midwifery skills will prevent MMR (Adetoro A & Campbell, 2013).

Hayley Pierce, Tim B. Heaton, John Hoffmann in their worked entitled “Increasing Maternal Health Care Use in Rwanda: Implications for Child Nutrition and Survival” observed that, the largest increases in delivery at a health center occur among less educated, less wealthy and rural Rwandan women. In addition, delivery at a health center is associated with better nutritional status and survival and the benefit is not diminished following the dramatic increase in use of health centers. The authors observed that socio-economic disparities persist because the more advantaged are better able to benefit from innovations in health care. These flexible recourses include, knowledge, money, power, prestige and beneficial social connections that can all be utilized to avoid or minimize poor health (Hayley Pierce & Hoffmann, 2014).
2.3 Economic Development and Maternal Mortality Rate:

The literature related to economic development and related to MMR have reviewed and presented in this section.

Guillermo Cruces, Pablo Gluzmann and Luis Felipe Lopez Calva in their work entitled “Economic Crises, Maternal and Infant Mortality, Low Birth Weight and Enrollment Rates: Evidence from Argentina’s Downturns” observed that, there is an inverse relationship between maternal mortality rate and economic development. As economic development increases the probabilities of decrease in maternal mortality rate are significant. The authors observed that, in the process of development, public expenditure on health and education are also crucial in reducing maternal deaths (Guillermo Cruces & Calva, 2012).

Ce Shen and John B. Williamson in their worked entitled “Maternal Mortality, Women’s Status, and Economic Dependency in Less Developed Countries: A Cross-National Analysis” analyzed that, women’s status, as measured by indicators such as level of education relative to men, age at first marriage, and reproductive autonomy, is a strong predictor of maternal mortality. The authors observed that, economic dependency, especially multinational corporate investment has a detrimental effect on maternal mortality that is mediated by its harmful impacts on economic growth and the status of women (Shen & Williamson B, 1999).

Claudia Hanson in her work entitled “Maternal Mortality and Distance to Facility-Based Obstetric Care in Rural Southern Tanzania: A Secondary Analysis of Cross-Sectional Census Data in 2,26,000 Households” has analyzed, the reasons for maternal mortality. The author identified distance as a reason for maternal mortality. For her arguments and analysis she calculated the distance between the place of health facility and the location of the pregnant women. It is confirmed from the study that maternal mortality rate increases as distance increases between the facility and the person. Hence, distance between facility and place of pregnant women is also a reason for maternal death (Hanson & Cox, 2015).

Glen Mola and Barry Kirby in their work entitled “Discrepancies between National Maternal Mortality Data and International Estimates: The Experience of Papua New Guinea” analyzed the reasons for maternal deaths and found that maternal
mortality rate not only depends on distance, it also depends on the nature of the facilities provided at hospitals. The authors observed that, maternal mortality rate varies based on type and nature of hospitals like, public and private hospitals (Mola & Kirby, 2013).

David Musoke, Elizabeth Ekirapa-Kiracho, Rawlance Ndejjo and Asha George in their work entitled “Using Photovoice to Examine Community Level Barriers Affecting Maternal Health in Rural Wakiso District, Uganda”, observed that, maternal mortality rate has been significantly associated with transport, distance, timely treatment and quality of care. At the same time, it is important to note that domestic violence, use of contraceptions, teenage pregnancy, unclean water, poor sanitation and lack of women’s income have also played a considerable role in the determination of maternal mortality rate (David Musoke & Ndejjo, 2015).

Farid Midhet, Stan Becker and Heinz W. Berendes in their work entitled “Contextual Determinants of Maternal Mortality in Rural Pakistan” observed that, maternal mortality is high in rural areas which have poor access to health services. The authors observed that, distance to the hospital and lack of prenatal care as major determinants of maternal mortality. The authors analyzed that, better staffing of peripheral health facilities and improved access to essential obstetric care could reduce the risk of maternal mortality (Farid Midhet & Berendes, 1998).

