6.1: SUMMARY:

Chapter-I deals with introductory aspects of the central theme of the study, containing the statement of the problems, objectives, research questions, database and methodology, review of relevant literature on the line and also organization of the work. It is also important to note that various sources of maps and other primary and secondary information and method of collecting primary and secondary data are clearly mentioned in this chapter.

Chapter-II deals with the general Geographical description of the study area. The first part of this chapter covers physical background, mainly location, Physiography and drainage, climate, soil and vegetation, while the second part is developed to analyse the themes on cultural environment of the study area like population and ethnic structure, settlement and transport etc. Accordingly to 2001 census 23 administrative districts out of these, five districts namely Dhubri, Nagaon, Lakhimpur, N.C. Hills and Karimganj have been selected for the study. Dhubri lies in the western Brahmaputra valley, Nagaon in the central Brahmaputra Valley, Lakhimpur in the eastern Brahmaputra valley, and North Cachar Hills in the eastern Hills Zone and Karimganj lies in the Barak Plain. The study area cover an area of 13,408 Km$^2$ representing 17.0 percent of
Assam landmass and a population of 6,037,038 (2001) according for 22.64 percent of total population of Assam.

The state of Assam which includes selected five districts occupies a unique position amidst complex geologic and physiographic makeup for northeast region of India. It is bordered on the north by the Arunachal Pradesh on the south Meghalaya and the hills of the Manipur, Mizoram and Tripura, on the east side by the Arunachal Himalayas and Nagapatkai hills ranges and the west by the plains of Bangladesh and west Bengal. The state is bounded by highlands of hills and plateau on the three sides except western one, where the Brahmaputra valley merges with the Gangetic plain. The Geological formation of Assam belongs to the Archean, Pre-cambrian, Tertiary and Quaternary periods.

The present physiographic configuration of Assam has taken its shape only during the geologically recent times. The geology and tectonic base of the state has given rise to a variety of landforms under varying climatic conditions and geomorphic processes.

The selected district of Assam lies in the region of monsoon climate of the sub-tropical belt. It enjoys heavy summer rainfall, winter drought, high humidity and relatively low temperature during the year. So for the special distribution of rainfall is concerned there is a marked variation within the district of Assam. The unique physiographic features of the State and its surrounding mountain and hill ranges affect the areal distribution of rainfall. In general, the hill and foot hill receive more rainfall, Karimganj and Dhubri
district enjoys annual rainfall more than 300 cm on an average. On the other hand Nagaon and N.C. Hills receive relatively low rainfall due to its location on the leeward side of Meghalaya plateau and Karbi Hills.

Assam is well known for its rich forest resources. The variation in altitude, climate and soil types have a significant influence on the luxuriant growth of wide variety of trees, herbs, shrubs in the study area along with Assam. The study area under forest covers 14.3 percent of the total forest coverage of the state. The vegetation of the plain is characterized by dense and mixed semi-evergreen, evergreen and wet deciduous types. The evergreen and semi-evergreen forests are found in the district of Lakhimpur, Nagaon, N.C. Hills and Dhubri. On the other hand, deciduous forests are found in the District of Dhubri and Nagaon. Apart from Dhubri district all other four districts viz. Nagaon, N.C. Hills, Lakhimpur and Karimganj have degraded scurbs.

Assam witnesses an alarming high growth rate of population during the present century. Such an alarmingly high growth rate is cause not only by natural growth, but by huge inflow of migrant from adjacent countries like Bangladesh and Nepal and other part of India.

Assam has a long history of peopling. It has witnessed several waves and streams of migration belonging to various racial groups from different directions since pre historical time. Broadly speaking, Assam has population of four racial traits 1) Proto – Austroloid, 2) Mongoloid, 3) Aryo – Mongoloid and 4) Aryo – Mongolo – Dravidial.
Although Hindus predominate the state’s population like most parts of the country, the overall pattern of religious composition of the selected districts deviated from the state and national one. Hindus, Muslims and Christian are the main religious groups of the state as well as the selected districts.

Although Assam is still much lagging behind in transport and communication compared to other parts of the country, it is now served by all the modern transportation viz. road, railways, waterways and airways.

Chapter-III deals with the Ante natal care visit. The first Antenatal check-up should take second trimester of pregnancy. It also includes the provision that pregnant women must avail of at least three ANC visits, get at least one tetanus toxied (TT) injection and must take supplementary iron in form of IFA tables/Syrup daily for 100 days.

