CAHPTER-I

INTRODUCTION

Overview of Assam

Assam is situated in the North East of India surrounded by Bhutan and Arunachal Pradesh in North, Bangladesh, Mizoram and Manipur on South, Nagaland on east and West Bengal and Meghalaya on west. Its geographical area is 78438 sq km. with a population density of 340(2001) per sq. km. The total population of Assam at 0:00 hours of 1st March 2001 stood at 26655528 as per the provisional results of the Census of India 2001. The capital of Assam is Dispur, a suburb of Guwahati in 1972. Its major towns are Guwahati, Dhubri, Barpeta, Dibrugarh, Tinsukia, Jorhat, Nagaon, Sivasagar, Silchar, Tezpur.

The mighty Brahamaputra River passes through 800 kms from Sadia in the North East to Dhubri in the western extremity. During its course, it has created some riverine areas (popularly called char areas.), which inhabited by a large number of populations comprising of mainly ethnic people in upper reaches and immigrants from east while East Pakistan (now Bangladesh) in lower reaches.

The Barak River passes through the southern districts. After the name of these two rivers the Assam has been divided in to two valleys i.e. "Brahamaputra valley" and "Barak Valley" with Borail Range in between the two. It has two hills

districts, N.C. Hills and Karbi-Anglong districts. There are some difficult areas viz *char* areas, tribal areas, tea garden areas, hill areas and forest village bordering neighboring states and countries.

Administrative Division:

The state of Assam has **27 districts** (including 4 new districts of BTAD) with Kamrup (Rural and Metropolitan) district being the most populous accounting 8.92 per cent to total population of the state. The population density is highest in the Nagaon district having 604 persons per sq.km. Whereas in the North Cachar Hills population density is only 38 persons per sq.km. The literacy rate is highest in Jorhat district (77.91 per cent) and is lowest in Dhubri district (49.86 per cent). *(Census 2001)*

There are Tribal (Bodoland, etc.) and Hill (Karbi Anglong and N.C. Hills) Autonomous Council in which Panchayati Raj system is not in force and most of the departments including Health & Family Welfare have been transferred by Govt. of Assam to be run by the Autonomous council. In the Hill districts Principal Secretary Autonomous Council is the Chairman of all health and family welfare committees (Society). In the plain district Deputy Commissioner is the Chairman of District Health & Family Welfare Society / other Committees. There are 219 development blocks, 2,490 Gaon Panchayats and 26,247 revenue villages. *(Census 2001)*

The vital statistics and Socio-demographic scenario of Assam

Background Characteristics	Data
Geographic Area (in Sq. Kms)	78438
Total population (Census 2001)	26655528
Population Urban	3439240 (12.90 per cent)
Population Rural	23216288(87.09 per cent)
Population Female (15-49 yrs) - Total	6574794
Population Female (15-49 yrs) – Urban	939909
Population Female (15-49 yrs) - Rural	5634885
Population (0-6 yrs) – Total	4498075
Population (0-6 yrs) – Male	2289116
Population (0-6 yrs) – Female	2208959
SC Population	1825949 (6.85 per cent)
ST Population	3308570 (12.41 per cent)
Male Population	13777037 (51.68 per cent)
Female Population	12878491 (48.31 per cent)
Decadal Growth Rate	18.85
Area (Sq.Km.)	78438
Population density	339
Literacy rate Total	63.25
Literacy rate – Male	71.28
Literacy rate – Female	54.61
Sex Ratio - Total	935/ 1000
BPL population	36.09 per cent. (1999-2000,Planning Commission Estimates)
Religion	Predominant-Hinduism, Islam, & Christianity
Language spoken	Assamese, Boro, Bengali, Hindi, English

Source: Census 2001

PUBLIC HEALTH INFRASTRUCTURE IN ASSAM

Sl	Health Facility	Number (*Source*- Assam Health Facility Survey, State Report-2007)
1.	Medical Colleges	3
2.	State Level Hospital	1 (MMC Hospital in Guwahati)
3.	District Hospital (DH)	20
4.	Sub Divisional Hospitals (SDH)	3
5.	CHC	93 (FRU-32)
6.	Block PHC	149
7.	State Dispensary (SD)	239
8.	Subsidiary Health Centre (SHC)	71
9.	Mini PHC	380
10.	Sub-Centre	4592
11.	B.Sc. Nursing Colleges	1
12.	GNM Training Centres	15
13.	ANM Training Centres	18

DISTRICT WISE HEALTH INFRASTRUCTURE IN ASSAM

Sl.No	Districts	Block PHC	Mini PHC	SHC	State Dispensary	Sub centre	Total
Upper Assam							
1.	Dibrugarh	6	12	0	9	236	263
2.	Jorhat	7	18	1	9	144	179
3.	Sibsagar	8	22	4	1	230	265
4.	Golaghat	5	27	2	5	154	193
5.	Lakhimpur	6	12	3	5	166	192
6.	Dhemaji	5	10	1	3	99	118
7.	Tinsukia	4	10	1	5	163	183
Total		**41**	**111**	**12**	**37**	**1192**	**1393**

Sl. No	Districts	Block PHC	Mini PHC	SHC	State Dispensary	Subcentre	Total
Central Assam							
1.	Kamrup Rural	13	23	0	27	350	413
2.	Kamrup Metro	1	8	0	14	5	28
3.	Nagaon	11	24	3	19	355	412
4.	Sonitpur	7	23	6	8	293	337
5.	Darrang	7	22	3	14	308	354
6.	Morigaon	3	3	6	13	117	142
Total		**42**	**103**	**18**	**95**	**1428**	**1686**
Lower Assam							
1.	Nalbari	7	35	5	15	211	273
2.	Bongaigaon	6	18	4	14	119	161
3.	Goalpara	5	16	2	12	146	181
4.	Dhubri	7	10	5	13	275	310
5.	Kokrajhar	4	5	7	24	139	179
6.	Barpeta	9	28	4	8	327	376
Total		**38**	**112**	**27**	**86**	**1217**	**1480**
Barak Valley & Hills District							
1.	Cachar	8	13	2	2	264	289
2.	NC Hills	3	2	2	2	65	74
3.	Hailakandi	4	6	1	2	104	117
4.	Karbi-Anglong	8	25	7	9	104	153
5.	Karimganj	5	8	2	6	218	239
Total		**28**	**54**	**14**	**21**	**755**	**872**
TOTAL (ASSAM)		**149**	**380**	**71**	**239**	**4592**	**5435**

(*Source*- Assam Health Facility Survey, State Report-2007)

STATUS OF DISTRICT HOSPITAL IN ASSAM.