Farzadi F, Ahmadi, Shariati, Alimohamadian M and Mohamad K in their work entitled “Women’s Health: Explaining the Trend in Gender Ratio in Iran over Half a Century (1956–2006)” observed that, Iran indicates a preponderance of men aged 55 years and older, and therefore an increase in the male: female ratio. Paradoxically, it is believed that life expectancy is currently higher in women. The authors analyzed that, computations of life expectancy are based on the conditional probability of death, and hence are not affected by death rates in the past. The authors analyzed that, improvement in women’s health have not been accompanied by a population gender ratio in favour of women (Farzadi F & Alimohamadian M, 2010).

Visseho Adjiwanou and Thomas Le Grand in their work entitled “Gender Inequality and the Use of Maternal Health Care Services in Rural Sub-Saharan Africa” observed that, reducing infant mortality by two-thirds and maternal mortality by three quarters the millennium development goals four and five, respectively may not be
reached in many low income countries partly because of under-utilization of maternal healthcare services. The authors observed that, of the 30 million women who get pregnant each year in the sub-region, eighteen million give birth at home without the assistance of a health professional. Governments, in their efforts to improve women’s health and reduce maternal mortality, should also consider interventions that limit the negative role and the extent of socio cultural and gender norm interventions which appear to lead to a greater and more effective use of existing health services. The authors suggested that not only to strengthen the education of girls, but also to combat directly gender inequality in all aspects of women's lives and at all levels (Adjiwanou & Le, 2014).

Carolyn Coburn, Michael Restive and John M Shandra in the work entitled “The African Development Bank and Women’s Health: A Cross-National Analysis of Structural Adjustment and Maternal Mortality” observed that, the International Monetary Fund (IMF) structural adjustment is associated with higher levels of maternal mortality using cross-national data for samples of low and middle income nations. A number of explanations have been put forward to explain why structural adjustment should be associated with higher levels of maternal mortality. The authors analyzed that, Sub-Saharan Africa has the largest number of maternal deaths in the world and is not on track to meet the United Nations millennium development goal target rate of a seventy-five percent reduction in maternal mortality by 2015. They argue that these that these research avenues are of great importance (Carolyn Coburn & Shandra, 2015).

Sarah Mc Tavish, Spencer Moore, Sam Harper and John Lynch in their work entitled “National Female Literacy, Individual Socio-Economic Status, and Maternal Health Care use in Sub-Saharan Africa” observed that Sub-Saharan Africa (SSA) has the highest level of maternal mortality of any world region with 920 deaths per 1,00,000 live births. The Millennium Development Goals (MDGs) have identified improving maternal health and reducing maternal mortality by three-quarters as a key global health and development objective. Access to maternal health care is one target goal in improving maternal health since access to reproductive health care is crucial in reducing the likelihood of infections, hemorrhage, and mortality due to complications of pregnancy and childbirth. The authors observed that, national policies that are able to address female literacy and women’s status in Sub-Saharan Africa, such as
programmes that cover costs for tuition, school uniforms and textbooks, may encourage female education and in the long-run help reduce income-related inequalities in maternal health care use (Sarah Mc Tavish & Sam Harper, 2010).

Nadia Akseer, Ahmad S Salehi, Moazzem Hossain S M and Taufiq Mashal M in their work entitled “Achieving Maternal and Child Health Gains in Afghanistan: A Countdown to 2015 Country Case Study” observed that, one of the poorest countries of the world, Afghanistan has been ravaged by incessant conflict and war among various factions for well over three decades. The authors observed that, the soviet invasion of Afghanistan in 1979 led to mass displacement of over four million people to neighboring countries, mainly in Pakistan, and subsequently to a series of events that continue to affect the entire region. With the shift in development assistance and global priorities away from Afghanistan, the country faces huge economic and security challenges. The authors suggests that, maternal and child mortality in this country are among the highest in the world and will need concerted action for change (Nadia Akseer & Moazzem Hossain S M, 2016).