Percentage of ANC not taken women have found highest in N.C. Hills district both in RCH-1 and RCH-2. On other hand, lowest ANC not taken have found in Lakhimpur in RCH-1 and in RCH-2 it is found lowest in Karimganj district. Three and above times ANC visited women have found highest in Lakhimpur district and lowest in N.C. Hills both in RCH-1 and RCH -2. One TT injection given women during pregnancy were found highest in Lakhimpur in RCH – 1 and in RCH -2 it was found highest in Karimganj. Full ANC taken women in rural area in Rch-1 have taken highest in Karimganj and lowest N.C. Hills district while in RCH-2 highest percentage have found in N.C. Hills and lowest in Nagaon.
The percent of full immunization among SC/ST and other women in the selected district except Karimganj and Lakhimpur are low because of unwarness of ANC, low literacy, high Muslim population in Nagaon and Dhubri and poor transportation in hilly areas of N.C.Hills district. In respect of illiterate women, only a small portion has received full ANC mainly because of lack of awareness and ignorance.

The percentage of ANC not received women have found highest among the low standard of living women. The percent of ANC not receiving women have decreased with the increase of standard of living of women.

The place of delivery and the assistance received are crucial importance for both the mothers and the Children. The institutional delivery is very low in the selected districts both in RCH-1 and RCH-2. This is mainly because of poor transportation and lack of hospital facility in rural area. Home delivery has been found maximum in all the selected districts. Lack of utility of institutional delivery is the main cause of high home delivery in the study areas. Poor transportation and unavailability of hospital in rural areas are also another cause of high home delivery. Home delivery has been found very high in N.C. Hills and Nagaon districts.

The post delivery visit of the health institution within two week of delivery is essential. This check-up is found very less both in rural area and urban areas of the selected districts.
Chapter-IV: The immunization of children against six serious but preventable diseases namely tuberculosis, diphtheria, pertusis, Polio, tetanus and measles is the main component of child survival programme.

BCG vaccination given children have found higher in Dhubri, Nagaon and Lakhimpur. In N.C. Hills this is found very low because of less hospital facilities and inaccessibility of rural areas. DPT third dose given children have also found less in N.C. Hills. Polio 3rd dose given children have found less in of rural areas of the selected districts. It is observed that the percentage of Measles given children have found higher in RCH -1 than in RCH -2. The percentage of Measles given children have found very low in N.C. Hills district. In respect of full immunization of children, N.C. Hills district is very backward. This is because of inaccessibility of rural areas and lack of hospital facility.

Chapter-V: In this chapter information of field observation has been given. After the implementation of National Rural Health Mission (NRHM) in 2005 by the Govt. of India, maximum development have occurred in Antenatal care and child immunization in the state as well as the selected districts. Therefore, tremendous development have found in the field work i.e. in primary data taken in 2008.

In order to study the special pattern of overall Maternal health care development in rural and urban areas of the selected districts of Assam Z score method has been employed. It is observed from Z score that two districts namely N.C. Hills and Nagaon exhibit low level of ANC services both in rural
and urban areas, Dhubri district characterized by medium level and Lakhimpur and Karimganj show higher level of ANC services.

Z score method has also employed to find out the development of immunization in rural areas. It is observed from the Z score that two districts namely Nagaon and N.C. Hills exhibit low level of immunization services in rural areas, on the other hand, Dhubri and Lakhimpur show medium level, where as Karimganj district exhibit high level of immunization of children.
6.2 CONCLUSION:

The observation made in the work provide not only the present development status of Antennal Care and child immunization in selected districts of Assam, It also pulls out certain post-observational idea that needs the attention of both the future planners and researchers.

Major findings of the study:

1. It is observed from the above study that there has been significant variation between rural and urban in respect of ANC.

In rural areas due to illiteracy or low level of literacy women are ignorant about the need of health care practices and anti natal care. They even do not aware about the need of the ANC which helps to decline the maternal death during pregnancy. On the other hand majority of the urban dwellers are aware about the maternal health care services because of better infrastructure and communication. However, Nagaon and Lakhimpur have recorded increase in the percentage of women not receiving ANC by residence even in urban areas. This is mainly in case of the Muslim women due to the fact that they are illiterate and not exposed to modern life and thus they are not aware about the maternal health.