Sl.No.	District	District Hospital
1.	Kamrup	350 bed State Hospital
2.	Dibrugarh	No District hospital
3.	Cachar	50 bedded SM DEV CH
4.	Nagaon	190 Bedded CH
5.	Goalpara	150 Bedded CH)
6.	Dhubri	200 Bedded CH
7.	Kokrajhar	150 Bedded CH
8.	Barpeta	100 Bedded CH
9.	Darrang	100 Bedded CH
10.	Sonitpur	190 Bedded CH
11.	Karimganj	100 Bedded CH
12.	Jorhat	200 Bedded CH
13.	Karbi-Anglong	100 Bedded CH
14.	NC Hills	100 Bedded CH
15.	Sivasagar	150 Bedded CH
16.	Lakhimpur	100 Bedded CH
17.	Golaghat	100 Bedded CH
18.	Nalbari	100 Bedded CH
19.	Bangaigaon	No District hospital
20.	Morigaon	100 Bedded CH
21.	Dhemaji	100 Bedded CH
22.	Tinsukia	100 Bedded CH
23.	Hailakandi	100 Bedded CH

(*Source*- Assam Health Facility Survey, State Report-2007)

PRIVATE HEALTH FACILITY IN THE STATE.

The private sector hospitals in Assam are unevenly distributed. Most of the private hospitals are clustered in the Kamrup (Metropolitan) and Guwahati. In

some of the districts there is not even a single private sectors hospital. At present there are 131 private sector hospitals in Assam scattered over 13 districts.

Sl.No.	Health Facility	Number
1.	Private Sector Hospitals	131

(*Source*- Assam Health Facility Survey, State Report-2007)

HEALTH MANPOWER

Sl. No	Manpower	Regular			Contractual
		Sanc.	Pos.	Vacant	
1.	Director (FW)	1	1	0	-
2.	Director (Health)	1	1	0	-
3.	JDHS	23	23	0	
4.	Addl. CMHO (FW)	21	17	4	-
5.	MO	2238	1903	425	39+18 (Specialist)
6.	BEE	118	91	27	-
7.	GNM	1088	1003	85	1127
8.	LHV	538	397	141	-
9.	ANM	5134	4830	304	2830

(*Source*- Assam Health Facility Survey, State Report-2007)

FUCNTIONALITY OF THE HEALTH FACILITIES:

Sl.No.	Health Facility	Number
1.	No. functioning as FRU	33 (SDCH-1, CHC-30, PHC-2)
2.	No. functioning as 24x7	269 (BPHC-149, MPHC-64, SHC-11SD-48)
3.	No. of SC functioning in Govt building	1798
4.	No. of SC functioning with ANM	4592

(*Source*- Assam Health Facility Survey, State Report-2007)

Background of the study

There has been a growing concern about the functioning of health services in both developed and developing countries. Questions are raised about the quality of medical care, utilization and coverage of health services, benefits to community health in terms of mortality and morbidity reduction and improvement of health status of health care recipient etc.

Mother and child health has been the integral part of India's public health planning and services. Thus it makes it essential to have an overview of background of India's Public health.

Early History:-

India has one of the most ancient civilizations in the recorded history. Thousands of years before the Christian era, there existed a civilization in the *Indus Valley*, known as the Indus Valley civilization. Excavations in the Indus valley (*Mahenjadara* & *Harappa*), showed the relics of planned cities with drainage, houses and public baths built of baked bricks suggesting the practices of environmental sanitations, by an ancient people as far back as 3000 B. C. India was invaded by the Aryans about 1400 B.C. It is probably during this period, the *Ayurveda* and *Siddha syatems* of medicine came into existence. *Ayurveda* or the science of life developed a comprehensive concept of health. The *Manu Samhita* prescribed rules and regulation for personal health, dietetics and hygienic ritual at the time of birth and death, and also emphasized the unity of physical, mental and spiritual aspects of life. *Sarve Jana Sukhino Bhavatu* (may all be free from disease and may all be healthy) was an ancient saying of

Indian sages. This concept of happiness has its roots in ancient Indian Philosophy of life, which conceived the oneness and unity of all people, wherever they lived.

The Post-Vedic period (600 B.C-600 A.D) was dominated by the religious teaching of *Buddhism and Jainism*. Medical education was introduced in the ancient universities of *Taxila and Nalanda*, leading to the titles of *Pranacharya and Pranavishara*. A hospital system was developed during the reign of *Rahula Sankirtyana* (son of the Buddha) for men, women and animals and the system was continued and expanded by the king *Ashoka*.

The next phase in the Indian history (650 A.D-1850 A.D) witnessed the rise and fall of the *Mughal* empire. The Muslim rulers introduced into India around 1000 A.D, the Arabic system of medicine popularly known as the *Unani* system, the origin of which is traced to Greek medicine. The *Unani* system than became part of the Indian medicine. With changes in the political conditions in India, the torch, which was lightened thousands of years ago by the ancient sages, grew dim, medical education and medical services became static, and the ancient universities and hospital disappeared.

Public Health In British India:-

By the middle of the 18th century, the british had established their rule in India which lasted till 1947.The significant events in the history of public health as well as mother and child health during this period are given below in chronological order-

1757 The British had established their rule in India. The Civil and Military services were established

1825 The Quarantine Act was promulgated.

1859 A Royal commission was appointed to investigate the causes of the extremely unsatisfactory condition of health in the British army stationed in India. The commission recommended the establishment of a "commission of Public Health" in each presidency and pointed out the need for the protection of water supplies, construction of drains and prevention of epidemics in the civil population for safeguarding the health of the british Army.

1864 Sanitary commissioners were appointed in the three major provinces- Bombay, Madras and Bengal. The civil surgeons/ district Medical Officers became the ex-officio District Health Officers.