Ce Shen and John B. Williamson in their work entitled “Maternal Mortality, Women's Status, and Economic Dependency in Less Developed Countries: A Cross-National Analysis” observed that, globally approximately 5, 85,000 women died from pregnancy related causes in 1990. Rates of maternal mortality show a greater disparity between rich and poor nations than do any of the other commonly used public health indicators, including infant mortality rate, the indicator which is most often taken as the primary measure of comparative disadvantage. The author observed that, a modest increase in aid could substantially improve maternal mortality rates if it were spent on improving the access of poor women to health services (Shena & Williamson, 1999).

Kvernflaten Birgit in her work entitled “Meeting Targets or Saving Lives: Maternal Health Policy and Millennium Development Goal Five in Nicaragua”, has observed that, MDG five on improving maternal health has been criticized for being just about skilled attendants at birth, and not about the comprehensive approach needed to fulfill its maternal and reproductive health agenda. The author observed that, the intention to improve maternal health is unquestionable, the pressure to reach targets has had unintended, negative implications for the relationship between women,
the local volunteers and the formal health system, and needs to be addressed (Birgit & Kvernflaten, 2013).

Kerry Jane Hickson in his work entitled “The Contribution of Increased Life Expectancy to Economic Development in Twentieth Century Japan” has observed that, Japan’s successful industrialization were similarly impressive improvements in health. During the twentieth century life expectancy increased by 36 years, 28.5 of which occurred between 1947 and 2000. Increase in life expectancy is an important manifestation of improvement in human welfare. The author observed that, the magnitude of health gains, and their contribution to growth indicate that the role of the health care systems ought to be reconsidered more favorably. The author analyzed that, the return from health care spending is likely to be many times that of alternative public and private spending, which is evidenced by the magnitude of twentieth century health augmented GDP per capita growth (Hickson & Kerry, 2009).

Ranjit Kumar Dehury and Suhita Chopra Chatterjee in their work entitled “Dissociated Reality Vis-a-Vis Integrative Planning of AYUSH in Maternal Health Program: A Situational Analysis in Jaleswar Block of Balasore District of Odisha, India” observed that, mainstreaming of AYUSH and revitalization of local health traditions is one of the innovative components of the National Rural Health Mission (NRHM) in the state of Odisha, India. The authors observed that, there is huge scope for integrating AYUSH in maternal health programmes under the ongoing National Rural Health Mission, the full potential of which is yet to be exploited (Chatterjee & Chopra, 2016).

Kieron Barclay and Mikko Myrskyla in their work entitled” Maternal Age and Offspring Health and Health Behaviors in Late Adolescence in Sweden” studied the relationship between maternal age at the time of birth and a variety of health behavior and measures of health amongst young adults in contemporary Sweden. The authors observed that, health behavior may play an important mediating role in explaining the long-term health of those born to younger and older mothers (Barclay & Myrskyla, 2016).

Stephen Obeng Gyimaha, Baffour K. Takyib and Isaac Addai in their work entitled “Challenges to the Reproductive Health Needs of African Women: On Religion and Maternal Health Utilization in Ghana” observed that, there has been
renewed interest in studies that investigate other aspects of women’s reproductive health, in particular those relating to maternal and child health. African countries struggle to achieve their stipulated reductions in maternal and child mortality levels by two-thirds, by 2015 as part of the millennium development goals, the need to examine the complex set of macro- and micro-factors that affect maternal and child health in the region cannot be underestimated. The authors suggest that with reference to theoretical framework some policy issues are to be highlighted (Stephen Obeng Gyimaha & Addai, 2006).

2.4 Issues in Maternal Mortality Rate:

The literature related to health, education and institutional related to MMR have reviewed and presented in this section.