2. So far as the TT injection is concerned it is observed from the study that the urban areas recorded proportionately more women receiving TT
injection than the rural areas. There is also significant spatial variation in respect of TT injection received by pregnant women.

3. It has been observed that women who are illiterate they are unaware about the health care practices and the percentage of women not visited ANC is higher among them. The literate women are careful and their percentage is respect of ANC services is higher. Therefore literacy plays an important role in the maternal health care practices.

4. Like literacy Standard of living of the household also plays an important role in the health care practices. Better is the income of a family better will be the standard of living. So, pregnant woman of high income group families received more attention and take better ANC than the low income group families. From this study it reveals the fact clearly that there is significant variation in respect of women visited and not visited hospitals for ANC due to variation of the standard of living.

5. Among the SC/ST women who received two TT injections were found highest is Dhubri District (62 Percent) in RCH-1 while among other castes (RCH-2) highest percentage was found is Lakhimpur district (65 percent).

6. It is further observed that the increase of standard of living women institutional delivery has been found increased. Home delivery has also recording a decline among the high standard of living women. Among the high standard of living women home delivery assisted by untrained dais and other has been found lower.
7. Mother's education have vital role is immunization of children. The percentage of immunization has increased with increase of mother's education level. Home delivery, transportation problems and lack of hospital are another cause of less immunization in the selected districts specially in N.C. hills district of Assam.

These ideas are outline below in the form of observational side lines or suggestions for someone's Consideration.

The following suggestion are recommended for improving the existing status of maternal and child health care that may definitely help in a balanced development of the selected districts of Assam.

i) There is need to raise awareness among girls, Parents, Teachers and community leaders through school and community based programmes about the maternal and child health,

ii) Access to primary health care is improved by establishing required primary health centers in areas inhabited mainly by vulnerable population groups or in areas which have poor demographic indices. In N.C. Hills, Dhubri and Nagaon District more health centers are required in remote areas.

iii) More health workers are required in the remote and inaccessible areas like N.C. Hills.

iv) Mobile health clinic boats are essential for the remote areas of Dhubri and Nagaon District which are not accessible by roads.
v) Establish of more sub-centers with proper health facilities are required in the remote areas.

vi) The primary health centre’s (PHCS) should function as curative care centres and also provide preventive and promotive health care, while CHCs should provide backup curative, referral and patient facilities.

vii) State must be provided required funding under health sector allocated in plan proposals for sub-centres as well as primary health centres.

viii) There is an urgent need for making the health care institution at district level to be self-sustainable so that these institution can function in financially independent way to provide good and quality health care facilities.

ix) Suitable programmes under Continuing Medical Education (CME) should be planned involving community based organization (SHGs), youth clubs, Mahilas surestha sanghas, NGOs etc.). Village councils and Panchayats may be strengthened to pay a critical role in maternal and child health care.

x) Tele health services may be strengthened and through opening more information kiosks, connecting health centres on line, involving community based organizations, Particularly NGOs and Districts level Panchayat or Autonomous Development Councils.

xi) Strengthened Panchayat Raj institution by decentralization of primary health care through devotion of power and authority and adequate resources etc.
xii) Community based organizations may be strengthened for effective and efficient delivery of maternal and child health services as well as monitoring health care services.

xiii) Training to health personnel such as Anganwadi workers, Nurses, representatives of NGOs and other community based organization may be imported to promote community participation in maternal and child health services and improving the delivery of health care services.

xiv) Special programmes may be taken in areas where IMR and child mortality are high to provide an integrated packages of services for improving the capacity of the system to manage common childhood condition at field level.

xv) Prenatal and post-natal checkup may be ensured through providing public private partnership and mobilizing community.

xvi) Antenatal checkup may be improved through concerted efforts of Government and non-government agencies by launching special drives for health and nutritional education.

xvii) Imparting training to health personnel strengthening health centres in terms of improved health facilities, hiring services of qualified health professionals and mobilizing pregnant mothers for institutional delivery with professional assistance may be ensured to reduce the risks of maternal health. Thus, the present study is considered as a practical of the existing development of maternal and child health care scenario of selected districts of Assam and also as a vehicle for dispensing out the problems confronted by the community of the districts.