1869 A Public Health Commissioner and a Statistical Officer were appointed with the Govt. of India.

1873 A birth and death Registration Act was promulgated.

1880 The Vaccination Act was passed.

1881 The first Indian Factories Act was passed, the first all India Census was taken.

1885 The Local Self government Act was passed and local bodies came into existence.

1888	The Govt. of India directed that sanitation should be looked after by the Local bodies, but no local public health staff was created to look after the sanitation.
1896	A severe epidemic of plague occurred in India which awakened the Govt. to the urgent need of improving through public health. The Plague Commission was appointed.
1897	The Epidemic Disease Act was promulgated.
1904	The Plague Commission in its report recommended the reorganization and expansion of public health departments and establishment of laboratory facilities for research, production of vaccines and sera.
1909	The Central Malaria Bureau was formed at Kasauli.
1911	The Indian Research Fund Association (now ICMR) was established for promotion of health research.
1912	The Govt. of India decided to help local bodies with grants and also sanctioned the appointment of Deputy Sanitary Commissioners and Health Officers.
1920-21	Municipality and Local Board Acts, containing legal provisions for advancement of public health were passed in several provinces.
1930	The Child Marriage Act came into effect fixing the age of marriage at14 years for girls and 18 years for boys.
1931	A Maternity and Child Welfare Bureau was established under the Indian Red Cross Society.
1943	The Health Survey and Development Committee (The Bhore Committee) was appointed by the Govt. of India to survey the

existing position in regards to health conditions and health organization in the country, and to make recommendations for future development.

1946 The Bhore Committee submitted its report and recommended for short and long term programme for attaining reasonable health services based on concepts of modern health practice.

Public Health in Post Independence Era;-

India became Independent in 1947. For the first time in India's long history, a democratic regime was set up with economy geared to a new concept, the establishment of a 'Welfare State". The burden of improving the health status of the people, and widening of the health measures fell upon the national Govt. Bhore Committee's report and recommendation became the basis for most of the health planning and measures adopted by the national government. The significant events in the history of public health as well as mother and child health since India became free are as follows-

1947 Ministries of health were established in many states. The posts of Director General, Indian medical Service, and of public Health Commissioner with Govt. of India were integrated in the post of Director General of Health Services, who is the principal advisor to Union Govt. both on medical and public health matters. This example was followed by many states. The posts of Surgeon General, the Director of Public Health

and Inspector General of Hospitals were integrated in many states in the post of Director of Health Services.

1948 India became the member of World Health Organization.

1951 The beginning of first five year plan, with a total outlay of Rs-2356 crores. A sum of Rs-140 crores (4.9 per cent) was allotted for health programmes. The B.C.G vaccination programme launched in the country.

1952 The community development programme was launched on 2nd Oct, 1952 for all round development with provisions for health services in rural areas.

1953 A national Family Planning Programme was started, and a committee was appointed to draft a model public health Act for the country.

1954 1) contributory health services scheme (central govt. Health Scheme) was started at Delhi, (2) The Central Social Welfare Board was set up, (3) The National Water Supply and Sanitation Programme was started and (4) the National Leprosy Control Programme was started.

1955 The Hindu Marriage Act was passed prescribing minimum age for marriage -18 years for boys and 15 years for girls.

1956 1) The second Five Year Plan (1956-61) was launched with an outlay of Rs- 4800 crores, of which Rs-225 crores (5 per cent) allotted for health, (2) Director, Family Planning was appointed in the Union Health Ministry.

1959 The Mudaliar Committee was appointed by the Govt. of India to survey the progress made in the field of health since submission of Bhore Committee's report, and to make recommendation for future development and expansion of health services in the country.

1960 The School Health committee was constituted by the Union health Ministry to access the standards of nutrition and health of school children and suggests ways and means for improving them. A national Nutritional Advisory Committee was set up to tender advice to the policies to be adopted by the government.

1961 The Third Five Year Plan was launched with an outlay of Rs-7500 crores, out of which Rs-342 crores (4.3 per cent) were provided for health programmes. The report of the Mudaliar Committee was published. The central Bureau of Health Intelligence was established.

1965 The Director, ICMR, recommended Lippes Loop as safe and effective for mass programmes. The reinforced Extended Family Planning Programme was launched. "'Direct', BCG vaccination without tuberculin test, on a house to house basis was introduced.

1966 The Minister of Health was also appointed as Minister of Family Planning. A separate department for family planning was constituted in the Union Ministry of Health to coordinate the Family Planning Programme at the centre and states. The

Population Council Started the International Postpartum Family Planning Programme in 25 hospitals. Two of these hospitals were located in India-Delhi and Trivendrum.

1967 Small Family Norm Committee was set up for recommending suitable incentives to those accepting small family norm and practicing family planning.

1968 Small Family Norm Committee submitted its report, a bill of registration of births and deaths was passed. by the Parliament.

1969 The Fourth Five Year Plan was launched with an outlay of Rs19774 crores, out of which Rs-840 crores allotted to health and Rs-315 crores to family planning.

1978 All India Hospital (Postpartum) family planning programme was started. The Registration of Births and Deaths came into force.

1972 The Medical Termination of Pregnancy Act came into force..

1973 The National Programme of Minimum Needs was incorporated in the fifth five year plan, which covered the elementary education, rural health, nutrition, rural roads, water supply, housing, slums and rural electrification. Government envisaged a scheme for setting up 30-bedded hospitals: one for ever four primary health centres. The Kartar Singh Committee submitted its report recommending the formation of a new cadre of health workers designated as " Multi Purpose Health Workers" for delivery of health, family

planning and nutrition services to rural communities, who will later on replace in course of time the basic health workers, family planning health assistants, auxillury nursing mid-wives.

1974 The Fifth Five Year Plan was launched on 1, April 1974 with an outlay of Rs-53411 crores out of which Rs-796 crores and Rs-516 crores were allotted for health and family planning respectively.

1975 The year was marked on the launch of Integrated Child Development Services Scheme on 2nd October. .

1977 1) The National Institute of Health and Family Planning was set up. (2) Rural Health Scheme was launched. Training of community health workers was taken up. (3) The 42nd amendment of the constitution made "Population control and family Planning a concurrent subject. (4) WHO adopted the goal of HEALTH FOR ALL by 2000 AD.

1979 The World Health Assembly endorsed the Declaration of Alma Ata on primary health care. The offices of family welfare and NMEP were merged and named as Regional Office for Health and family Welfare.

1982 The new 20 points programme and National Health Policy were announced by the government.

1985 1) 7th Five Year Plan (1985-90) was launched. 2) Universal Immunization Programme was launched. 3) A separate Department of Women and Child Welfare was set up under the newly created Ministry of HRD.