2.4.1 Reviews on Health:

Marge Barer in her work entitled “Maternal Mortality and Morbidity: Is Pregnancy Getting Safer for Women?” has analyzed developing countries have dramatically reduced maternal mortality since 1987, including Egypt, Honduras, Malaysia, Sri Lanka and Thailand. The author observed that, there is no longer any disagreement that good nutrition and effective treatment during pregnancy for chronic conditions such as anemia, diabetes, HIV, TB and malaria delivery with a skilled attendant and access to timely emergency obstetric care, when required, are the best ways to avoid unnecessary deaths and morbidity in women and newborns (Berer & Marge, 2007).

Carlos Grandi, Jose L.Tapia and Viviance C. Cardoso in their work entitled “Impact of Maternal Diabates Mellitus on Mortality and Morbidity of Very Low Birth Weight Infant: A Multicenter Latin America Study” authors analyzed that maternal deaths are significantly high among the women having diabetes mellitus compared to normal women. The author observed that, there is a need to give equal importance to treat diabetes mellitus along with maternal related issues (Carlos Grandi & Cardoso, 2015).

Ana Carla L. Granja and Aurelio Gomes in their worked entitled “Adolescent Maternal Mortality in Mozambique” observed that the main causes of adolescent
death were malaria, abortion of pregnancy. The authors classified as avoidable 75 percent of all maternal deaths. Health staff in peripheral and central hospitals tends to underestimate the gravity of disease in premee and young pregnancies, and this leads to delay in adequate treatment and correct management. The authors analyzed that, deaths among adolescents may be preventable through community education programmes, provision of adequate prenatal care delivery antenatal and safe abortion services, strengthening emergency obstetric care of health institutions, and training of staff in adolescent specific health care (Granja & Gomes, 2001).

Iqbal H Shah and Lale Say in their work entitled “Maternal Mortality and Maternity Care from 1990 to 2005: Uneven but Important Gains” observed that maternal health care has been predominantly identified as instrumental in reduction of maternal mortality rate irrespective of countries and their native features (Shan & Say, 2007).

Balmi Dao, Emmanuel Otolorin, Patricia P.Gomez, Catherine Carr and Harshad Sanghvi in their work entitled “Preparing the Next Generation of Maternal and Newborn Health Leaders: The Maternal and Newborn Health Champions Initiatives” observed that, health campaigns have been identified as leadership initiatives in promotion of health care services. The authors analyzed that, the precautions to be taken at the time of pregnancy is a very important step in reducing maternal deaths. The authors observed that, health campaigns for maternal and newborns are vital in reducing maternal deaths (Dao & Gomez, 2015).

Jaime Haver, William Brieger and Jeremie Zoungrana in the work entitled “Experiences Engaging Community Health Workers to Provide Maternal and Newborn Health Services: Implementation of Four Programs” observed that a paucity of skilled health providers is a considerable impediment to reducing maternal, infant and under-five mortality for many low-resource countries. The authors analyzed that, community-based interventions were complementary to facility-based interventions as part of a comprehensive approach to increase access to basic health services (Jaime Haver & Zoungrana, 2015).

Parul Christian and Joanne Katz in their work entitled “Risk Factors for Pregnancy-Related Mortality: A Prospective Study in Rural Nepal” observed that, the risk factors of mortality related to pregnancy for the first year post-partum in a cohort
of 25,580 pregnancies. The authors analyzed that, larger mid-upper arm circumference was also associated with a lower risk of death in the late period. The authors conclude that, dysentery and pre-eclampsia had a higher risk of death in the last trimester. Mortality in both periods included night blindness, strenuous work activity and cigarette smoking (Parul Christian & Lee Wu, 2008).

B.C. Ozumba and E.E. Nwogu-Ikojo in the work entitled “Avoidable Maternal Mortality in Enugu, Nigeria” analyzed studied and identified maternal characteristics and avoidable factors for maternal mortality. Their major avoidable factors were substandard care, delay in seeking care, financial constraints, delay in recognizing a problem, lack of blood, lack of drugs and industrial strike action by health workers. Avoidable factors are yet to be prevalent in maternal deaths in Nigeria. The authors suggest that, health sector reforms to address issues of health financing, with the goal of providing universal health insurance, should be pursued. Staff needs training and their welfare should be addressed. Measures to address this should be implemented to help lower the very high maternal mortality rates (Ozumba & Ikojo, 2008).

Moszynski P. in his work entitled “Sierra Leone’s Maternal Health Reforms Fail to Deliver Free Treatment” has analyzed that, the introduction of its free health care initiative, that includes free pregnancy and childbirth care and free services for breastfeeding mothers, has resulted in more women accessing antenatal care and delivering their babies in health facilities. The author observed that, increase of women accessing health services, is related to specifically increasing the pay of health workers and providing them additional training (Moszynski, 2011).

2.4.2 Reviews on Education:

Karlsen S, Say I. and Souza in their worked entitled “The Relationship Between Maternal Education and Mortality Among Women Giving Birth in Health Care Institutions: Analysis of the Cross Sectional WHO Global Survey on Maternal and Perinatal Health” studied the relationship between maternal education and maternal mortality among women giving birth in health care institutions and investigated their association with maternal age, marital status, parity, institutional capacity and state health care investment. The authors observe that more attention should be given to the social determinants of health when devising strategies to reduce maternal mortality (Karlsen S & Souza, 2011).
Sonia Silvestrin, Clecio Homrich da Silva and Vania Naomi Hirakata in their work entitled “Maternal Education Level and Low Birth Weight: A Meta-Analysis” authors analyzed that, there are several determinants of Low Birth Weight (LBW) and one of the most relevant is maternal social status, which has a close and direct association with maternal education level. The authors analyzed that, in developed countries, mothers in unfavorable socio-economic status and with low education level present greater vulnerability to having LBW children. Finally, it should be emphasized that the authors’ hypothesis, which led to the performance of this meta-analysis, was formulated in recent years. However, the selection of included articles covers an almost three-decade period, which certainly contributes to the results. (Sonia Silvestrin & Vania N Vania, 2013).

Bharat Randive, Miguel San Sebastian, Ayesha De Costa and Lars Lindholm in their work entitled “Inequalities in Institutional Delivery Uptake and Maternal Mortality Reduction in the Context of Cash Incentive Program, Janani Suraksha Yojana: Results from Nine States in India” observed that, universal access to skilled birth attendance and emergency obstetric care are crucial to reduce maternal mortality. The authors observed that, inequality in access to institutional delivery persists; it has been reduced since the JSY programme began. The authors observed that, a higher maternal mortality with a slower pace of decline in the poorest areas as well as inequalities in the availability of emergency obstetric care facilities during the cash incentive program suggest that, the cash incentive alone is not sufficient to achieve equity in maternal health outcomes. The authors suggest that, cash incentive programmes need to be supported by the provision of quality health care services including emergency obstetric care and improved targeting of disadvantaged populations for the cash incentive programme could be considered (Bharat Randive & Ayesha De Costa, 2014)

2.4.3 Reviews on Institutional:

Ruttimann D and Loesch S in their worked entitled “Mortality and Morbidity in the City of Bern, Switzerland, 1805-1815 With Special Emphasis on Infant, Child and Maternal Deaths” analyzed that, the causes of maternal death was inhibited by
difficulties in translating early nineteenth century nomenclature into the modern medical system. The authors observed that, an explicit interdisciplinary value for various fields including both the humanities and natural sciences, reported here represents the complete age and sex structure of a decreased population. The authors analyzed that, mortality was high in winter and spring, and decreased in summer to a low level with a short rise in August. The present levels of maternal mortality in adolescents are unacceptably high. Adolescents had 30 percent higher risk of institutional maternal mortality ratio than non-adolescents. The authors conclude that, recognizing the existence of avoidable factors in the majority of maternal deaths must be the first step prior to action in designing and implementing reproductive health care programmes adequate for young people (Ruttimann & Loesch, 2012).