1990	Control of Acute Respiratory Infection (ARI) was initiated as pilot project in 14 districts.
1991	India stages the last decadal census of the country.
1992	(1) Eighth Five year Plan (1992-97) was launched. 2) Child survival and Safe Motherhood was launched on 20th August. 3) The Infant Milk Substitute, feeding bottles and infant foods (Regulation of production, supply and distribution) Act 1992 came into force.
1996	1) Pulse Polio Immunization, the single day largest event took place on 9th December 1995 and 20th January 1996. The second phase of PPI was conducted on 7th December 1996 and 7th January 1997. 2) Family Planning programme was made target free from 1st April1996. 3) Prenatal Diagnostic Technique (Regulation and Prevention of Misuse) Act 1994 came into force from January 1996.
1997	In the year 1994, during the International Conference on Population and Development (ICPD), held in Cairo, it was recommended to adopt the 'Reproductive Health' approach to the population issues. Accordingly, as a follow-up action to this conference, the Government of India launched the Reproductive and Child Health (RCH) programme in October, 1997.

After that the Mother and Child Health and welfare has been given the highest priority at every level of planning and development initiatives in India.

Evolution of India's Family Welfare Programme

The fifties

At the time of Independence the health care services in India were predominantly urban, hospital based and curative. General practitioners well versed in maternal child health and pediatricians & obstetricians provided health care to women and children who came to them. They did provide comprehensive, integrated, good quality services but technology available for detection and management of health problems was limited and out reach of services was poor. Majority of the population especially those belonging to the poorer segment and those residing in rural areas did not have access to health care. Consequently the morbidity and morality rates in them were quite high. Many women died while seeking illegal induced abortion to get rid of unwanted pregnancy because they did not have access to contraceptive care for preventing pregnancies. Conceptions that were too early, too close, too many and too late resulted in high maternal and infant mortality rates. Antenatal, postnatal and contraceptive cares were not readily available to women who required these services desperately. Obstetricians, who were Daily witnessing maternal morbidity and mortality associated with high parity, were ready and willing to persuade their patients who had completed their families, to undergo surgical sterilization. The fact that the technique was simple, safe and effective and could be done soon after delivery under local anesthesia, accounted for the popularity of postpartum tubal sterilization. The safety, simplicity and efficacy of vasectomy were also well recognized. For a couple who had completed their

family, sterilization of one partner resulted in the reduction of maternal morbidity and mortality associated with high parity. To some extent this was responsible for the substantial drop in maternal mortality rates observed in the urban areas during the 1950s. However, these measures had no impact on the fertility rate or the population growth rate of the country because of poor outreach to rural population. Thus in fifties good quality integrated maternal and child health care, and family planning services were available to those who were aware, had access and could afford the services of the physicians. There were efforts to improve the coverage of the population and extend the services to rural areas as a part of the block development programme; resource and manpower constraints were responsible for the slow progress in this effort.

The sixties

The sixties witnessed a sea change with availability of safe effective vaccines for many communicable diseases, and effective contraceptives such as Lippe's loop for prevention of pregnancy; programmes for providing these to the population as well as programmes for improvement of nutritional status of vulnerable groups were initiated during this period. In order to reach the benefits of the technological innovations to the population, certain identified priority interventions were implemented by a well knit team of professionals who looked after the programme requirements and implementation at the periphery was done through the limited health care infrastructure available in rural areas. The Family Planning and the immunization programme were among the earliest of

such programmes; subsequently several other vertical programmes were added. In an attempt to improve the out reach, camp approach was taken up for providing care to pregnant women and children; these efforts however did not result in any marked improvement in health status of these vulnerable groups because the care was not available when needed and referral services were not available.

Rapid growth of the population in the previous 10 years, reported in the 1961 census, stimulated the Government to form a Department of Family Planning, with a modest budget. The health infrastructure was still predominantly urban based. During the 1960s, sterilization remained the focus of the National Family Planning Programme. Efforts were made to popularize vasectomy and to provide vasectomy services to rural areas, using a camp approach. Tubectomy services, however, remained based predominantly in urban hospitals. Extension education approach to improve awareness and increase acceptance of F.P. methods were also included. Lippe's loop provided the first reliable birth spacing method for women in India. Following encouraging response in urban clinic attempts were made to provide this spacing method to the rural population through camp approach. However, without infrastructure to provide the follow up services the device fell into disrepute. It was obvious that without substantial inputs into infrastructure and manpower to provide the needed follow up services it will not be possible to achieve any substantial improvement in Maternal and Child Health indices or reduce birth rates.

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Seventies

The seventies witnessed many initiatives to improve the health and nutritional status of women and children. The massive dose Vitamin A programme aimed at prevention of nutritional blindness, the anaemia prophylaxis programme aimed at reducing anaemia and associated ill health and food supplementation to pregnant and lactating women and children below five years through ICDS were major initiatives to tackle under nutrition and its adverse consequences in women and children. With the improvement in primary health care infrastructure access to health care improved.

The Census of 1971 showed that population explosion was no longer a potential threat but a major problem to be tackled. The government gave top priority to the Family Planning programme and provided substantial funds for several new initiatives. Sterilization, IUD and condoms were made available through the Primary Health Centres. The Hospital Based Postpartum Progamme provided contraceptive care to women coming for delivery. The MTP act enabled women with unwanted pregnancy to seek and obtain safe abortion services.

Increasing concern about rapidly growing population led to the Family Planning Programme being included as a priority sector programme during the Fifth Plan. The massive sterilization drive of 1976 did result in eight million persons undergoing sterilization, but this did not have any perceptible impact on the birth rate as the cases were not appropriately chosen. The very next year showed a steep fall in the acceptance. In 1979 the Programme was renamed as

Family Welfare Programme; increasing integration of family planning services with those of MCH and Nutrition was attempted.

Eighties

In 1983 India formulated the National Health Policy, which provided comprehensive frame work for planning, implementation and monitoring of Health care services. The National Health Policy:

a. Reviewed the progress achieved in the delivery of health services
b. Provided a situation analysis of the progress achieved in health, family welfare and nutrition programmes.
c. Identified priority areas for intervention in the next two decades
d. Defined the policy, strategy and programme intervention in these priority areas
e. Set the goals to be achieved by 2000 AD

Subsequent Plans have attempted to evolve and implement intervention Programmes to achieve the goals set in the National Health Policy.

A major initiative was taken during the Seventh Plan to provide facilities/services nearer to the doorsteps of population. The primary health care infrastructure was expanded:

i. It was envisaged to have one sub-centre for every 5000 population in plain areas and for 3000 population in hilly and tribal areas. At the end of

Seventh Plan i.e. 31.3.90, 1.30 lakhs sub-centres were established in the country.

ii. The Post Partum Programme was progressively extended to sub-district level hospitals. At the end of the Seventh Plan 1075 sub district level hospitals and 936 health Posts were sanctioned in the country, out of which the number functioning were 1012 and 870 respectively.

iii. The Universal Immunization Programme, started in 30 Districts in 1985-86, was extended to cover 448 districts in the country by the end of the Seventh Plan.

iv. Urban family welfare outposts and centres were established to provide improved access to family welfare services to the vulnerable slum population.

Focused attempts were made to improve the immunization coverage through Universal Immunization Programme (UIP) mission mode project. Attempts were also made to improve antenatal coverage, improve the coverage under ORT and ARI Programme.

Eighth Plan Initiatives

Containing population growth was one of the six major objectives of the Eighth Plan. Recognizing the fact that reduction in infant and child mortality is an essential pre-requisite for acceptance of small family norm, Government of India has attempted to integrate MCH and Family Planning as part of Family Welfare services at all levels. NDC approved modified Gadgil Mukherjee Formula which

for the first time gave equal weightage to performance in MCH Sector (IMR reduction) and FP Sector (CBR reduction) as a part basis for computing central assistance to non special category States. This initiative ensured that the inter linkages between Family Welfare Programme and Development was kept in focus in State Plans.

In order to give a new thrust and dynamism to the ongoing Family Welfare Programme the National Development Council set up a Sub-Committee on Population to consider the problem of population stabilization and come up with recommendations to improve performance. The report of the sub-committee was considered and the recommendations were endorsed by the NDC in its meeting in September 1993. The NDC Committee on Population had recommended that Family Welfare Programme should take cognizance of the area specific socioeconomic, demographic and health care availability differentials and allow requisite flexibility in programme planning and implementation. For this purpose the NDC Committee recommended that there should be

The NDC Committee on Population has recommended the following-

- Decentralized area specific planning based on the need assessment
- Emphasis on improved access and quality of services to women and children
- Providing special assistance to poorly performing states/districts to minimize the inter and intra-state differences in performance.

Creation of district level databases on quality and coverage and impact indicators for monitoring the programme,

ICPD has advocated similar approach.

Concordance between National (NDC Committee) and International (ICPD) efforts has improved funding and accelerated the pace of implementation of the family welfare programme

The Department of Family Welfare started implementing the recommendations of the NDC Committee on Population during the Eighth Plan period. Funds from Social Safety Net (SSN) Programme were earmarked for improving primary health care infrastructure in poorly performing districts identified on the basis of IMR and CBR of 1981 census estimates. Implementation of Child Survival and Safe Motherhood (CSSM) Programme was initiated in the very first year of the Eighth Plan in these districts. A project to revitalize the Family Welfare Programme in Uttar Pradesh was taken up with external assistance.

The Child Survival and Safe Motherhood Programme (CSSM) was initiated in 1992. Under the Programme efforts were made to provide integrated antenatal, intra-natal and postnatal care to women; the child health care component included immunization, diarrhoeal and acute respiratory infection prevention and management programmes. The pulse polio initiative aimed at eradication of polio by 2000 AD was initiated in 1996.

In response to the recommendations of the NDC that there should be decentralized area specific need assessment and micro planning to meet the local needs, the department abolished the centrally defined method specific targets for family planning in two states (Tamil Nadu and Kerala) and 18 districts

in 1995-96. Encouraged by the response in these two states, Department of Family Welfare has abolished the method specific centrally defined targets throughout the country and changed over to PHC based community needs assessment, planning and implementation of Family Welfare Programme. Efforts are underway to improve access and quality of care to women and children.

The International Conference on Population and Development (ICPD) was held in Cairo in 1994. Major recommendations of the ICPD include:

1. Holistic reproductive health care should be made available through primary health care system.
2. Efforts should be made by all the states to reduce infant mortality by one-third and maternal mortality by 50 per cent by 2000 AD.
3. Need assessment and need fulfillment as key elements for improving reproductive health.

India is a signatory to the ICPD; the recommendations of the ICPD are essentially similar to the recommendations of the NDC Committee on Population. The concordance between the National and International efforts has enabled the programme to get all the necessary political, economic and administrative support and gain further momentum to launch the Reproductive and Child Health (RCH) Programme in 1997.

Rural Health Care System in India

The health care infrastructure in rural areas has been developed as a three tier system (see Chart 1) and is based on the following population norms:

Plain Area Hilly/Tribal/Difficult Area

Sub-Centre 5000 3000

Primary Health Centre 30,000 20,000

Community Health Centre 1, 20,000 80,000

Sub-Centres (SCs)

The Sub-Centre is the most peripheral and first contact point between the primary health care system and the community. Each Sub-Centre is manned by one Auxiliary Nurse Midwife (ANM) and one Male Health Worker/ MPW(M) (for details of staffing pattern, see Box 1). One Lady Health Worker (LHV) is entrusted with the task of supervision of six Sub-Centres. Sub-Centres are assigned tasks relating to interpersonal communication in order to bring about behavioral change and provide services in relation to maternal and child health, family welfare, nutrition, immunization, diarrhea control and control of communicable diseases programmes. The Sub-Centres are provided with basic drugs for minor ailments needed for taking care of essential health needs of men, women and children. The Ministry of Health & Family Welfare is providing 100 per cent Central assistance to all the Sub-Centres in the country since April 2002 in the form of salary of ANMs and LHVs, rent at the rate of Rs. 3000/- per annum and contingency at the rate of Rs. 3200/- per annum, in addition to drugs and equipment kits. The salary of the Male Worker is borne by the State Governments. Under the Swap Scheme, the Government of India has taken over an additional 39,554 Sub Centres from State Governments / Union Territories since April, 2002 in lieu of 5,434 number of Rural Family Welfare Centres

transferred to the State Governments / Union Territories. There are 1,45,272 Sub Centres functioning in the country as on March 2007.

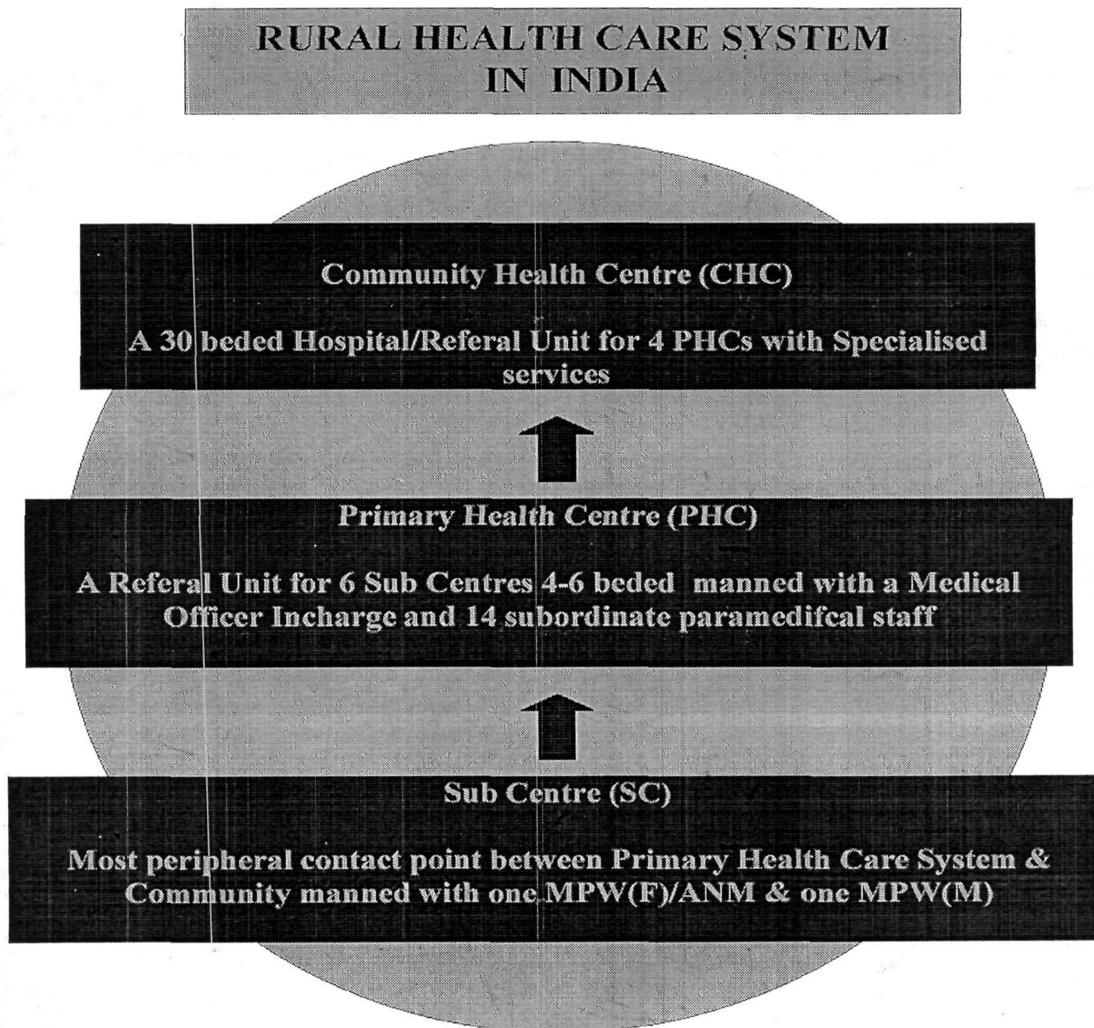
Primary Health Centres (PHCs)

PHC is the first contact point between village community and the Medical Officer. The PHCs were envisaged to provide an integrated curative and preventive health care to the rural population with emphasis on preventive and promotive aspects of health care. The PHCs are established and maintained by the State Governments under the Minimum Needs Programme (MNP)/ Basic Minimum Services Programme (BMS). At present, a PHC is manned by a Medical Officer supported by 14 paramedical and other staff. It acts as a referral unit for 6 Sub Centres. It has 4 - 6 beds for patients. The activities of PHC involve curative, preventive, primitive and Family Welfare Services. There are 22,370 PHCs functioning as on March 2007 in the country.

Community Health Centres (CHCs)

CHCs are being established and maintained by the State Government under MNP/BMS programme. It is manned by four medical specialists i.e. Surgeon, Physician, Gynecologist and Pediatrician supported by 21 paramedical and other staff. It has 30 in-door beds with one OT, X-ray, Labor Room and Laboratory facilities. It serves as a referral centre for 4 PHCs and also provides facilities for obstetric care and specialist consultations. As on March, 2007, there are 4,045 CHCs functioning in the country.

Chart 1.



Box 1.

STAFFING PATTERN

A.	STAFF FOR SUB - CENTRE:	Number of Posts
1.	Health Worker (Female)/ANM	1
2.	Health Worker (Male)	1
3.	Voluntary Worker (Paid @ Rs.100/- p.m. as honorarium)	1
	Total:	3

B.	STAFF FOR NEW PRIMARY HEALTH CENTRE	
1.	Medical Officer	1
2.	Pharmacist	1
3.	Nurse Mid-wife (Staff Nurse)	1
4.	Health Worker (Female)/ANM	1
5.	Health Educator	1
6.	Health Assistant (Male)	1
7.	Health Assistant (Female)/LHV	1
8.	Upper Division Clerk	1
9.	Lower Division Clerk	1
10.	Laboratory Technician	1
11.	Driver (Subject to availability of Vehicle)	1
12.	Class IV	4
	Total:	15

C.	STAFF FOR COMMUNITY HEALTH CENTRE:	
1.	Medical Officer #	4
2.	Nurse Mid- Wife(staff Nurse)	7
3.	Dresser	1
4.	Pharmacist/Compounder	1
5.	Laboratory Technician	1
6.	Radiographer	1
7.	Ward Boys	2
8.	Dhobi	1
9.	Sweepers	3
10.	Mali	1
11.	Chowkidar	1
12.	Aya	1
13.	Peon	1
	Total:	25

:Either qualified or specially trained to work as Surgeon, Obstetrician, Physician and Pediatrician. One of the existing Medical Officers similarly should be either qualified or specially trained in Public Health).

RURAL HEALTH CARE INFRASTRUCTURE
NATIONAL NORMS AND LEVEL OF ACHIEVEMENTS (ALL INDIA)

Sl.No. / Indicator	National Norms: General	National Norms: Tribal/Hilly/Desert	Achievements
1 Rural Population (2001) covered by a:			
Sub Centre	5000	3000	5111
Primary Health Centre (PHC)	30000	20000	33191
Community Health Centre (CHC)	120000	80000	1.83 lakhs
2 Number of Sub Centres per PHC	6		6
3 Number of PHCs per CHC	4		6
4 Rural Population (2001) covered by a:			
HW (F)	5000	3000	5035
HW (M)	5000	3000	11808
5 Ratio of HA (M) to HW (M)	1:6		1:3
6 Ratio of HA (F) to HW (F)	1:6		1:9
7 Average Rural Area (Sq. Km) covered by a:			
Sub Centre			21.47
PHC			139.40
CHC			770.90
8. Average Radial Distance (Kms) covered by a:			
Sub Centre			2.61
PHC			6.66
CHC			15.66
9 Average _umber of Villages covered by a:			
Sub Centre			4
PHC			29
CHC			158

Mother and child health problems cover a broad spectrum of activities. At one extreme, the most advanced countries are concerned with problems such as anti-natal complications, congenial malformation and genetic and behavioral problems. At the other extreme, developing countries the primary concern are of reduction of maternal and child morbidity and mortality, spacing of pregnancies, limitation of family size, prevention of communicable diseases, improvement of nutrition and promoting acceptance of health practices etc. Currently, the main health problem affecting the health of mother in India as in other developing countries, revolve around the triad of malnutrition, infection and consequences of unregulated fertility. Associated with these problems are the scarcity of health and other services in vast areas of the country together with other socio-economic conditions.

India has a long history of mother and child health services. The traditional social institutions like joint family, caste, and the community were concerned much for the welfare and development of their members and particularly for the weaker sections like women and children. Voluntary organizations have played a pioneering role in the areas of education, health, nutrition and welfare services for women and children. Some of these programmes are related to the development of children in early ages. After independence the state assumes a greater responsibility towards the care and welfare of women and children.

The rapidly growing population had been a major concern for health planners and administrators in India since independence. The result was the

launching of National Family Planning Programme by the Government of India. India was the first country to have taken up the family planning programme at the national level. A CHANGED POLICY named as TARGET FREE APPROACH came into existence from 1.4.96. Thereafter, following the recommendations of the International Conference on Population and Development (ICPD) held in Cairo in 1994, the Govt of India introduced the Reproductive & Child Health (RCH) package to supplement the MCH services in the country. Reproductive and Child Health Program is a major initiative in 9th Five year Plan from April, 1999 following the International Conference of Population Development in Cairo.

Milestones in the history of MCH care in India

- Establishment of training of Dais in Amritsar in 1880
- Passing of first Midwifery Act in London in 1902 to promote safe delivery.
- Setting up of advisory committee on maternal mortality in 1931-32. Advisory committee in 1930 scrutinized causes leading to maternal deaths in hospitals and recommending course of actions to prevent such mortality. Even today no maternal mortality reviews are held to prevent such recurrences.
- Bhore committee, set up in 1946, recommended health programmes to be built on foundations of preventive health and referral services. Primary health centres came up since 1952 & MCH centres become its integral part by 1956.
- By 1974, in a very sound conceptual move, family planning services got incorporated in MCH care. But at the field level, in practical terms, it

simply shifted the focus of MCH care to centrally driven, target-oriented family planning programme with major emphasis on sterilization.

- Universal Immunization Programme in 1985
- Child Survival & Safe Motherhood programme was introduced during 1992, which did produce the desired results, to some extent.
- In 1994, major conceptual shift occurred in family welfare programme. Target free approach with emphasis on quality services and birth spacing methods were recommended.

Lessons from experiences

Poor health status of women and children in terms of high mortality and morbidity was another health priority in this country. Health facilities like hospitals and health centres were established for providing Maternal and Child Health (MCH) care through antenatal, intra-natal and post-natal services. In addition, a number of special programmes and schemes like immunization against vaccine preventable diseases, nutrition interventions like iron and folic acid distribution and vitamin A supplementation, diarrhoeal disease control through Oral Rehydration Therapy (ORT), Acute Respiratory Infection (ARI) control programme etc. were implemented over the past. In order to ensure maximum benefit from these programmes and to provide services in an integrated manner to this vulnerable group, the Child Survival and Safe Motherhood (CSSM) programme was implemented in India since 1992. Despite all these efforts, desired impact on the population growth, health and development of women and children could not be achieved in the country and the need for a new approach to the problem was well felt. In 1994, during the International Conference on

Population and Development (ICPD), held in Cairo, it was recommended that a new approach needs to be adopted to tackle the problem. Under this approach, it was decided that family planning services should be provided as a component of the comprehensive reproductive health care.

Reproductive health approach implies that men and women will be well informed about and will have access to safe and effective contraceptive methods, women can go through pregnancy and child birth safely and that couples are provided with best chance of having a healthy infant. Being one of the 180 participating countries of the ICPD conference, India also agreed to the decision taken during the conference to adopt the 'Reproductive Health' approach to the population issues. Accordingly, as a follow-up action to this conference, the Government of India launched the Reproductive and Child Health (RCH) programme in October, 1997.

Reproductive and Child Health Programme

Reproductive and Child Health (RCH) has been defined as a state in which "People have the ability to reproduce and regulate their fertility; women are able to go through pregnancy and childbirth safely, the outcome of pregnancy is successful in terms of maternal and infant survival and well being; and couples are able to have sexual relations free of the fear of pregnancy and contract diseases". This means that every couple should be able to have child when they want, that the pregnancy is uneventful, that safe delivery services are available, that at the end of the pregnancy the mother and the child are safe, well

and that contraceptives by choice are available to prevent pregnancy and of contracting diseases.

With the new approach of the programme, it is expected that health personnel, including you, will be able to understand more easily and completely the needs of the population and deliver the services accordingly. The RCH Programme is envisaged to provide an integrated package of services, which will include the following:

- Services for mothers during pregnancy, child birth and post-natal period, and also safe abortion services, whenever required.
- Services for children like newborn care, immunization, Vitamin A prophylaxis, Oral Rehydration Therapy (ORT) for diarrhoea, management of Acute Respiratory Infections (ARI), anaemia control etc.
- Services for eligible couples through availability and promotion of use of contraceptive methods, and infertility services when required.
- Prevention and management of Reproductive Tract Infections (RTIs) and Sexually Transmitted Infections (STIs).
- Adolescent health services including counselling of family life and reproductive health.

For rendering the above stated services, the new approach under the RCH Programme places emphasis on **client-oriented**, **need-based, high quality**, **integrated services** to the beneficiaries. There has been major shift/change in the approach from the past and some of these important changes are:

- **Target Free approach Based on Community Needs**

In the past, the workload of the health functionaries was based on the centrally determined, contraceptive method-specific targets. Under the RCH Programme, this method is withdrawn and in its place, you yourself can estimate your workload by using **Community Need Assessment Based Approach (CNAA)**. Since 1996, the Government of India has started the implementation of this approach.

- **Participatory Planning**

The estimation of needs of services is required and its planning is to be actually undertaken by the health workers under your guidance with active involvement of and consultation with community members including women's groups, members of the Panchayatraj institutions etc.

- **Emphasis on quality of care and client satisfaction**

Under the RCH Programme, special emphasis is placed on good quality of care. Therefore, you have to ensure that all services provided are of good quality and acceptable to the clients. This can be achieved by ensuring practice of technically correct procedures while rendering various services. It also need better interpersonal relationship between clients and service providers. The clients are to be informed them about causes and seriousness of their health problems, types of services currently available and place of service delivery. Counselling services are to be provided, whenever needed, so that the clients

are able to take correct decisions for accepting the services. This, in turn, is expected to increase satisfaction about with the services received. This will increase acceptance of the services further.

There was fragmented attention in the decade of 1980s & earlier. Presently, there has been a major change in the approach. The National Family Welfare Program has undergone a Paradigm shift, from the past, with its focus on

- ***Target free approach based on community needs***
- ***Decentralized participatory planning***
- ***Greater emphasis on quality of care and client satisfaction***

The reason for the shift is the substantial inter-district variations in health indicators and even variations within the same state.

Well trained and highly motivated personnel are pre-requisite for successful implementation of this programme which deals with highly sensitive and personal issues of life, like contraception, abortions, maternal and child health services etc. In order to provide RCH services under the changed approach described above, service providers including you should have reasonable technical competence as well as sufficient skills in effective communication and managerial capabilities. Therefore, an essential intervention for success of this new approach of the programme is sensitizing the service providers to the new approach and for developing necessary skills.

The Reproductive and Child Health (RCH) Programme was launched throughout the country on 15th October, 1997. This programme aims at achieving

a status in which women will be able to regulate their fertility, women will be able to go through their pregnancy and child birth safely, the outcome of pregnancies will be successful and will lead to survival and well being of the mother and the child. The couples will also be able to have their sexual relation free from fear of pregnancy and of contracting sexually transmitted diseases.

The RCH approach consists of need-based, client-oriented, demand-driven and high quality integrated services which include:

- Maternal health services
- Child health services
- Prevention of unwanted pregnancies
- Prevention and management of Reproductive Tract Infection (RTI) / Sexually Transmitted Infections (STI)
- Adolescent health service

Five Key Principles as the basis of RCH Programme:

- **Moving away from traditional approach of numerical, method-specific, contraceptive targets and incentives to a client-centered system of performance goals and measures.**
- **Expanding the use of male and reversible contraceptive methods and broadening the choice of contraceptives.**
- **Improving the breadth, availability and quality of services and involving communities for managing the public sector programmes.**
- **Strengthening the role of the private sector in the programme.**

- **Assuming adequate funding for the current programme and for the expansion, which is implicit in adopting the reproductive health approach.**

The provision of good quality care is the main thrust of the RCH Programme. Thus, greater emphasis is given to better quality of services than that under the previous National Family Welfare Programme. Good qualities of services are determined by:

- Type of services provided :need based and through community needs assessment approach,
- Competence of the service providers,
- Good quality of equipments, which are correct, appropriate, well-maintained and well-utilized,
- Attention to Social aspects of the reproductive and child health problems. Gender sensitivity
- Timing of delivery of the services which is suitable for women
- Encouraging male participation and
- Involvement of women in the programme.

The new approach under the RCH program places special emphasis on *client-centered, demand driven, high quality, integrated services based on the need of the community, evolved through decentralized participatory planning.* There is an urgent need of comprehensive integrated approach for reproductive health care. Reproductive Health is not merely the absence of disease or disorder of the reproductive processes, but is a

condition in which reproductive functions & processes can be accomplished in a state of physical, mental and social well being. Client satisfaction would become the program's primary goal; with demographic impact a secondary, though an important concern of RCH Programme.

In RCH Programme, the contour has broadened with major emphasis on:

- **Integrated delivery of services for fertility regulation**
- **Maternal health**
- **Child health**
- **Safe abortions**
- **Nutrition**
- **Communication for behavior changes**
- **RTIs / STIs**
- **Adolescent health**

The **essential elements of reproductive and child health services** at the community and sub-centre level are given below, this will help you to understand how the reproductive and child health services are to be provided at the community level. The different services provided under RCH Programme are mentioned hereunder.

The recommended package of services

For the mothers:

- Tetanus Toxoid Immunization
- Prevention and treatment of anaemia
- Antenatal care and early identification of maternal complications

- Deliveries by trained personnel
- Promotion of institutional deliveries
- Management of obstetric emergencies
- Birth spacing

For the children:

- Essential newborn care
- Exclusive breast feeding and weaning
- Immunization
- *Appropriate management of diarrhea*
- Appropriate management of ARI
- Vitamin A prophylaxis
- Treatment of Anemia

For eligible couple:

- Prevention of pregnancy
- Safe abortion
- Prevention and treatment of reproductive tract infection (RTI) and sexually transmitted diseases (STD).

Women of reproductive age must receive:

Counselling on

- Importance of care of girl child.
- Optimal timing & spacing of birth.
- Small family norms.
- Use and choice of contraceptives
- Prevention of RTI / STI
- MTP Services

Information on Availability of

- MTP Services
- IUD & sterilization services

Family Planning Services

- Condom distribution
- Oral contraceptives
- IUD

Services for Recognition & Referral of RTI / STIs

Adolescent Health

Involvement of Male

It is legitimate right of the citizens to be able to experience sound reproductive and child health and therefore the RCH Programme will seek to provide relevant services for assuring Reproductive and Child Health to all citizens. Since 1997 sustainable amount has been spent by the Government on Reproductive and Child Health Programme, so, it is necessary to review and asses the impact of the programme on the target population with view to overcome the shortcomings for successful implementation of the programme.

Therefore, the proposed research study attempts to find out what is the impact of Reproductive and Child Health Programme in rural Assam. In this context, it is imperative to ask whether the programme is successful in Assam or not? Further, we shall find out how Reproductive and Child Health functionaries are delivering the services under the programme? And whether target population has been receiving the expected benefits or not?

OBJECTIVES OF THE STUDY

The was framed to meet the following objectives

1. To know the socio-economic background of the mother and children who are the beneficiaries of the Reproductive and Child Health Programme,
2. To study the impact of Reproductive and Child Health Programme on the beneficiaries and their knowledge, attitudes, opinions and problems.
3. To understand the level of knowledge, opinions and problems of medical and Para-medical functionaries working under the Reproductive and Child Health Programme,
4. To suggest suitable measures to improve the Reproductive and Child Health Programme