Debora Barnes- Josiah and Cynthia Myntti in their work on “The Three Delays as a Framework for Examining Maternal Mortality in Haiti” observed that, their study identify the highest rates of maternal mortality as due to delay in deciding to seek appropriate medical help for an obstetric emergency, reaching an appropriate obstetric facility and receiving adequate care when a facility is reached. The authors analyzed that, expanding the coverage of existing referral networks, improving community recognition of obstetric emergencies, and improving the ability of existing medical institutions to deliver quality obstetric care, are all necessary. Improving the quality and scope of care available at existing medical facilities will have the greatest impact in reducing needless maternal deaths (Debora Barnes-Josiah & Augustin, 1998).

Shiv D. Gupta in his work entitled “Maternal Mortality Ratio and Predictor of Maternal Deaths in Selected Desert District in Rajasthan: A Community Based Survey and Case Control Study” has analyzed population based estimates of MMR, and evaluated the primary causes of maternal deaths and factors associated with excess risk of maternal mortality. The author has observed that Rajasthan institutional deliveries have risen from 25 percent to 56 percent in the rural areas. A scheme of cash transfer for institutional delivery especially for poor households along with emergency transport has been successfully implemented. Given the commitment of the government to improve maternal outcomes, the results of this study support continued efforts to increase deliveries in health care facilities (Shiv D Gupta & Gupta, 2010).
2.5 Determinants of MMR:

The literature related to determinants for MMR have reviewed and presented in this section.

Saseendran Pallikadavath in his work entitled “Antenatal Care: Provision and Inequality in Rural North India” has shown how reducing maternal mortality and morbidity has been a major focus for the developing world since the launch of the safe motherhood initiative in 1987. The author observes that, antenatal care is considered to represent a cost effective component of maternity services as per “safe motherhood” interventions to reduce mortality and morbidity. The author analyses, maternal mortality in four states of India: Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh ranging between 450 and 700 per 1,00,000 live births. The author observes that, antenatal care components are an effective way to prevent a range of pregnancy complications and reduce maternal mortality. The author indicates how substantial limitations of the health services in overcoming socio-economic and cultural barriers are accessed (Saseendran Pallikadavath & Stones, 2004).

Monica Akinyi Magadi in her work entitled, “A Comparative Analysis of the Use of Maternal Health Services between Teenagers and Older Mothers in Sub-Saharan Africa” observed that, the maternal mortality ratio in Africa remains the highest in the world and despite ongoing efforts, the average ratio actually increased from 870 per 1,00,000 live births in 1990 to 1000 per 1,00,000 live births in 2001. The author analyzes and explores country level variations in the observed differences between teenagers and older women. The author analyzed that, the gap in maternal health care between teenagers with different characteristics is more pronounced in countries with relatively better maternal health care. The author observes that, the socio-economically disadvantaged sub-groups may have benefited least from improvements in maternal health care in such settings (Monica Akinyi Magadi & O.Obare, 2007).

Bharat Randive in his work entitled “Inequalities in Institutional Delivery Uptake and Maternal Mortality Reduction in the Context of Cash Incentive Pragram, Janani Suraksha Yojana: Results from Nine States in India”, has analysed how the proportion of women giving birth in health institutions has increased sharply in India since the introduction of the cash incentive programme- Janani Suraksha Yojana (JSY)
in 2005. The author observes that, universal access to Skilled Birth Attendance (SBA) and Emergency Obstetric Care (EmOC) are crucial to reduce maternal mortality. The author’s analysis of interventions in the countdown to 2015 from 54 countries revealed that SBA coverage was the least equitable of twelve key maternal and child health interventions; SBA coverage between the wealthiest and poorest population quintiles differed by 52 percent. According to the author, in the last decade (2003-2013) India has experienced a steady decline in its MMR from 301 to 178 maternal deaths per 1,00,000 live births. This paper focuses on, nine low performing states Rajasthan, Madhya Pradesh, Chhattisgarh, Bihar, Jharkhand, Uttar Pradesh, Uttarakhand, Orissa and Assam. Finally, the paper suggests that the cash incentive may succeed in reducing the disparities in maternal health outcomes (Bharat Randive & Lindholm, 2014).

Asha George in her work entitled “Persistence of High Maternal Mortality in Koppal District, Karnataka, India: Observed Service Delivery Constraints” has analysed that the main causes of maternal deaths in rural India were: anemia (24 percent), puerperium (23 percent), abortion (12 percent), eclampsia and toxemia (10 percent), puerperal sepsis (10 percent), malnutrition of child leading to death of the mother (7 percent) and unclassified symptoms (14 percent). The author observed that, administrators and politicians cannot address these service delivery constraints that go beyond budgeting. Increased allocations for health care and valuable gains made for realizing safe motherhood in terms of community mobilization and health works trust will be squandered (George, 2007).

Jocelyn Dejong in her work entitled “The Safety and Quality of Childbirth in the Context of Health Systems Mapping Maternal Health Provision in Lebanon” has analyzed global efforts to reduce maternal mortality including the MGDs which have focused on increasing trained attendance at childbirth. The author observed that, the most recent nationally representative population-based survey for Lebanon fielded in 2004, indicates that maternal mortality is relatively high given the middle-income level of the country and high death rate, although statistics suggest it is likely to be much lower. The author analyzed that of the 108 eligible private hospitals in Lebanon, 46 responded and thus the private hospital response rate was 43.0 percent. The author observed that, the processes and problems in referral between hospitals for maternal
health have not been researched in Lebanon, and indeed internationally, this has been identified as an area in need of further research (Jocelyn Dejong & Osman, 2010).

Sabu S. Padmadas in his work entitled “Caesarean Section Delivery in Kerala, India: Evidence From a National Family Health Survey” shows how attention is given to ensure safe motherhood and child survival as a part of the multifaceted concept of reproductive and child health. The author observes that, international statistics indicate that caesarean section rates in hospital deliveries varied between 32 percent in Brazil and about 7 percent in Czechoslovakia in the 1980s. The author analyzed that, the forthcoming record of NFHS in India, which has tried to place more emphasis on information related to caesarean section births would further elucidate trends in caesarean section procedures in Kerala (Sabu S. Padmadas & Sajini B. Nair, 2000).

Stephanie L. Smith in her work entitled “Political Contexts and Maternal Health Policy: Insights from a Comparison of South Indian States”, has analyzed India’s success as crucial: The country accounts for the largest number of maternal deaths in the world, approximately 56,000 of an estimated 2,87,000 in 2010. The author analyzed that, maternal health policy and implementation in the public sector because such a significant role in providing access to services for women from lower socio-economic groups in India. The author has traced the unprecedented attention at the highest level of government and significant resources dedicated to maternal mortality reduction followed under the umbrella of the sweeping national rural health mission policy introduced in 2005. The author observes that, India and experiences of other countries with decentralized health governance and the historical conditions shaping its impacts should feature centrally in future analyses of the health policy process (Smith & Stephanie, 2014).

2.6 Conclusion:

Tackling maternal mortality rate is one of the burning research issues among research across the globe. In this chapter, the intensive and extensive literatures were reviewed to find out the relationship between development process and MMR, factors influencing on MMR, current issues and challenges regarding MMR across the countries. In this section, the literatures were reviewed on Millennium Development Goals (MDGs) and MMR, human development and MMR, economic development and MMR, issues in MMR and reasons for MMR. Majority of the studies have proved
the negative relationship between MMR and HDI and also with GDI. So of them found that there is a positive relationship between MMR and GII. Some studies have found that, there is inverse relationship between health, life expectancy and MMR, MMR and GDP. However, these studies have not computed the relationship by segregating the countries based on the level of development. At the same, time there is no studies on establishing relationship of MMR with human and economic development at the world, nation, and sub-nation and at the regional level with integrated approach. Hence, the present study is a new attempt to estimate the relationship of maternal mortality with human and economic development.
References:


