

Chapter 3

Health and Health Care Services in Meghalaya

3.1 Introduction

For most individuals, the choice to live a healthy life, free from disease and a reasonable lifespan is a crucial attribute to the notion of personal well being. It is only natural, then, that indicators on health as well as indicators that capture demographic concerns of a society are important constituents in the framework for evaluating the development process under the Human Development approach (National Human Development Report, 2001). One of the most important global health care efforts was the Alma Ata Declaration of “Health for All by 2000 AD”. The Declaration defines health in the following terms: *“Health is a state of complete physical, mental and social well-being and not merely absence of disease or infirmity, and is a fundamental human right”*, implying that health involves social and economic well being and is an entitlement of every human being. The Bhore Committee Report 1946, mentioned that *“no individual should fail to secure adequate medical care because of inability to pay for it”* and that *“the health service facility should be placed as close to the people as possible in order to ensure the maximum benefits to the communities to be served”*. Health care, according to Nobel Laureate Dr. Amartya Sen, is a fundamental element, which is crucial to providing social and economic opportunities to the people.

Improvement in health status has to be achieved through improving access to and utilization of Health (preventive and curative), Family Welfare and Nutrition Services, with special focus on underserved and poorer segments of the population. The major responsibility for creating infrastructure and building manpower largely rests with the State Government. Major disease control programmes and the Family Welfare Programmes are funded by the Centre (some with assistance from external agencies) and are implemented through the State health machinery. Programmes of supplementary nutrition for mothers and children are also funded by the Central Government and implemented through the State’s ICDS set up under the Social Welfare Department. Safe drinking water and environmental sanitation are essential pre-requisites linked to health and well being and for both of these the Government of India provides funds under various schemes. The implementation is undertaken by the State’s departments of Public Health Engineering and Urban Development.

Besides, the State Government has its own plan allocations (for new projects and programmes) and non-plan allocations (for maintenance activities) for health care, safe drinking water and sanitation and nutrition.

Meghalaya, a state with varying topographical features and climatic conditions, exhibits a varied disease profile. There are diseases which are endemic and recurring in nature such as Malaria, Cholera and Dysentery, and also other diseases such as Tuberculosis, Leprosy, Visual Impairment, Cancer, and AIDS. In spite of several constraints, overall health care in Meghalaya has improved considerably according to the Directorate of Observation and Treatment, Government of India.

3.2 Growth of Health Care Infrastructure and Services in Meghalaya

3.2.1. PRE-INDEPENDENCE PERIOD

The establishment of the following health care institutions marked the first known efforts in the sector:

- (1) Hospitals established by the Welsh Mission at Shillong and Jowai.

- (2) Hospital established by the Baptist Mission at Tura.
- (3) Pasteur Institute, Shillong, established by the Government.
- (4) Ganesh Das Hospital, Shillong, invested by the Goenka family (Ganesh Das Shri Ram) and later taken over by the Government.
- (5) Reid Provincial Chest Hospital, Shillong, established by the Government.
- (6) Civil Hospitals (with just a few beds) at Shillong and Tura, set up by the Government.
- (7) Mobile Dispensary at Jowai set up by the Government.
- (8) Civil Surgeons' offices at Shillong and Tura, under the control of the then Director of Health Services, Shillong.

With the exception of Pasteur Institute, all the institutions were concerned mainly with curative health care services. The Pasteur Institute was set up for Research, Laboratory Investigations and Vaccine Production. Vaccines produced at that time were mainly Anti-Smallpox, Anti-Cholera and Anti-Rabies. Control of epidemics of Smallpox, Cholera and Malaria was the common responsibility of all the above institutions.

3.2.2 POST – INDEPENDENCE PERIOD

3.2.2. A. During the period as part of Assam: During the post-independent period up to the period of creation of Meghalaya in 1972, development of health care services was seen in the following activities:

- Improvement and up-gradation of the existing private Hospitals at Shillong and Jowai by the Welsh Mission; at Tura by the Baptist Mission; upgradation of the Government Civil Hospitals at Shillong and Tura.
- Establishment of a new Government Civil Hospital at Jowai.
- Establishment of a few scattered Government State Dispensaries at some accessible villages in Khasi Hills, Jaintia Hills and Garo Hills.
- Establishment of Government Primary Health Centres (PHCs) at all the Block headquarters in Khasi Hills, Jaintia Hills and Garo Hills.
- Establishment of TB Hospital at Tura.
- Establishment of Leprosy Colonies in West Garo Hills and Ri Bhoi by the Missionaries of Charity.
- Establishment of 2 Leprosy Control Units; one at Ri Bhoi for the Eastern region of Meghalaya and another in East Garo Hills for the Western region of Meghalaya.
- Implementation of different National Health and Family Planning Programmes which included Family Planning Programme, Malaria Control Programme, TB Control Programme, Trachoma Control Programme, Leprosy Control Programme and Smallpox Control Programme.

All these National Disease Control programmes were established as vertical programmes for providing preventive, promotive and curative health care services under the control and supervision of the Director of Health Services at the State level. But at the periphery each programme official functioned independently without much coordination.

3.2.2. B. On Creation of Meghalaya:

Public sector health care infrastructure as it existed in 1972 and its growth since then is shown in Table 3.1.

At present there are 7 Districts with 9 hospitals (beside one MIMHANS and 2 TB hospitals, and one 100 bedded institution), 28 CHCs, 104 PHCs, 405 Sub-Centres, 9 Dispensaries and 12 urban health centres. Besides, there are in-house hospitals for the police (2) and jails (1) with emergency bed facility. Further, development and improvement in health care services are seen not only in curative services but also in preventive and promotive health care services in the state.

Table 3.1: Status of Public Sector Health Institutions and Services (1972-2007)

Items	1972	1981	1991	2001	2007
Number of Hospitals	7	9	9	6	9
Number of Dispensaries	57	58	23	20	14
Number of CHCs				12-17	28
Number of PHCs	9	23	63	85-88	104
Number of sub-centres		93	272	401	405
Number of Beds	781	1264	1811	2735	3166
Number of indoor patients	3385	40260	342740	97000	158000
Number of outdoor patients	90788	2039973	1915790	1511000	1923000
No. of IUCD inserted	485	284	1789	2407	2646
No. of sterilizations	582	257	612	2294	2264
Doctors	113	189	335	389	568
Nurses	117	305	318	384	862
Health visitors	8	30	45	59	71
ANMs	82	227	450	594	687
Pharmacists			137	92	188
Lab. Technicians			45	100	172
Vaccinators			148		106
Birth rate				28.3	25.1
Death rate				9	7.5
IMR		58	53	56	49

Note: There is variation in the number of Hospitals, CHCs, PHCs and Sub-centres due to definitional problems, and sometimes due to the exclusion of non-functional entities and institutions such as the Institute of Mental Health and Neurological Sciences.

Source: Compiled from handbooks of statistics (Directorate of Economic and Statistics- <http://www.megplanning.gov.in/handbook.htm>)

Like other states in India, the health department of the Government of Meghalaya, caters for implementation of different National Health Programmes of the Government of India. All the different vertical Health programmes of the Government of India are integrated under the Multipurpose Health programme at all levels in the State. The earlier Family Planning programme was renamed as Family Welfare programme and later modified as Reproductive and Child Health (RCH) programme. All the different National Health programmes are being implemented as per guidelines of the Government of India. At present, the welcome development is that the hitherto unreached rural population is attempted to be reached out through the National Rural Health Mission (NRHM), though it needs a focused and dedicated effort.

3.2.3 PUBLIC SECTOR HEALTH INFRASTRUCTURE

The 3-tier health delivery system is as follows:

- 1) A Community Health Centre (CHC) for a population of approximately 80,000 serves as a referral centre for PHCs. It should be manned by four Medical Specialists; a surgeon, a physician, a gynaecologist and a paediatrician. It has 30 beds for indoor patients with an operation theatre, X-ray, labour room and laboratory facilities.
- 2) A Primary Health Centre (PHC) for population of 20,000 serves as the first contact point between the village community and a medical officer. It acts as a referral unit for 6 or so Sub-centers. It has 10 beds for indoor patients.
- 3) A Sub-Centre for a population of 3,000 is the most peripheral contact point between the Primary Health Care system and the community. It is manned by one Multi-Purpose Worker (Male) and one ANM.

Based on the current population of around 27.25 lakh vis-à-vis the norms indicated above, the State would require setting-up of SC/PHC/CHC as follows:

Table 3.2: Estimated Number of Sub-Centres, PHCs and CHCs required by Meghalaya by 2020

Institutions	Presently Required	Available	Shortfall	Availability by 11th Plan	Availability by 12th Plan	Requirement by 2020	Additional requirement
Sub Centres	817	405	412	551	801	1021	220
PHCs	122	104	18	119	144	153	9
CHCs	31	28	3	31	36	38	2

Source: Director of Health Services (MCH&FW) Meghalaya, Shillong

Urban Health Centres (UHCs) were introduced in 2005-06. At present, there are 9 UHCs in Shillong, 2 UHCs in Tura and 1 UHC in Jowai. There are also *first referral units (FRUs)*, to provide 24 - hour emergency referral services, particularly in maternal and child health care. At present, 12 institutions have been identified to function as FRUs. Of these only 3 are functional, these are (1) Ganesh Das Hospital, Shillong (2) Civil Hospital Tura and (3) Civil Hospital, Jowai.

Out of the 28 *Community Health Centres (CHCs)* in the State, 12 are fully equipped, eight do not have OTs and 7 have OTs that are not fully equipped. 6 CHCs have non-functioning Labour Rooms. Almost all CHCs are without the required specialist doctors.

Out of the 104 *Primary Health Centres (PHCs)* in Meghalaya, 82 have no OTs. Of the remaining PHCs only eleven have fully equipped OTs. 22 PHCs do not have Labour Rooms. 12 of the PHCs do not have fully equipped Labour Rooms. 17 PHCs need repairs of the main buildings and quarters. Many PHCs are without vehicles.

There are 14 *Dispensaries* in the State out of which one is functioning from a rented house. All Dispensary buildings require repairs. In course of time these should be converted to PHCs.

Of the 405 Sub-Centres, 53 are non-functioning because ANMs are not staying in the place of work. 19 Sub-Centres need new buildings, and 133 need repairs. 75 Sub-Centres need water and power supply. 73 Sub-Centres need separate quarters for ANMs to stay. 13 Sub-Centres are located far away from the villages and need to be shifted within the villages for better accessibility to the people. 10 Sub-Centres are functioning from rented houses.

Many health institutions lack adequate furniture, examinations tables, delivery tables, steps, and other items like stool, bench, almirahs, tables and chairs.

At the district level, South Garo Hills district has no hospital, while West Khasi Hills district, East Garo Hills district and West Garo Hills district have no dispensaries. Table 3.3 gives the distribution of public sector health care institutions in the districts of Meghalaya and in Table 3.4 we report certain other indicators of availability of health infrastructure in the districts of Meghalaya.

Table 3.3: District-wise Distribution of Public Health Care Institutions in Meghalaya, 2008

District	Hospitals	CHCs	PHCs	Dispensaries	Sub-Centres	UHCs
East Khasi Hills	4	5	22	9	65	9
West Khasi Hills	1	5	17	-	65	-
Jaintia Hills	1	5	16	1	72	1
Ri Bhoi	1	4	8	2	28	-
East Garo Hills	1	3	16	1	72	-
West Garo Hills	1	5	18	-	82	2
South Garo Hills	-	1	7	1	21	-
Total	9	28	104	14	405	12

Source: Director of Health Services (MCH&FW) Meghalaya, Shillong

Table 3.4: Some Other Indicators of Availability of Health Infrastructure in Meghalaya, 2007

Name of District	No. of PHCs/CHCs with functioning microscope	No. of PHCs/CHCs with LTs	No. of villages/habitations	No. of vil-lages with ASHA	No. of vil-lages with trained ASHA	ABER in PHCs
East Khasi Hills	24	28	980	867	0	3.6
Ri Bhoi	10	12	597	517	250	23.1
West Khasi Hills	17	22	1024	946	891	4.1
East Garo Hills	14	20	922	952	919	9.2
Jaintia Hills	16	21	519	552	349	17.4
West Garo Hills	23	24	1507	1660	1660	29.3
South Garo Hills	8	8	701	515	952	23.4
Total	112	135	6250	6009	5021	14.3

Note: ABER – Annual Blood Examination Rate
ASHA – Accredited Social Health activist

Source: Director of Health Services (MCH&FW) Meghalaya, Shillong

3.2.4 PRIVATE SECTOR HEALTH INFRASTRUCTURE

Table 3.5 shows the names and bed-strength of the well known private hospitals in Meghalaya. In addition to the Private Hospitals listed in Table 3.5, there are also a few other private institutions, which provide only outdoor services or deal with specialized subjects only. The two of the better known are:

- 1) Ramakrishna Mission Dispensary, Shillong, for outdoor services only.
- 2) Sanker Nursing Home, Shillong, for Mental Health Care Services. It is having both Indoor and Outdoor facilities.

Besides, there are a number of dispensaries in the rural areas, mainly run by Christian missionaries.

NGOs in health care: There is no mother NGO working in the State. However, there are a few active NGOs like Bosco-Reach out, Impulse NGO Network, Lions Club, Rotary Club, Inner Wheel Club, VHAM (Voluntary Health Association of Meghalaya), World Vision, Ka Lympung ki Seng Kynthei, Ka Synjuk ki Rangbah Shnongs and YMCA, that are involved in health care in various ways. Besides, there is a Livelihood Improvement programme implemented by the MRDS (IFAD and GOI funded programme) which has a small health component.

Table 3.5: Bed Strength of Selected Private Hospitals in Meghalaya

Sl. No.	Name of Private Hospitals	No of Beds
1.	K.J.P. Hospital, Shillong	600
2.	Nazareth Hospital, Shillong	500
3.	K.J.P. Hospital, Jowai	100
4.	Mission Hospital, Tura	60
5.	Holy Cross Hospital, Tura	50
6.	Holy Cross Hospital, Mairang	50
7.	Bethesda Hospital, Shillong	40
8.	Woodland Hospital, Shillong	150
9.	Bethany Hospital, Shillong	90
10.	Indian Red Cross Society, Shillong	10
Total	10 Hospitals	1650 beds

Source: Meghalaya RCH - II Action Plan 2005-2006

3.2.5 CENTRAL GOVERNMENT HEALTH INSTITUTIONS

The North East Indira Gandhi Regional Institute of Health and Medical Sciences (NEIGRIHMS), which is now commissioned and where the first batch of MBBS students have been enrolled, will have a 500 bedded Super-Specialty Hospital. However, there are a number of vacancies in the faculty in various departments. This Institute when fully functional can be utilized for giving 6 months training of Medical Officers on Obstetrics and Gynaecology, Paediatrics and Anaesthesiology. The Union Ministry of Health is likely to set up an Institute of AYUSH (Ayurveda Unani Siddha & Homeopathy) within the campus.

Military and Paramilitary Health Institutions:- There are a number of military and paramilitary hospitals and dispensaries around Shillong. Some of the main such institutions are: (1) Military Hospital, Shillong (2) BSF Hospital, Shillong (3) Assam Rifle Hospital, Shillong and (4) Air Force Hospital, Shillong. These hospitals also coordinate with the state health authorities on preventive and promotive health care services such as immunization and other RCH services, besides organizing health camps for the community.

CGHS and ESI: Meghalaya also has Central Government Health Scheme (CGHS) and Employees' State Insurance (ESI) services at a very modest level.

Regional Directorate of Health Services, Ministry of Health, GOI, Shillong: This Regional Directorate also has an important role in health care services for Meghalaya particularly in connection with National Anti-Malaria Programme and RCH Programme. Some of the important and essential activities are the verification and confirmation of the correctness of positive and negative blood-slide

smears in diagnosis of malaria parasites, the training of Microscopists for correct diagnosis of malaria parasites, and the quality control of some contraceptives.

3.3 Public Sector Health Organization in Meghalaya

The Health and Family Welfare department in the Government is headed by a Minister and assisted by officials in the Secretariat for policy and programme direction. The responsibility of delivery of services rests with the Directorates and subordinate institutions.

From 1972 till about 1986 the entire health department had a combined Director of Health Services (DHS) having the administrative control and jurisdiction over civil surgeons in the districts. Dr Orlando Lyngdoh, who was the Vice Principal of one of the oldest colleges in India (Assam Medical College, Dibrugarh), became the first Director of Health Services.

During mid 1987-88, the directorate was trifurcated into 3 directorates, namely: (1) Director of Health Services (Medical Institutions), (2) Director of Health Services (MCH & FW) and (3) Director of Health Services (Research & Vaccine production etc).

The Director of Health Services (MI) is responsible for the direction, control and administration of various aspects of Medical Health Institutions including construction. Various needs of the hospitals, CHCs, PHCs, sub-centres, dispensaries and other health set up relating to disease control programmes including manpower, medicine, equipments and other logistics and coordination are under the command of this office. Besides, curative, preventive and promotive health care services and also matters relating to malaria, TB, Leprosy, Blindness, Cancer and HIV/AIDS, are coordinated and controlled by this Directorate. Programmes of AYUSH, Drugs control, sanitation and food inspection is also under the command of this office. All establishment matter of Paramedics, nurses, and others are under its control. This Directorate has a very important synergistic role for major services under the NRHM.

The Director of Health Services (MCH & FW) looks after the various promotive and preventive Health Care services mainly the RCH Programme, the Universal Immunisation Programme (UIP), Iodine Deficiency Disorders Control Programme, Vital Statistics, Demography, and the Regional Family Welfare Training Centre, etc., of the family welfare programmes. This Directorate has also an important role in services under the NRHM.

The Director of Health Services (Research) looks after the following:- (i) Pathological Investigations (ii) Biochemical Investigations (iii) Blood-Bank Services (iv) Production of Vaccines (v) Quality Control of Vaccines (vi) Food and Drugs testing laboratory (vii) Anti Rabies Vaccines inoculation Centre. The Pasteur Institute, Shillong is under his administrative Control.

Recently, the **National Rural Health Mission (NRHM)** was launched by the Government of India. Almost all the different Health Care Services of the above three Directorates will fall directly or indirectly under the umbrella of NRHM. This is leading towards integration and coordination of Health Care Services at all levels within the state. Success of this Mission will ultimately lead to quality health care being accessible to all, particularly the rural population of the state. Under the NRHM, there is a *Mission Director* assisted by programmatic consultants, managers and others right down to the Block level. Integrating services, coordination, decentralization with accountability and achieving the outcomes will be its most challenging task.

3.4 Problems and constraints of health sector in Meghalaya

Current problems faced by the health care services in Meghalaya include:

1. Persistent gaps in manpower and infrastructure especially at the secondary and tertiary health care levels and poor referral services.
2. Sub-optimal /improper utilization of the infrastructure and resources including manpower resources.
3. Various health institutions (Government, voluntary and private) do not have appropriate manpower, diagnostic and therapeutic services and drugs.
4. Low absorption capacity for programme funds.
5. Massive intrastate differences in performance as assessed by health and demographic indices; availability and utilisation of services being poorest in the most needy areas.
6. Sub-optimal inter-sectoral coordination; poor coordination among various services provided by directorates.
7. Lack of innovation and adaptation.
8. Poor capacity of personnel and poor exposure to technological advances.
9. Growing dual burden of communicable and non-communicable diseases because of demographic, lifestyle and environmental transitions.
10. Increasing awareness and expectations of the population regarding health care services.
11. Lopsided emphasis on short term, quick fix solutions; lack of long term planning and delivery of services.
12. Escalating costs of health care, ever widening gap between what is possible and what the individual or the state can afford.
13. Lack of an adequate management information system for planning, monitoring and evaluation.

3.5 Human Resources for Health Services

The selection by the World Health Organisation (WHO) of the theme "*Human Resource for Health*" for observation of the World Health Day, 2006 is particularly relevant for Meghalaya. Most of the CHCs in Meghalaya function without specialists. At the village level, the curative, preventive and promotive health care services are provided and looked after by Sub-Centres through the Female Health Workers (ANMs) and Male Health Workers, by working in close co-ordination with the community mainly through the help of the recognized workers like ASHAs, AWW, Trained Birth Attendants (Traditional Dais), FTDs (Fever Treatment Depots), DTCs (Disease Treatment Centres) and Village Health Committees.

Meghalaya has no Medical College. However, a welcome development is the setting up of NEIGRIHMS with under graduate and post graduate study facilities as noted in section 3.2.5 above. In

Meghalaya there is an acute shortage of specialized manpower (Doctors) in Obstetrics & Gynaecology, Paediatrics, General Surgery and Anaesthesia. The Government of Meghalaya has requested the Government of India to allot more seats for MBBS Course and post-graduate courses in various Medical Colleges in the Country. Under RCH - II, a proposal was incorporated in the State Programme Implementation Plan to undertake supplementary training of six months duration for selected Medical Officers of the state in urgently needed specialized subjects for proper functioning of CHCs and FRUs. These are yet to fructify.

For requirement of nursing staff, etc. there are 5 training centres in the public sector which include: 1 Regional Health and Family Welfare Training Centre, 2 GNM training centres, and 2 Nursing Training Schools and 1 ANM training school. The State Government had also submitted its requirement of 2 additional GNM Training Schools to be set up at Tura Civil Hospital and Jowai Civil Hospital. The proposal of setting up of a paramedical training institute and for strengthening of the existing Government Nursing Schools and ANM Training Centres should be given priority. In order to build capacity in the health sector the Government of Meghalaya has provided land for setting up of Indian Institute of Public Health.

Emphasis is also being given to the development of trained manpower to cope with the increasing demand of increasing strength of manpower *vis-à-vis* the increasing bed strength in the State. The present Doctors: Patient ratio is 1: 5000 and the Nurse: Patient ratio is 1: 1700.

Table 3.6: Existing and Additional Requirement of Manpower in Health Sector of Meghalaya (2007)

Manpower	Existing	Additional Requirement
Specialist Doctors	78	200
General Duty Stream	471	200
Dental Surgeons	36	25
Nursing Professional (GNM and ANM)	1232	500
Allied Health Professional (Para-medical staff)	350	200

3.6 Public Expenditure on Health Sector in Meghalaya

Public investment has been recognized as an indicator of planning priorities. But investment in public health in the country as a whole – and in Meghalaya – does not show that health care has been given due importance. In Meghalaya, the Government funding and Plan expenditure had increased from Rs.16.65 crore in the Seventh Plan to Rs.54.72 crore during the Eighth Plan. Further in the Ninth Plan the expenditure was more than Rs 150 crore which again saw an increase of expenditure to the extent of Rs. 205 crore during the Tenth Plan. These figures do not include the annual expenditure of about Rs 50 crore under non- plan and expenditure in cash and kind under various Central and Centrally Sponsored health sector programmes including that of the NRHM which if absorbed well can exceed more than Rs 100 crore annually. The proposed state Plan outlay during the 11th plan is more than Rs 600 crore.

Table 3.7 shows at a glance, the year wise percentage of expenditures on Health & Family Welfare from the consolidated fund of the Government of Meghalaya. However, as mentioned above the table does not take into account the expenditure under various national health programmes, funds for which are directly received in various health programme societies, including the State Committee on Voluntary Action (SCOVA) and State Health Society implementing RCH and NRHM programmes. The assessment of such funds has not been done so far.

Table 3.7: Expenditure on Health & Family Welfare in Meghalaya

Year	State Total Revenue and Capital expenditure (Rs. lakh)	State Revenue and Capital expenditure for H & FW (Rs. lakh)	Expenditure for H & FW as percentage of total
1999-2000	85864.37	6368.00	7.4 percent
2000-2001	103697.08	7050.59	6.8 percent
2001-2002	102447.99	8206.93	8.0 percent
2002-2003	109579.18	8186.40	7.5 percent
2003-2004	182084.77	8256.43	4.5 percent
2004-2005	207234.21	9194.87	4.4 percent
2005-2006	200709.28	9602.81	4.8 percent
2006-2007	232010.25	9910.97	4.3 percent
2007-2008 (R.E.)	344846.82	12742.89	3.7 percent
2008-2009 (B.E.)	397322.38	15484.94	3.9 percent

Note: (a) Does not include direct programmatic fund and material flow from GOI.

(b) R.E. – Revised Estimates, B.E. – Budget Estimates

Source: Government of Meghalaya “Budget at a Glance”, various issues.

As per estimates during the 11th Plan following fund is likely to flow to the sector: (a) State Plan - Rs. 450 - 500 crore; (b) Funding under NRHM and other Centrally Sponsored Schemes - Rs 450 crore (approx.); (c) from NEC, NLCPR and other agencies of GOI - Rs 150 crore. (d) Non-Plan fund - Rs. 500 crore. Thus, about Rs 1400-1500 crore may be available if programmes are managed well.

The central resources to the overall public health funding have been limited to about 15 percent only. There is also inherent problem of absorption of programmatic fund due to various factors. The current annual per capita public health expenditure is no more than Rs 200. But with the launching of NRHM by the Government of India, it is expected that things will greatly improve. This expectation is mainly because the NRHM also aims at commitment of the Government of India to increase public spending on health from 0.9 percent of GDP to 2 - 3 percent of GDP, during the Mission period from 2005 to 2012. It remains to be seen how well the entire health sector absorbs the fund and the managers in the state leverage and perform under NRHM. The initial years show somewhat tardy progress in the matter in the state which requires concerted and expeditious mode of action. It is a matter of record that the health sector failed to utilize a possible expenditure of Rs 22.0 crore, which was slashed down to Rs. 6 crore, which ultimately was utilised for a paltry sum of about Rs 50 lakh or so for similar mission mode programme under the European Commission Programme during 2000-2005.

3.7 Health Indicators in Meghalaya

With difficult hilly terrain and poor road connectivity in the rural areas, the shortage of proper health infrastructure, manpower, and the trend of financial investment/absorptive capacity on health by the State Government etc. as discussed earlier, we cannot expect much about the improvement of health conditions of the people and about the accessibility of health care services to the people, particularly the remote vulnerable sections of the rural population of Meghalaya. Poor human-resources management and poor work culture of the service providers at different levels of the health systems, have further worsened the situation. This is evident from some of the recent available health indicators for Meghalaya that are mentioned below.

The health indicators given below are based on the following sources:

- 1) The National Family Health Surveys (NFHS-1, NFHS-2, NFHS-3)
- 2) The Sample Registration System Surveys (SRS, Monthly Surveys)
- 3) The Rapid Household Surveys for RCH Services (1998-99 & 2002-2004)
- 4) Monthly/ Quarterly reports of Health & Family Welfare Department (Management Information System Reports)
- 5) The Birth and Mortality Survey, 2007¹

The health indicators from the first three services of the independent agencies above are not for the whole State or for every part of the State of Meghalaya. They only show the status of health conditions and health services provided for a few selected villages and urban areas and a few households of Meghalaya. For example, the NFHS-2 covered only about 1250 households (out of about 3 lakh households of Meghalaya), and about 1000 couples (out of more than 2 lakh couples). Therefore, the figures may be taken to be indicative only.

The health indicators from the monthly reports of the Health and Family Welfare Department are often considered unreliable, because they are given and reported by the service providers themselves, though they cover more than 60 percent of the villages of the State. However, those reports are also important because it is also their objective to invite corrective measures by the higher level authorities of the health system.

1. Infant Mortality Rate (IMR): The IMR is one of the most important indicators of the health status because of its correlation with a number of health and economic characteristics like poverty, illiteracy, health and education of the mother, access to health care facilities and so on. In this Report, we have used IMR as one of the components of the HDI. The IMR in Meghalaya in 2007 was 52.28 per 1000 live births (Table 3.8). South Garo Hills is observed to have the highest IMR (102) among all the districts. Other districts with IMR above the state average are East Garo Hills, West Khasi Hills, Ri Bhoi, and Jaintia Hills. In other words, the moderate IMR of the state is because of low IMR in East Khasi Hills and West Garo Hills only.

As per SRS survey, the IMR for Meghalaya in 2006 was 53 (table 3.9). It is lower than the National average of 57. The rural IMR was 54 for Meghalaya, 62 for all India; urban IMR was 43 for Meghalaya and 39 for all India. Among the states in the North Eastern Region, Assam had the highest IMR of 67. The rest of the NE states showed IMRs that were lower than Meghalaya. (SRS Bulletin, October 2007).

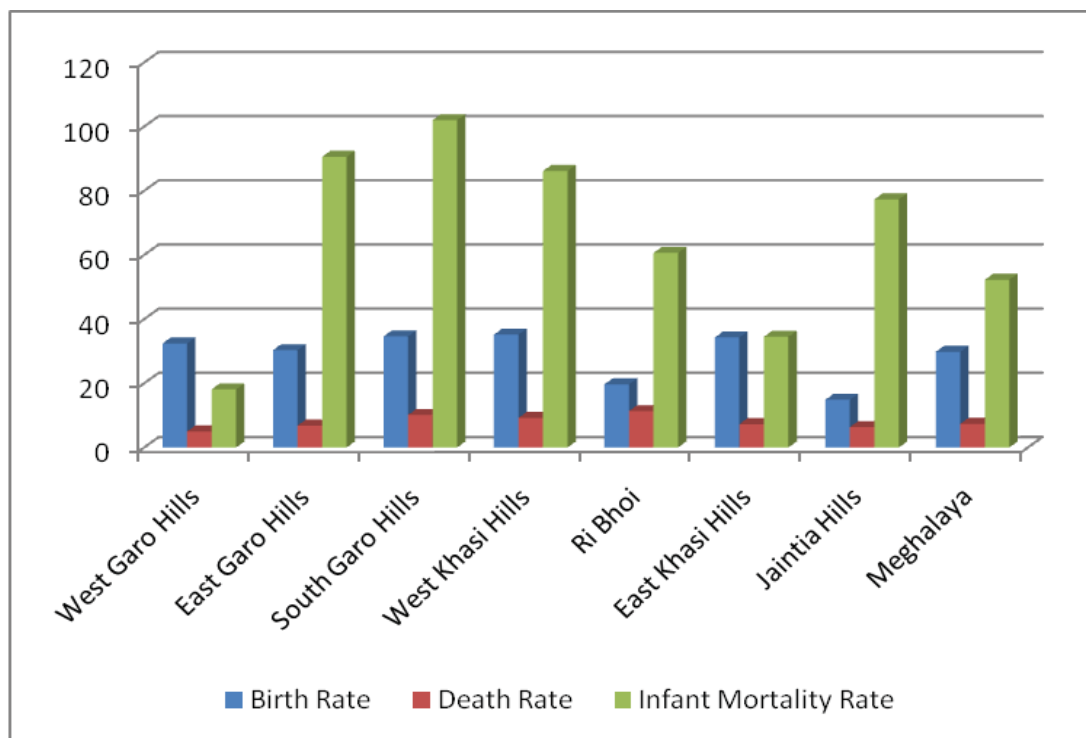
2. Birth Rate, Death Rate and Natural Growth Rate: The crude Birth Rate of the state in 2007 is 29.81 per 1000 population and the crude Death Rate is 7.36. The difference between the two yields the natural growth rate which is 22.45. Ri Bhoi district has the highest death rate in the state. South Garo Hills too exhibits a high death rate of above 10 per 1000 population. West Khasi Hills also reports relatively high number of deaths.

As per SRS Bulletin, October 2007, the birth rate of Meghalaya was 24.7 and death rate was 8.0 yielding a natural growth rate of 16.7. These indicators are more or less at par with the national level figures which were 23.5, 7.5 and 16.0 respectively. Among the NE states, however, Meghalaya has the highest birth rate and also the highest death rate except Assam with death rate of 8.7.

¹See Technical Notes for a description of this Survey

Thus, Meghalaya shows poor performance in IMR, Birth rate, and death rate compared to the other small states of North Eastern Region.

Figure 3.1: Birth Rate, Death Rate and Infant Mortality Rate in Districts of Meghalaya, 2007



Source: Birth and Mortality Survey, 2007

- 3. Fertility and Family Planning:** As per NFHS-3² (2005-06), the total fertility rate or number of children per woman in Meghalaya was 3.8. It has declined from 4.57 in 1998-99. However, this is much above the national average of 2.7. Other states with total fertility rate of 3 and above are Uttar Pradesh, Rajasthan, Madhya Pradesh, Jharkhand, Arunachal Pradesh and Nagaland.

The contraceptive prevalence rate for currently married women is the lowest at 24 percent in Meghalaya among all the states in India. The national average is 56 percent. It is highest in Himachal Pradesh at 73 percent followed by West Bengal at 71 percent. A state closer to Meghalaya performance in this regard is Nagaland at 30 percent.

Unmet need for family planning among currently married women is 13 percent for the country as a whole. Among the states, the lowest is 5 percent in Andhra Pradesh and the highest is Meghalaya with 35 percent. In addition to Meghalaya, more than 20 percent of women have an unmet need for contraception in Nagaland, Jharkhand, Bihar and Uttar Pradesh.

- 4. Maternal Health Care:** At the all India level, as per NFHS-3, 52 percent of mothers had three or more antenatal care (ANC) visits. Meghalaya figure is slightly above the national average at 53.4 percent. The lowest percentage is in Bihar at 17 percent and the highest in Kerala, Goa and Tamil Nadu with at least 90 percent. However, other indicators are below the national level. The percentage of births assisted by doctors/ nurses/ LHV/ ANM or other health personnel is 31.7 percent in Meghalaya; 47 percent for all India. The percentage of institutional births is 29.7 percent in Meghalaya; 39 percent for all India. The percentage of mothers who receive post natal care from

²Available at <http://www.nthsindia.org>.

doctors/ nurses/ LHV/ ANM or other health personnel is 28.8 percent in Meghalaya; 42 percent for all India. Besides, Meghalaya is among the states where the provision of IFA (iron and folic acid) supplements was far below the national average. Other states in this category include Nagaland, Bihar, Arunachal Pradesh, Jharkhand and Uttar Pradesh.

With such poor indicators of maternal health care, it is no surprise that the number of maternal deaths to women aged 15-49 years in Meghalaya is unacceptably high. As per the Birth and Mortality Survey, 2007 the Maternal Mortality Rate is 47 per 1,00,000 living women aged 15-49 years. The Maternal Mortality Ratio (MMR) is 402 per 1,00,000 live births to women aged 15-49 years.

- 5. Child Health and Nutrition:** Children are considered fully immunized if they receive one BCG injection to protect against tuberculosis, three doses each of DPT (diphtheria, pertussis, tetanus) and polio vaccines, and one measles vaccine. In 2005-06, as per NFHS-3, in India only 44 percent of children aged 12-23 months are fully vaccinated and 5 percent have not received any vaccinations. Less than one-third of children are fully vaccinated in Nagaland, Uttar Pradesh, Rajasthan, Arunachal Pradesh and Assam. At the other end of the spectrum, at least three-fourths of children have received all the recommended vaccinations in Tamil Nadu, Goa and Kerala. In Meghalaya, only one-third (32.8 percent) of children are fully immunized.

NFHS-3 collected information on the prevalence and treatment of three health problems in children – acute respiratory infection (ARI), fever and diarrhoea. 77 percent of children with diarrhoea in the two weeks preceding the survey were taken to a health facility. Besides, 68 percent of children with diarrhoea in Meghalaya were given ORS (oral rehydration salts). 52 percent with ARI or fever were taken to a health facility.

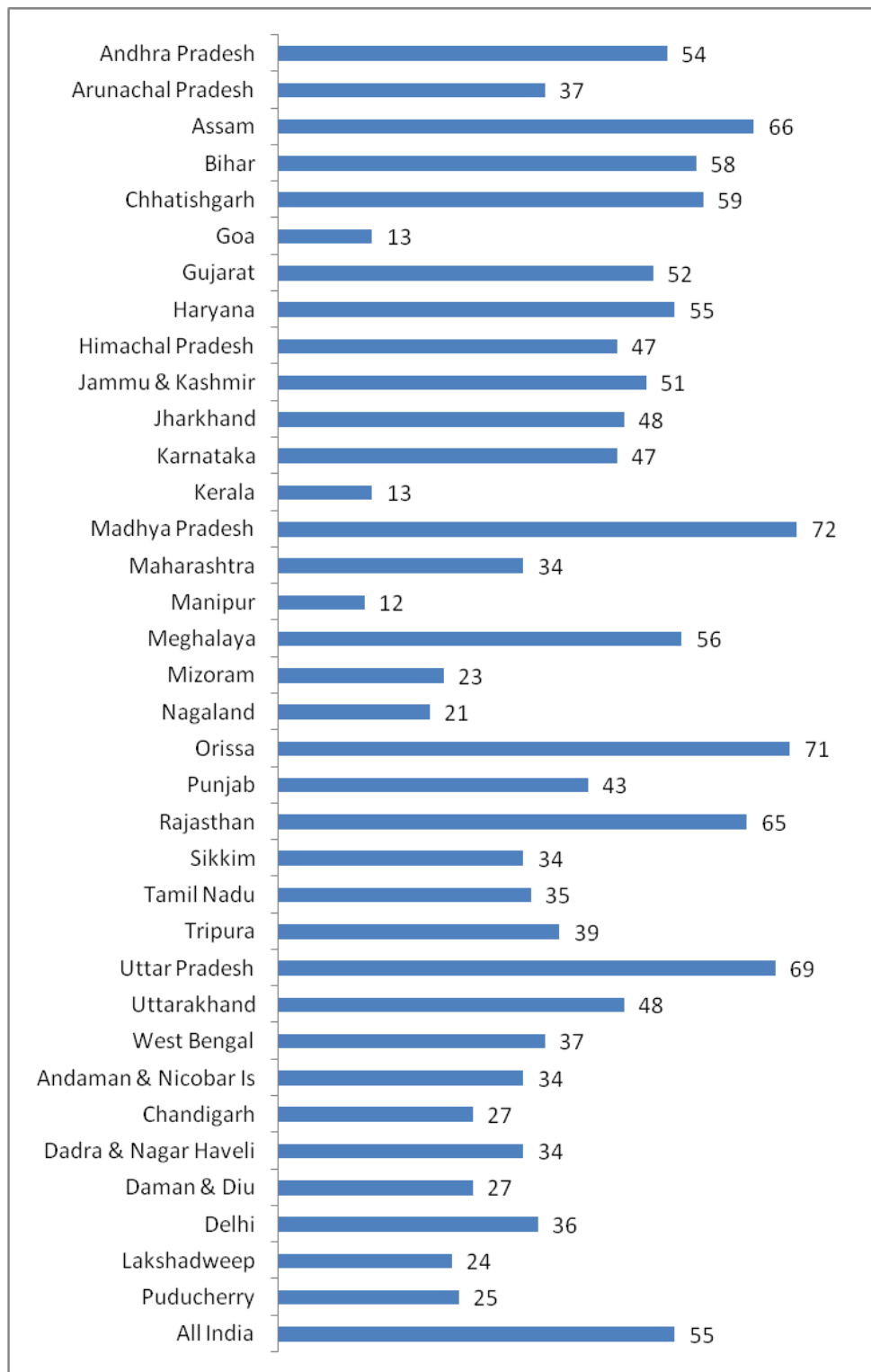
The Government of India recommends that children should be given vitamin A supplements every six months until they reach the age of 3 years starting at age 9 months. NFHS-3 found that only one-quarter of children at the all India level aged 12-35 months received vitamin A supplements in the six months before the survey. The figure for Meghalaya is lower at 20 percent.

58.6 percent of children below 3 years of age in Meghalaya were breastfed within one hour of birth. 26.3 percent of children age 0-5 months were exclusively breastfed in Meghalaya, while the figure for all India is slightly less than half.

At the all India level 48 percent of children below 5 years of age are stunted and 43 percent are underweight. Wasting is quite a serious problem in India, affecting 20 percent of children. In Meghalaya, 42 percent are stunted, 46 percent are underweight and 28 percent are wasted. These figures point to a very sad state of Undernutrition. Nutritional problems are least evident in Mizoram, Sikkim, Manipur and Kerala. Even in Goa and Punjab with relatively low levels of Undernutrition, the levels of Undernutrition are unacceptably high.

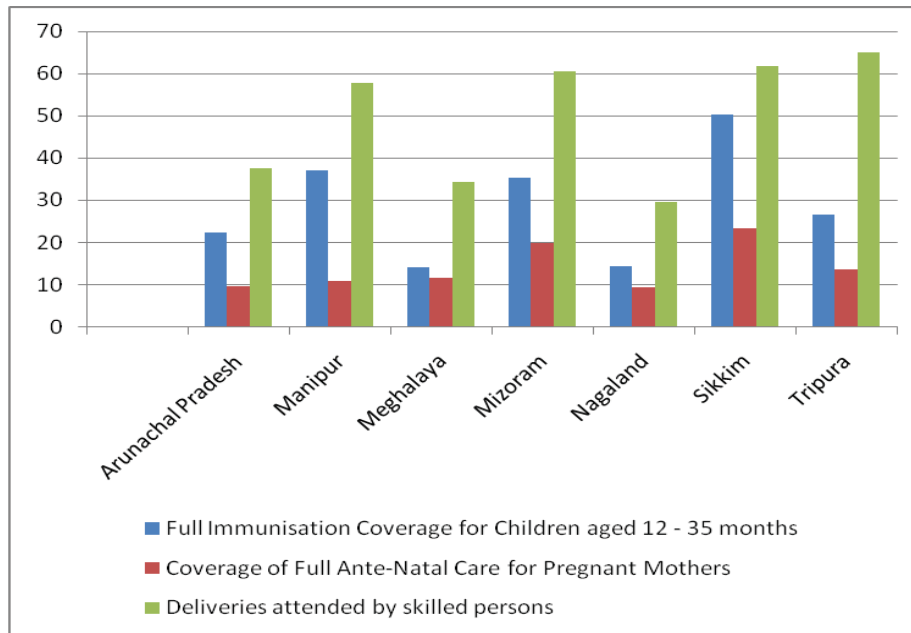
Anaemia is a very common problem in India. 79 percent of children aged 6-35 months are anaemic in the country as a whole. In Meghalaya, the figure stands at 68.7 percent. NFHS-3 reports that although state differentials in the prevalence of anaemia are marked, a high prevalence of anaemia is found in every state. The only states in which less than half of children are anemic are Goa (38 percent), Manipur (41 percent), Mizoram (44 percent) and Kerala (45 percent).

Figure 3.2: Infant Mortality Rates of the States/UTs of India, 2007



Source: IMRs for bigger states are for the year 2007; for smaller states and Union Territories they are based on three year period 2005-2007 (SRS Bulletin, Vol 43, No. 1, October 2008).

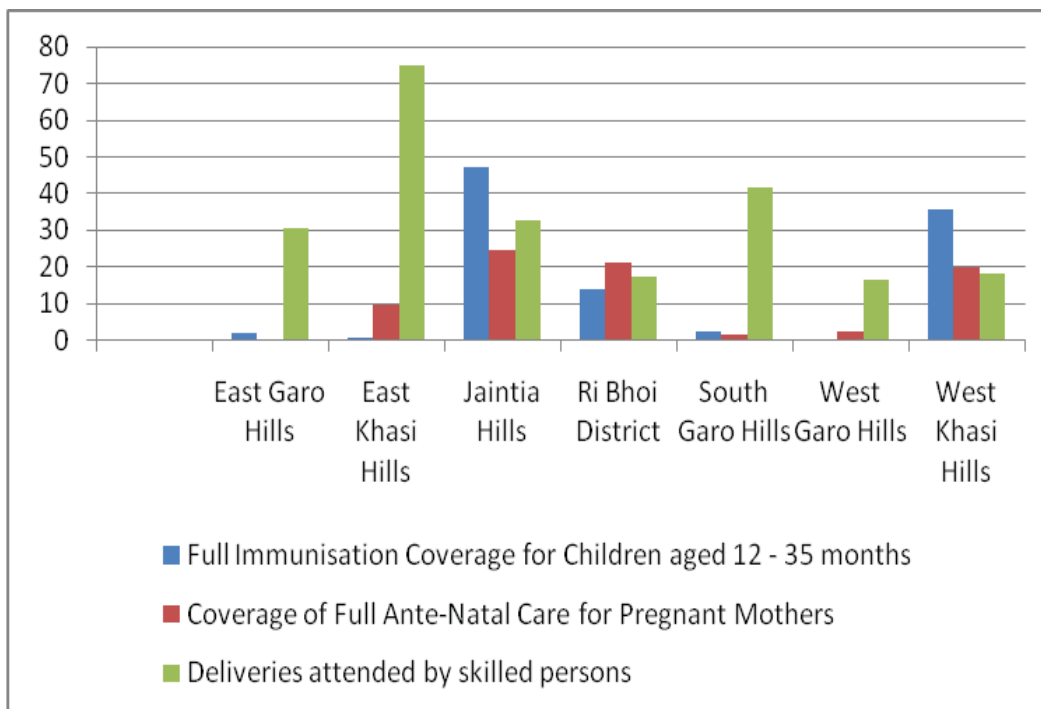
Figure 3.3: Comparison of Performances (in percentage) in Health Care among the NE States, 2002-04



Note: Figures are as per Table 3.12

Source: Rapid Household Surveys for RCH Services

Figure 3.4: Comparison of Performances (in percentage) in Health Care among the Districts of Meghalaya, 2002-04



Note: Figures are as per Table 3.13

Source: Rapid Household Surveys for RCH Services

- 6. Women's and Men's Nutrition:** NFHS-3 collected information on the height and weight of women aged 15-49 and men aged 15-54. The height and weight measurements provide an estimate of the body mass index (BMI), a measure of nutritional status. The BMI is defined as weight in kilograms divided by height in metres squared (kg/m^2). A cut-off point of 18.5 is used to define thinness or acute Undernutrition and a BMI of 25 or above indicates overweight or obesity.

In Meghalaya 14 percent (36 percent in all India) of ever married women have BMI below normal. 8 percent (34 percent in all India) of ever married men have BMI below normal. Thus, Meghalaya exhibits relatively low levels of Under-nutrition of men and women. The proportion of women who are undernourished is highest in Bihar (45 percent), Chhattisgarh (43 percent), Madhya Pradesh (42 percent) and Orissa (41 percent). It is lowest in Sikkim (11 percent). The highest proportions of undernourished men, two in five, are in Madhya Pradesh and Rajasthan.

Obesity, the other side of poor nutrition, is a substantial problem among several groups of women in India, particularly urban women, educated women, women from households with a high standard of living, and among Sikhs. In India, 15 percent of ever married women are overweight and obese. The figure is less than half of the all India average in Meghalaya at 7 percent.

Anaemia is a major health problem for adults as well as in children. It affects 55 percent of women and 24 percent of men in India. In Meghalaya too the problem is serious with significantly less gender differential. It affects 45.4 percent of ever married women aged 15-49 and 34.2 percent of ever married men aged 15-49 in Meghalaya. 56 percent of pregnant women in Meghalaya are anaemic. This leads to high prevalence of anaemia among children as we have seen above.

- 7. HIV/AIDS Knowledge:** Although the spread of AIDS is a major concern in India, only 61 percent of women and 84 percent of men in the 15-49 age group have heard of AIDS. The figures are lower for Meghalaya – 57 percent in case of women and 63 percent in case of men. Nationwide, only 17 percent of women and 33 percent of men have 'comprehensive knowledge' of HIV/AIDS. 'Comprehensive knowledge' means they know that a healthy-looking person can have HIV, that HIV/AIDS cannot be transmitted through mosquito bites or by sharing food, and that condom use and fidelity help prevent HIV/AIDS. Knowledge about HIV/AIDS is relatively widespread in Mizoram (where two-thirds of both women and men have comprehensive knowledge) and in Delhi and Manipur (where more than two in five women and three in five men have comprehensive knowledge). At the other extreme, in Assam, West Bengal and Meghalaya, less than 15 percent of men – and even fewer women – have comprehensive knowledge of HIV/AIDS.

Only 3 percent of women and 4 percent of men have ever been tested for HIV in the country as a whole. Coverage of HIV/AIDS testing among men ranges from a minimum of 1 percent in Rajasthan, Assam, Uttar Pradesh and Meghalaya to a maximum of 14 percent in Goa.

Table 3.8: Estimated Birth Rate, Death Rate, Natural Growth Rate and Infant Mortality Rate in Meghalaya, 2007

Districts	Birth Rate	Death Rate	Natural Growth Rate	Infant Mortality Rate		
				Male	Female	Total
West Garo Hills	32.43	4.99	27.44	18.96	17.32	18.13
East Garo Hills	30.34	6.81	23.53	96.75	84.83	90.60
South Garo Hills	34.61	10.12	24.49	88.08	114.99	102.01
West Khasi Hills	35.17	9.20	25.98	91.51	81.14	86.17
Ri Bhoi	19.68	11.33	8.35	53.09	68.28	60.63
East Khasi Hills	34.28	7.27	27.01	27.26	41.43	34.51
Jaintia Hills	14.85	6.32	8.53	97.64	55.80	77.34
Meghalaya	29.81	7.36	22.45	51.55	52.99	52.28

Source: Birth and Mortality Survey, 2007

Table 3.9: Health Indicators of Meghalaya as per SRS surveys

Sl. No.	Indicators	April 2004	April 2005	April 2006	October 2007	October 2008
1.	Birth Rate	25.8	24.7	25.2	24.7	24.4
2.	Death Rate	7.7	7.4	7.3	8.0	7.5
3.	Natural Growth Rate	18.1	17.3	17.8	16.7	16.9
4.	Infant Mortality Rate	61	57	54	53	56

Note: IMRs are based on three-year periods 2001-03, 2002-04, 2003-05, 2004-06 and 2005-07 respectively.

Source: SRS Bulletin, various issues.

Table 3.10: Health Indicators of Meghalaya as per Rapid Household Surveys for RCH Services

Sl. No.	Key Health Indicators	1998-1999	2002-2004
1.	Percentage of Marriage below 18 years by girls	8.8	16.7
2.	Percentage of birth order 3+	57.0	59.5
3.	Percentage of eligible women who know all the modern Family Planning Methods	20.7	2.3
4.	Couple Protection Rate by any mode (%)	13.2	14.7
5.	Percentage of unmet needs for Family Planning Services	52.7	55.8
6.	Percentage of pregnant women who received any Ante-Natal Care Service	55.0	54.6
7.	Percentage of pregnant women who received Full Ante-Natal Care Service	30.9	11.7
8.	Percentage of Institutional Deliveries	33.4	30.9
9.	Percentage of safe Deliveries	35.6	34.5
10.	Percentage of children age 12 to 35 months who are fully immunized	32.7	14.1
11.	Percentage of children age 12 to 35 months who do not get any immunization	18.0	18.7

Source: Rapid Household Surveys for RCH Services

Table 3.11: Health Indicators of Meghalaya as per NFHS-1, NFHS-2, NFHS-3

Sl.No	Health Indicators	NFHS-1 (1992-1993)	NFHS-2 (1998-1999)	NFHS-3 (2005-2006)
1.	Percentage of women aged 20-24 who married by age 18 years	28.1	25.5	24.5
2.	Percentage of men aged 25-29 who married by the age of 21 years	-	-	27.1
3.	Total Fertility rate (Children per woman)	3.73	4.57	3.80
4.	Percentage of unmet needs for Family Planning services	25.1	35.5	35.1
5.	Percentage of unmet needs for spacing of births	20.6	23.4	23.2
6.	Percentage of unmet needs for limiting children	4.6	12.1	11.9
7.	Percentage of pregnant mothers who had at least 3 Antenatal visit	41.4	32.0	53.4
8.	Percentage of births assisted by Doctors/Nurses/LHV/ANM/other health personnel	37.9	20.6	31.7
9.	Percentage of Institutional Births	31.0	17.3	29.7
10.	Percentage of mothers who received post-natal care from doctors/Nurses/LHV/ ANM/other health personnel	-	-	28.8
11.	Percentage of Children 12-23 months fully immunized	9.7	14.3	32.8
12.	Percentage of children who received a vitamin A dose in the 6 months preceding the survey	-	-	19.9
13.	Percentage of children with diarrhoea in the 2 weeks preceding the survey who received ORS	41.5	22.4	67.7
14.	Percentage of children with diarrhoea in the 2 weeks preceding the survey who were taken to a health facility	68.3	44.1	76.6
15.	Percentage of children with ARI or fever in the 2 weeks preceding the survey taken to a health facility	-	-	51.6
16.	Percentage of children under 3 years who were breastfed within one hour of birth	8.6	26.7	58.6
17.	Percentage of Children 0-5 months exclusively breastfed	-	-	26.3
18.	Percentage of children 6-9 months receiving solid or semi-solid foods and breast milk	-	-	76.3
19.	Percentage of children under 3 years who are stunted	47.1	44.9	41.7
20.	Percentage of children under 3 years who are wasted	17.8	13.3	28.2
21.	Percentage of children under 3 years who are underweight	44.4	37.9	46.3
22.	Percentage of children 6 - 35 months who are anaemic	-	67.6	68.7

23.	Infant Mortality Rate (IMR)	64	89	45
24.	Percentage of ever-married women aged 15-49 who are anaemic	-	63.3	45.4
25.	Percentage of pregnant women aged 15-49 who are anaemic	-	58.6	56.1
26.	Percentage of ever-married men aged 15-49 who are anaemic	-	-	34.2
27.	Percentage of ever-married women aged 15-49 whose body mass index is below normal	-	25.8	13.7
28.	Percentage of ever-married men age 15-49 whose body mass is below normal	-	-	8.0
29.	Percentage of ever-married women age 15-49 who are overweight and obese	-	5.8	7.1
30.	Percentage of ever-married men age 15 -49 who are overweight and obese	-	-	8.2
31.	Percentage of currently married women who usually participate in household decisions	-	-	83.4
32.	Percentage of women aged 15-49 who have heard of AIDS	26.7	44.2	56.8
33.	Percentage of men aged 15-49 who have heard of AIDS	-	-	62.6
34.	Percentage of women aged 15-49 who know that consistent use of condom reduces the chances of getting HIV/AIDS	-	-	24.1
35.	Percentage of men aged 15-49 who know that consistent use of condom reduces the chances of getting HIV/AIDS	-	-	49.0

Source: NFHS-1, NFHS -2, NFHS - 3

Table 3.12: State-wise Performances of the North Eastern States in Key Health Indicators as per the Rapid Household Survey, 2002-2004

State	Full Immunisation Coverage for Children aged 12 - 35 months	Coverage of Full Ante-Natal Care for Pregnant Mothers	Deliveries attended by skilled persons	Unmet needs for Family Planning Services	
				For limiting	For spacing
Arunachal Pradesh	22.5	9.8	37.7	21.9	13.3
Manipur	37.0	10.9	57.8	25.6	15.3
Meghalaya	14.1	11.7	34.5	19.5	36.2
Mizoram	35.3	20.0	60.6	8.9	16.1
Nagaland	14.4	9.5	29.6	14.7	19.2
Sikkim	50.2	23.5	61.9	12.9	5.2
Tripura	26.7	13.6	65.1	18.5	6.6

Note: Figures are in percentages

Source: Rapid Household Surveys for RCH Services

Table 3.13: District-Wise Performances in Meghalaya in Key Health Indicators as per the Rapid Household Survey, 2002-2004

District	Full Immunisation Coverage for Children aged 12 - 35 months	Coverage of Full Ante-Natal Care for Pregnant Mothers	Deliveries attended by skilled persons	Unmet needs for Family Planning Services	
				For limiting	For spacing
East Garo Hills	2.0	0.2	30.8	30.9	31.5
East Khasi Hills	0.7	9.7	74.7	24.5	33.2
Jaintia Hills	47.2	24.6	32.7	3.7	37.5
Ri Bhoi District	14.0	21.2	17.3	17.7	39.1
South Garo Hills	2.6	1.5	41.8	11.7	31.5
West Garo Hills	0.3	2.5	16.7	22.3	37.6
West Khasi Hills	35.7	20.0	18.3	3.5	32.4
Meghalaya	14.1	11.7	34.5	19.5	36.2

Note: Figures are in percentages

Source: Rapid Household Surveys for RCH Services

Table 3.14: Health Indicators as per MIS reports of the Health and Family Welfare Department of the State Government of Meghalaya

Sl.No.	Indicator	2002 - 2003	2003 - 2004	2004 - 2005	2005 - 2006
1.	Maternal Mortality Rate	453	446	445	292
2.	Neo-Natal Mortality Rate	28	23	25	22
3.	Infant Mortality Rate	46	40	43	42
4.	Percentage of Registration of pregnant mothers	79	81	77	101
5.	Percentage of registered pregnant mothers protected by TT immunization	52	45	53	66
6.	Percentage of pregnant mothers who received 3 Ante-Natal Care health Check Ups	53	48	53	50
7.	Percentage of Institutional Deliveries	28	29	34	35
8.	Percentage of Safe Deliveries	57	60	67	70
9.	Percentage of Fully Immunized infants	41	43	49	71
10.	Percentage of mothers who received at least 3 post natal check ups	51	51	54	46
11.	Number of children suffering from measles	1413	868	1687	1625
12.	Number of children who died of measles	12	13	13	55
13.	Number of children suffering from Whooping cough	154	502	225	184
14.	Number of children who died of Whooping cough	2	2	0	11
15.	Number of children suffering from Diarrhoea	91160	86215	84253	81178
16.	Number of children who died of Diarrhoea	135	87	68	157
17.	Number of children suffering from ARI & Pneumonia	99178	94594	92858	85240
18.	Number of children who died of ARI & Pneumonia	113	125	117	118

Source: MIS Report of the Health and Family Welfare, Department, Government of Meghalaya

3.8 Utilization of Health Care Services in Meghalaya

Utilization of services is an essential indicator reflecting the quality of services. Better quality of services would have a higher utilization rate, and this is very important from a policy point of view, because unless clients are satisfied with the services provided by the Government, all efforts made by the Government will be wasted.

As per the District level household survey, 2004 conducted by the Taleem Research Foundation of the IIPS the following findings were reported from the four Districts of Meghalaya about the clients' perception of the quality of Government health care services:-

East Khasi Hills District - 42% of the women have pointed out about the inconvenience of the location of the health facility, and 40 percent of them about the inconvenience of extended waiting time. By and large, 58-94 percent of them have rated the services and the quality of care as "Good" (i.e. neither bad nor excellent). The percentage of women visiting Government Health Facility is higher in urban areas as compared to rural areas. The percentage of women who needed to visit health facility and visited private health facility is also more in urban areas (11%) as compared to rural areas (3%).

Most of the currently married women have also reported that they did not feel the necessity of visiting the Government health centres because of heavy rush. About 32% of them preferred to visit private health facilities than Government health facilities. About 6 percent of these women also mentioned that time is not suitable as the reason for not visiting Government health facilities.

West Garo Hills District: - 16 percent of the women respondents have pointed out about the inconvenience of the location of Government health facility, and 78 percent of them about the inconvenience of the extended waiting time. About 78 percent of them also expressed dissatisfaction with Medical, Surgical and diagnostic equipments. By and large, 45-78 percent of these women have rated most of the services and other aspect of quality of health care services as "Good" (i.e. neither bad nor excellent). Most of the currently married women have reported that they did not feel the necessity of visiting the Government health centres because Doctors/health workers do not examine properly. Due to inconvenient time at the Government health centers 49 percent of them preferred to visit private health facilities.

South Garo Hills District:- Regarding the perception of women on the services provided on the Government health facilities, respondents have pointed out that extended waiting time (46 percent), general discomfort (72 percent), dissatisfaction with Medical, Surgical and Diagnostic equipments (70 percent) are the main concerns at the Government health facility. By and large, 50-76 percent of these women have rated most services and other aspects of quality care services as "Good" (i.e. neither bad nor excellent). The percentage of women visiting Government health facility is higher in urban areas (30 percent) as compared to rural areas (7 percent). Women who visited private health facility are from urban areas only.

Ri Bhoi District:- Regarding the perception of women on the services provided in the Government health facilities, respondents have pointed out the extended waiting time (34 percent), and dissatisfaction with Medical, Surgical and Diagnostic equipments (40 percent), as the main concerns at the Government health facilities. By and large, 60-89 percent women have rated most services and other aspects of quality care services as "Good" (i.e. neither bad nor excellent). Most of the currently married women have reported that they did not feel the necessity of visiting the Government health centres because 'reference' by the Government doctors and poor quality of services. About 6 percent of the women preferred to visit private health facility than Government health facility due to

inconvenient location of the Government health centre; and about 7 percent mentioned that “time is not suitable” as the reason for not visiting Government health centres.

Similar perceptions of the clients are taken to be there in the remaining three districts of Meghalaya (i.e. Jaintia Hills District, West Khasi Hills District and East Garo Hills District). Since one of the goals of the National Health Policy, 2002 is to increase the ‘utilization’ of public health care service facilities by the clients from the current level of less than 20 percent to more than 75 percent by 2010, it is necessary that steps should be taken by the State Government of Meghalaya to address and solve all the above mentioned difficulties relating to less utilization of health services facilities by the patients at the Government health centres.

3.9 Some National Diseases Control Programmes

In this section, we mention briefly some of the health care services in Meghalaya in connection with some National Diseases Control Programmes.

3.9.1 NATIONAL LEPROSY ERADICATION PROGRAMMES (NLEP)

In connection with the disease “Leprosy”, the goal of the National Health Policy, 2002 of the Government of India was to eliminate Leprosy by the year 2005. This National Goal could not be achieved by India by this time frame. In this aspect, it appears from the available statistics that Meghalaya is far ahead of many states in India. As it is at present in Meghalaya, the state comes under the category of “very low endemic state” for Leprosy, with the prevalence rate of less than 1 case per 10,000 persons. As on September 2008, the balance case of leprosy in the state is 41 with the prevalence rate of 0.15 per 10,000 persons. Meghalaya is sensitive to early detection, and early effective treatment for prevention of deformities. Necessary activities for detection are mostly taken care of, and all diagnosed Leprosy patients were treated with Multi Drug Therapy (MDT). Most of the required drugs are received from the Government of India.

The activities being undertaken in Meghalaya are briefly mentioned as follows:-

- (a) Survey:- Survey for leprosy cases is carried out by all the 7 districts through different Leprosy centres.
- (b) Training:- The trainings concerned with NLEP have been taken up by the Districts from time to time.
- (c) Health Education:- The prime objectives of health education are to increase awareness about Leprosy and to encourage patients and their families about the importance of continuing regular treatment and to dispel antagonism against Leprosy patients.
- (d) Community Participation in NLEP:- Involvement and support of the community is being encouraged to facilitate achieving of NLEP.
- (e) Treatment:- All the leprosy patients were treated with Multi Drug Therapy (MDT) with the drugs received from the Government of India.
- (f) Encouragement of Self-reporting:- This is mainly to encourage those clients who need confirmation or elimination of Leprosy whenever they doubt or suspect themselves to be suffering.

The Infrastructural Unit of NLEP set-up in the State, as it is up to 31st December 2006, is as follows: -

- (a) Number of Leprosy Control Units (LCU) = 2 (in Ri Bhoi & East Garo Hills)
- (b) Number of Urban Leprosy Centre (ULC) = 1 (in Tura)

- (c) Number of Temporary Hospitalization Ward (THW) = 1 (in Ri Bhoi District)
- (d) Number of Leprosy Colonies = 2 (1 in West Garo Hills and 1 run by Missionaries of Charity in Ri Bhoi which needs monitoring)
- (e) Number of Survey Education Treatment Centres (SET) = 20 (in all districts except South Garo Hills)

Meghalaya Leprosy Eradication Society:- The Meghalaya Leprosy Eradication Society (MLES) was formed on the 28th September 2000. Under this State level Society there are 7 District Leprosy Societies headed by D.Cs.

Epidemiological status of Leprosy in Meghalaya is shown in Table 3.15.

Table 3.15: Annual physical targets and achievements for Leprosy eradication

Years	Registered cases at the beginning of the year	Cases newly detected during the year	Number of cured cases	Others discharged/ Migration	Prevalence rate per 10000 population
1997-1998	505	92	181	2	2.34
1998-1999	414	275	172	24	2.74
1999-2000	493	81	437	39	0.45
2000-2001	98	59	89	-	0.30
2001-2002	68	50	48	-	0.30
2002-2003	70	78	59	-	0.37
2003-2004	89	17	74	-	0.13
2004-2005	32	27	17	-	0.16
2005-2006	42	16	27	-	0.12
2006-2007	42	17	15	-	0.12
2007-2008	42	17	15	-	0.12
2008-2009 (Sept.)	43	15	19	2	0.15

Source: State Leprosy Officer, Meghalaya, Shillong.

3.9.2 POLIO ERADICATION PROGRAMME

One of the goals of the National Health Policy, 2002 was to eradicate poliomyelitis by the year 2005. Unfortunately, up to the end of the year 2006 also, the disease could not be eradicated from India and there were still many cases of Poliomyelitis during 2006, although Meghalaya had only one polio case in 1997 and no more since then.

The state of Meghalaya has a great role to help the country to eradicate poliomyelitis through the Universal Immunisation programme (UIP) and through the National Polio Surveillance Project (NPSP) of the Government of India and the World Health Organisation. Through the UIP, the state is continuing to do all its efforts to improve the coverage of Routine Immunisation by giving 3 (three) doses of OPV for infants and one booster dose of OPV for children above one year to 2 years of age. In addition, all the children below 5 years of age were also given OPV immunization through special Intensive Pulse Polio Immunisation (IPPI) programme, and this will continue as long as poliomyelitis is not eradicated from the country.

Table 3.16: Cases of Polio (Wild Polio Virus) in India

Year	India	North Eastern States	Meghalaya
1997	NA	4	1
1998	1934	1	0
1999	1126	0	0
2000	265	0	0
2001	268	1	0
2002	1600	0	0
2003	225	1	0
2004	134	0	0
2005	66	0	0
2006	666	2	0

Source: National Polio Surveillance Project Unit, Shillong.

The success to eradicate poliomyelitis from our state and from India as a whole will now depend much on the effort, sincerity and effectiveness of the “National Polio Surveillance Project (NPSP) of the Government of India and WHO. Under this project there are many units all over India. For Meghalaya we have one such unit at Shillong called the “NPSP Unit: Shillong Meghalaya” with one Surveillance Medical Officer and supporting staff to function the unit. A very important activity done by this unit is “Surveillance” for detecting polio cases through the “Acute Flaccid Paralysis Surveillance programme” covering all the seven districts of Meghalaya. This Surveillance of Ante Flaccid Paralysis (AFP) is being done under the guidance and supervision of Surveillance Medical Officer of the WHO, with the active support and help of the District Medical & Health Officers, and District MCH officers of all the seven districts of Meghalaya.

3.9.3 NATIONAL AIDS CONTROL PROGRAMME (NACP) IN MEGHALAYA

The phase I (1993-1998) of the National Aids Control Programme in Meghalaya actually began in March 1994. The programme initially was implemented through a State AIDS cell; later a society was registered on the 20th of August 1998 to implement the programme. Phase II of the programme (1999-2004) was implemented through the Meghalaya AIDS Control Society (MACS). The goal of the National Health Policy, 2002 was to achieve zero level HIV/AIDS by 2007 with programmatic sub components viz. Programme management, Surveillance and Clinical Management, Control of STD, Blood Safety, Information Education and Communication (IEC), and Training (Capacity Building).

NACP III is being implemented from 2007. The overall goal of NACP-III is to halt and reverse the epidemic in India over the next five years by integrating programmes for prevention, care and support and treatment. This aim is to be achieved through a four-pronged strategy:

- Prevent infections through saturation of coverage of high-risk groups with targeted interventions (TIs) and scaled up interventions in the general population.
- Provide greater care, support and treatment to larger number of people living with HIV or AIDS (PLHA).
- Strengthen the infrastructure, systems and human resources in prevention, care, support and treatment programmes at district, state and national levels.
- Strengthen the nationwide Strategic Information Management System.

Programme Management: The programme is headed by a Project Director cum Member Secretary of the Society (MACS) who is a senior Officer of the Health department in the rank of the Joint Director of Health services. The President of the MACS is the Principal Secretary to the Government of

Meghalaya. The Project Director is assisted by several officers and staff as per the recommendation of NACO. The authority of the society is the Governing Body, with the heads of concerned departments as members including the 3 Directors of Health Services.

Surveillance and Clinical Management: Although implementation of the programme began in 1994, the process for detection of HIV/AIDS began way back in 1990 when Elisa Reader was supplied to the Pasteur Institute Blood Bank by IMCR. The first sero-positive case in Meghalaya was detected in the year 1990.

At present there are 2 places where testing of HIV is being carried out. One is at the zonal blood testing (ZBTC) at Pasteur Institute where only blood for transfusion purposes is tested, the other is at the Voluntary Testing and Counseling centre at Civil Hospital Shillong where blood meant only for case-diagnosis or Surveillance are also tested. Confirmation of samples tested positive is sent to Calcutta for the Western Blot Test. Phase II of the programme envisages extending HIV testing facilities to at least all the District Headquarters. Establishment of two new voluntary testing and Counseling Centres have been proposed at Tura Civil Hospital and Jowai Civil Hospital during 2007.

Only cases that are referred by doctors who have pre-test counseled the patients, are being tested for HIV. The result of the test are kept strictly confidential and communicated only to the doctor who referred the case for testing, so that post-counseling could be carried out by the same doctor who referred the case.

Till date out of a total of 18,563 samples screened up to December 2006, 96 positive cases were detected and 10 full-blown AIDS cases reported and out of which 2 death cases reported.

Sentinel Surveillance: In order to monitor the trend of HIV transmission, Countrywide Sentinel Surveillance is being conducted amongst various risk groups from time to time. Eleven rounds of Sentinel Surveillance have been completed through Feb - Mar 1998, Aug - Oct 1998, Aug - Oct 1999, Aug. - Oct. 2000, Aug. - Oct. 2001, Aug. - Oct. 2002, Aug-Oct 2003, Jul-Oct 2004, Aug-Oct 2005, Sept - Dec 2006 & Oct-Dec 2007. In these studies, two risk groups of population are being monitored (High-risk behaviour being the STD cases and the Low risk behaviour being the Antenatal Mothers). The method is 'unlinked anonymous' wherein the identity of the individual cannot be ascertained (this is the standard practice). The current situation of Sentinel Surveillance 2008 has already been initiated from the 1st November 2008 and is expected to be completed by 31st January 2009.

Table 3.17: Status of Facilities for Surveillance and Integrated Counseling and Testing Centre (ICTC)

Sl. No.	Institution	Status of facility for sentinel surveillance	ICTC (functioning since)
1.	Ganesh Das Hospital, Shillong	ANC Clinic	ICTC(2007)
2.	Tura Civil Hospital, West Garo Hills	STD Clinic	ICTC(2005)
3.	Jowai Civil Hospital, Jaintia Hills	STD Clinic	ICTC(2006)
4.	San-Ker Rehab Centre, Shillong	IDU	
5.	Baghmara CHC	STD Clinic	ICTC(2008)
6.	Williamnagar CHC	STD Clinic	ICTC(2007)
7.	Phulbari CHC	ANC Clinic	
8.	Nongstoin CHC	STD Clinic	ICTC(2007)
9.	Nongpoh CHC	STD Clinic	ICTC(2005)
10.	Shillong Civil Hospital	STD Clinic	ICTC(2002)
11.	Resubelpara CHC	ANC Clinic	
12.	NEIGRIHMS (GOI)		ICTC(2008)

Note: ANC – Ante Natal Care; STD – Sexually Transmitted Diseases; IDU – Injecting Drug User.

Source: Project Director Meghalaya AIDS Control Society, Shillong.

Control of STD: Sexually Transmitted Disease is recognized as a co-factor for the transmission of HIV infection. The STD Clinics at the District Headquarter Hospitals are therefore being strengthened. To extend the treatment of STD cases to the PHC level, the Medical Officers are trained on the “Syndromic Management” and Reporting of STD cases. Five rounds of “Family Health Awareness Campaign” have been conducted in the State to create awareness among the rural population on STD/HIV/AIDS. The 6th round of the “Family Health Awareness Campaign” implemented from 15th to 30th April 2003 and 7th round was implemented from 27th February – 13th March 2006.

Integrated Counseling and Testing Centre (ICTC): An ICTC is a place where a person is voluntarily counseled and tested for HIV or as per advice by a medical provider and confidentiality is maintained. The main functions of an ICTC include: early detection of HIV; provision of basic information on modes of transmission and prevention of HIV/AIDS for promoting behavioural change and reducing vulnerability and to link people with other HIV prevention, care and treatment services. Besides 9 already functional ICTC as in table 3.17, steps are initiated during the month of August 2008 with Nazareth Hospital, Shillong and Holy Cross Health Centre, Mairang for ICTC.

Blood Safety: To ensure proper screening of blood transfusion, a Zonal Blood Testing Centre (ZBTC) was established at Pasteur Institute, Shillong in the year 1990. Linkages were made with other Government and Private Blood Banks. All the Blood Banks in the State have been licensed which includes: -

1. Pasteur Institute Blood Bank, Shillong	-	Government
2. Nazareth Hospital Blood Bank, Shillong	-	Private
3. K.J.P Synod Hospital Blood Bank, Shillong	-	Private
4. Military Hospital Blood Bank, Shillong	-	Military
5. Tura Civil Hospital, Blood Bank, Tura	-	Government
6. Blood Bank NEIGRIHMS	-	Government

State Blood Transfusion Council was constituted and registered on the 7th of March 1997. In the Project Documents of Phase II and Phase III of the programme, proposals have been made for establishing at least one District Level Blood Bank at all district Headquarters in phased manner. Presently there is an effort to set up blood banks at Jowai and Williamnagar. A Blood Bank Component Separation Unit has been sanctioned by NACO for Shillong Blood Bank since 2004 which is yet to be made functional.

Training: The Physicians Responsible for AIDS Management (PRAMs) have been trained. Training of Doctors on the diagnosis, management, counseling, recording and reporting of HIV/AIDS cases was carried out in the year 1995 and 80 percent of the doctors could be trained. Training of all categories of workers (Medical & Paramedical) with updated materials on HIV/AIDS will be taken up shortly. Training of the Trainers (TOT) for specialists and the senior medical officers of the state has been completed. These trained doctors will train all the medical officers of the state at District Level training workshops. Training of Medical Officers, Laboratory Technicians and Nurses on HIV/TB is already completed.

Targeted Intervention (TI) Programme:

- 1) The Targeted Intervention Project for truckers at Lad Rymbai, Jaintia Hills District was being implemented by Voluntary Health Association of Meghalaya with effect from 5th July 2004.
- 2) Another Targeted intervention project for truckers from Jorhat to 20th Mile in Ri Bhoi district was

being implemented by North East Society for the promotion of Youth and Masses (Shillong Desk) (NESP YM), Meghalaya with effect from 5th July 2001 to 5th July 2004.

- 3) The third TI project for Female Sex Workers in Shillong, East Khasi Hills District is being implemented by the Impulse NGO Network (INGON) with effect from 21st June 2004.

Further, the Meghalaya AIDS Control Society will take up another 11 Targeted Interventions with 6 of them to be implemented in the 1st round and another 5 in the next round. The following are the areas where targeted interventions will be implemented:

Table 3.18: Targeted Intervention Programme for Control of AIDS in Meghalaya

Sl.No	Target Group	Area of Implementation	District	Implementor (NGOs)
First Round				
1.	Injecting Drug users	Jowai	Jaintia Hills	Voluntary Health Association of Meghalaya
2.	Injecting Drug users	Tura	West Garo Hills	BAKDIL, Tura
3.	Injecting Drug users	Shillong	East Khasi Hills	Manbha Foundation
4.	Female Sex Workers	Borsora	West Khasi Hills	Impulse NGO Network
5.	Truckers	Nangalbibra	South Garo Hills	BAKDIL, Tura
6.	Female Sex Workers	Shillong	East Khasi Hills	Impulse NGO Network
Second Round (2008-09)				
1.	Female Sex Workers	Madanriting	East Khasi Hills	Yet to be decided
2.	Migrants	Lad Rymbai	Jaintia Hills	Yet to be decided
3.	Migrants	Borsora	West Khasi Hills	Yet to be decided
4.	Female Sex Workers	Nangalbibra	South Garo Hills	Yet to be decided
5.	Female Sex Workers	Khliehriat	Jaintia Hills	Yet to be decided

Source: Project Director Meghalaya AIDS Control Society, Shillong.

The Joint Appraisal Team (JAT) for the implementation of Targeted Intervention Projects had recently conducted the inspection of NGOs which had proposed to implement the above mentioned targeted interventions.

Mainstreaming: Under the Mainstreaming Programme of Meghalaya AIDS Control Society two State Level Programmes were organized on Social Responsibility and Mainstreaming on HIV/AIDS on the 11th July 2008 and 28th July 2008 respectively at the United Nations Office on Drugs and Crime (UNODC) Office, Dhankheti, Shillong. Different Government Departments such as the Directorate of Health Services, NRHM, Social Welfare, Education, Sports and Youth Affairs, the Media Personnel, etc. attended the programme. Amongst the NGOs and Civil Societies, Manbha Foundation; Voluntary Health Association of Meghalaya; CSWO; Synjuk ki Rangbah Shnong; Impulse NGO Network; Chdoo Dei Maya, Mihmyntdu; etc. attended the same. The programmes highlighted the importance of participation of the different departments and NGOs in the HIV/AIDS Programmes. The participants also gave different ideas and suggestions so as to improve the current ongoing HIV/AIDS programmes and activities in the state.

Anti-Retroviral Treatment (ART Centre): The ART centre at Civil Hospital Shillong, East Khasi Hills District of Meghalaya became fully functional since November 2006. The status is shown in Table 3.19.

Table 3.19: Number of HIV Cases and ART Patients

Month	No. of Registered Cases				Cases Put under Treatment				No. of ART Patients who died			
	M	F	C	T	M	F	C	T	M	F	C	T
Nov'06- Dec'06	0	0	0	0	0	0	0	0	0	0	0	0
Jan'07 - Dec'07	26	18	3	47	7	7	0	14	0	0	0	0
Jan'08- Oct'08	21	30	1	52	16	11	0	27	2	1	0	3
Total	47	48	4	99	23	18	0	41	2	1	0	3

Note: M- Male, F- Female, C- Children, T- Total

Source: Project Director Meghalaya AIDS Control Society, Shillong.

Information, Education and Communication (IEC): Activities had been targeted through various strategies to raise the awareness amongst the general public. Mass awareness had been generated through AIR, Doordarshan and Press Personnel, community leaders and in collaboration with NGOs. Efforts have also been made in the areas of mass awareness through printing, distribution of posters, pamphlets and stickers in local languages and English. Outdoor publicity like hoardings, wall-paintings and rock paintings, etc has been installed along the National Highway. Preventive education for students and youth has been carried out but mainly in urban areas.

The efforts of '*Committee of Concern*' in particular during 2002-2005 supported by the UNODC, various NGOs and community leaders and the health and social welfare department were laudable in this respect.

A Pilot Programme of *Family Health Awareness week* in two Districts (Jaintia Hills and South Garo Hills) in April - May 1999. A preliminary evaluation has shown that there is a huge unmet demand for health services in this area. A large number of people, especially women attended the camps and the PHCs for treatment of Reproductive Tract Infections and STDs. With this positive experience of the pilot programme, an expanded programme called "*Family Health Awareness Campaign*" was launched in 3 Districts, namely, East Khasi Hills, East Garo Hills and Ri Bhoi districts from the 1st – 15th December 1999. Third round of the "Family Health Awareness Campaign" was implemented in all the Districts of the State from 1st June to 16th June 2000. The fourth round of the campaign was implemented in the state from 1st April to 15th April 2001 and the 5th round was implemented from 1st February to 15th February 2002 and the 6th round was implemented from 15th April to 30th April 2003 and 7th round was implemented from 27th February – 13th March 2006.

Red Ribbon Club (RRC): Preventive Education for student youth are being carried out through launching of Red Ribbon Club (RRC) in ten colleges in collaboration with NSS and one at Community Level in collaboration with Nehru Yuvak Kendra (NYK), launched on 12th August 2008 by Education Minister, Meghalaya at NEHU Guest House Auditorium. The MACS also conducted advocacy and sensitization of Principals, Programme Officers, NSS and peer educators on formation of RRC in their colleges.

MACS Radio: MACS Radio was conceptualized with the objective of spreading awareness on HIV/AIDS in the state of Meghalaya through an entertainment packed programme. MACS Radio will be a pre-recorded weekly programme aired on All India Radio (AIR), Shillong. Experts from different fields of HIV/AIDS will talk on their topic of expertise. The Programme would also incorporate a live phone-in session once a month. Meghalaya AIDS Control Society (MACS) would be also producing spots in all three local languages, which would also serve as a good advertising tool for MACS Radio. Spots produced by MACS would also be aired on an FM channel. Super Hits 93.5 South Asia FM (SFM) has been identified for this purpose.

Monitoring & Evaluation: To strengthen the CMIS reporting, induction training was conducted for the Counsellor & Laboratory Technician from STD Clinics, Targeted Interventions and ICTC Counsellor & Laboratory Technicians. The programme for the prevention of HIV/AIDS was started in Meghalaya in March 1994. At this point of time all the 7 districts of the state are under “C” category. There are various known hot spot areas in the region where there is a chance for the spread of HIV infections from the various High Risk Groups and other vulnerable populations to the general population of the State. *Though the prevalence in ANC site as per the Sentinel Surveillance is 0 in the year 2004 and 2005, nearly 9% of the 400 samples selected reported VDRL positive.* This shows the presence of High-risk behaviour in the general community and therefore the need for a comprehensive response for HIV prevention in the state.

3.9.4 MEGHALAYA STATE VECTOR BORNE DISEASE CONTROL SOCIETY

The State Malaria Control Society which was formed in 1983 has been re-named as the State Vector Borne Diseases Control Society with the objective of achieving full prevention and control of Vector Borne Diseases. Under it 5 District Level DVBDSCS has been formed.

3.9.5. NATIONAL ANTI MALARIA PROGRAMME (NAMP) IN MEGHALAYA

The goal of the National Health Policy, 2002 was to reduce mortality due to malaria by 50 percent by the year 2010. The NEER has tropical monsoon climate which varies from western to eastern parts. The mean summer temperature is 26°C while mean winter temperature is 9°C. Epidemiologically, the state is highly endemic for Malaria except Shillong and its suburbs. The three districts of Garo Hills are classed as Red-Hot and all areas along the international and inter-state border are considered high risk for Malaria. For the purpose of this national programme, the State Government of Meghalaya has 5 District Malaria Offices. 38 PHC, with 208 sub-centres, are located in high risk area. Malaria is one of the major killer diseases in the state.

Intensified Malaria Control Programme (IMCP): Intensified Malaria Control Project under Global Fund to fight AIDS, Tuberculosis and Malaria (GFATM) has been implemented in the state since October 2005. The specific goal is to reduce Malaria morbidity by 30 percent and mortality by 50 percent within 5 years. Major activities are:

1. Early Detection and Prompt Treatment

- For all fever cases Blood Slide Examination is done through PHC/CHC/Hospitals/Sub-centre/FTD and through Health Workers during home visits in different villages.
- Total Blood Smear Examined during 2007 were 3,15,464, total Positive cases were 33,979 and total Pf (*Plasmodium falciparum*) cases were 28,179. During 2008 till August, 2008 total blood smear examined were 2,15,268, total Positive cases were 24,027 and total Pf cases were 21,767.
- Rapid Diagnostic Kits (RDKs) are made available for immediate diagnosis and treatment of Pf cases.
- Health Workers, FTD (Fever Treatment Depots) or DDC (Drug Distribution Centres) holders, ASHAs are trained in the use of RDK in remote inaccessible areas with no laboratory facilities. Establishment of FTD in Border Outpost.
- Sp-Act is supplied for use in West Garo Hills identified as Pf resistance to Chloroquine.
- All anti-malarial drugs are being supplied from the Government of India.
- Out of a total number of 6009 ASHAs, 3620 ASHAs are being trained. Training is in process in the different district for use of RDK, Blood Smear Collection, etc.
- Till date 866 FTDs and 1624 DDCs have been established.

Surveillance Activity:

- A Blood Slide Collected from all cases with history of fever for the last 15 days through fortnight visit of Health workers to the villages.
- Passive Surveillance: - Blood Slide Collected from fever cases reported to PHC, Sub centres, FTD/DDC and other Health Centres.
- Target of Blood Slide Collection is 10 percent annually and 1 percent monthly.
- Presumptive treatment is given to all fever cases after blood slide collection and radical treatment given to all confirmed positive cases.

Incase of outbreak the following activities are carried out:

- Rapid fever survey or mass survey
- Fever radical treatment or Mass radical Treatment – with chloroquine and Primaquine
- Focal spray in case regular spray is not done.
- Entomological investigation.

Treatment Given:

- In Low Risk Area – Presumptive treatment – chloroquine
- High Risk Area – Chloroquine + Primaquine tablets
- Radical Treatment in all positive cases
- Drug resistant to Chloroquine - radical treatment with SP combination
- In case of outbreak or increased fever deaths blood test with RDK is done for immediate result and in case positive for Pf treatment, other equipment is needed for blood testing for malaria
- All villages in high risk areas will have a DDC/FTD where anti-malaria drugs are made available and facilities for blood smear collection are provided.

Table 3.20: Meghalaya Epidemiological Situation during 1997 – 2007

Year	Popu- lation (‘000)	B.S.C.	B.S.E	Positive Cases			Pf %	ABER	API	SPR	AFI	SFR	Deaths
				Pv	Pf	Total							
1997	2038	252997	252997	11327	10910	22237	49.1	12.4	10.9	8.8	5.4	4.3	11
1998	2130	237868	237868	9108	8510	17618	48.3	11.3	8.4	7.4	4.1	3.6	2
1999	2174	217925	217925	5645	9153	14798	61.9	10.0	6.8	6.8	4.2	4.2	5
2000	2178	187662	187662	4461	9238	13699	67.4	8.6	6.3	7.3	4.2	4.9	11
2001	2257	246996	246996	4740	15890	20630	77.0	10.9	9.1	8.4	7.0	6.4	17
2002	2306	235323	235323	6823	11095	17918	63.0	10.6	7.7	7.6	-	4.7	41
2003	2306	199113	199113	5913	12238	18151	67.0	8.5	7.9	9.2	-	6.1	38
2004	2306	217968	217968	2566	15516	18082	86.0	9.4	7.8	8.3	-	7.1	29
2005	2306	218660	218660	2058	14758	16876	88.0	9.4	7.2	7.6	-	6.7	41
2006	2306	290111	290111	-	-	29924	86.8	12.5	12.9	10.3	-	8.9	167
2007	2306	315464	315464	5780	28179	33979	82.9	13.6	14.7	10.7	-	8.9	237

Note: B.S.C. – Blood Slides Collected, B.S.E. – Blood Slides Examined, Pf - Plasmodium falciparum, Pv - Plasmodium vivax, ABER – Annual Blood Examination Rate, API- Annual Parasitic Incidence, S.P.R. – Slide Positive Rate, AFI – Annual falciparum incidence, SFR – Slide falciparum rate.

Source: Deputy Director of Health Services (Malaria) Meghalaya, Shillong

Table 3.21: Month-Wise Death Report due to Malaria in Meghalaya,
January 2007 to September, 2008

District	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
East Khasi Hills	2007	3	0	2	2	9	11	5	1	6	6	8	2	55
	2008	0	0	3	0	0	2	0						5
West Khasi Hills	2007	4	0	0	3	0	1	2	1	0	1	2	0	14
	2008	0	0	0	1	3	2	2						8
East Garo Hills	2007	0	0	1	8	6	7	0	0	0	0	0	-	22
	2008	0	0	3	2	3	1	0						9
West Garo Hills	2007	7	3	2	8	30	14	14	8	3	3	12	-	104
	2008	3	2	0	4	6	3	3	3	3				27
Jaintia Hills	2007	2	0	0	0	2	6	4	5	0	3	0	-	22
	2008	0	0	0	0	0	0	0						0
Ri Bhoi	2007	1	0	0	0	2	0	0	0	2	2	0	-	7
	2008	0	0	0	1	1	2	1						4
South Garo Hills	2007	4	1	2	1	3	2	0	0	0	0	0	-	13
	2008	1	0	0	0	0	1	0						2
Total	2007	21	4	7	22	52	41	25	15	11	15	22	2	237
	2008	4	2	6	8	13	10	6	3	3				55

2. Integrated Vector Control

Indoor Residual Spray: 2 rounds of DDT spray is given in all areas with API (Annual Parasitic Index) of 2 and above. The 1st Round is usually given on the 1st of March and the 2nd Round on the 15th of July.

Table 3.22: DDT Spray Coverage in Meghalaya

Year	Round	Population targeted	Covered	% Coverage	Room targeted	Covered	% Coverage
2005	I	13,84,312	9,45,898	68.3	6,89,286	37,412	54.2
	II	6,13,014	3,88,844	63.4	3,29,639	2,14,856	65.1
2006	I	11,68,078	7,61,650	65.0	5,59,724	3,69,253	65.0
	II	10,60,002	7,44,415	70.3	5,89,494	3,94,922	66.9
Focal Spray		4720	3319	70.3	2231	1483	66.4

Source: Deputy Director of Health Services (Malaria) Meghalaya, Shillong

Impregnated Bednets provided by GOI are being distributed; Insecticide Treatment of Bed nets (ITBN) is being carried out in all high risk areas especially in area with poor acceptance of spray, treatment of community owned bed nets is going on. About 115000 bednets provided by the GOI are being distributed during 2008-09. The total number of community owned bednets are 265097 of which 236611 are impregnated with insecticides. The number of households having at least 2 ITBN is 13,815.

Table 3.23: Distribution of Bednets received from the Government of India, June 2007 to July 2008

District	No. of Villages	No. of Households	No. of bednets distributed
Ri Bhoi	275	11215	25300
East Khasi Hills	76	4117	
West Khasi Hills	111	3246	16100
East Garo Hills	64	11500	23000
Jaintia Hills	98	7491	16100
West & South Garo Hills	295	18367	34500
Total	919	55936	115000

Source: Deputy Director of Helath Services (Malaria) Meghalaya, Shillong

Table 3.24: Status of Insecticide Impregnation of Community Owned Bednets

District	Total Number of COBN	Number of Community Owned Bednets Impregnated
East Khasi Hills	39856	30780
Jaintia Hills	21186	45906
West Garo Hills	115000	108282
East Garo Hills	36000	19327
West Khasi Hills	53055	32316
Total	265097	236611

Source: Deputy Director of Helath Services (Malaria) Meghalaya, Shillong

Besides the above, 17,000 bednets were distributed from private donations.

Training and Awareness Camps: All categories of health staff, NGOs, Community Volunteers are being trained in Malaria Control. IEC (Information, Communication and Education) activities are being carried out throughout the year to create awareness on the prevention and control of malaria. These are done through awareness camps, inter-sectoral meetings, print and other media and public and private partnership through involvement of armed and paramilitary forces especially in border villages for IEC activities; health care; supervision activities during spray, ITBN, etc; local NGOs and private hospitals in different anti – malaria activities. IEC Activities taken up recently include: motivation and sensitization of Medical Officers in East Garo Hills, East Khasi Hills and Jaintia Hills; sensitization meeting with CRPF unit at Rongjeng; IEC meeting with ASHAs, AWWs and other health staff; advocacy meeting with the Ri Bhoi District Officials and public leaders; advocacy meeting for political leaders and other Government officials; awareness camp at Umpling and Dawki; inter-sectoral meeting at Diengpasoh; motivation of the spray squads; visiting the affected families for BCC.

The IMCP: Target and achievement of the 1st and 2nd years of IMCP up to December 2006 are given in Table 3.25.

Table 3.25: Target and achievement of Intensified Malaria Control Project upto December, 2006

Particulars	Target 1 st yr (July'05 -June'06)	Achievement 1st year	Target 1 st qtr (July – Sept 06)	Achievement 1st quarter	Target 2 nd quarter (Oct – Dec 06)	Achievement 2 nd quarter
No. of PF cases treated with SP - Act						
	6218	1985	3109	21,443	6218	22508
No. of severe and complicated malaria treated with Artemisinine Injection						
	1196	1999	299	1,712	598	8074
No. of cases of severe and complicated malaria treated with SP-Act/Blister pack						
	1196	1999	299	6411	598	SP-9000 Blister-11,650
No. of health facilities equipped with Arteether Injection						
	82	141	21	53	41	80
No. of health facilities equipped with Rapid Diagnostic Kits (RDKs)						
	82	170	21	79	41	124
No. of health facilities equipped with Sp - Act						
	39	55	10	59	20	67
No. of Lab. Technicians trained in Malaria Microscopy						
	40	13	17	25	34	58
No. of sentinel sites established for monitoring Anti Malaria drug resistant						
	2	0	1	1	1	1
No. of household owning at least 2 (ITBN) Insecticides Treated Bed nets						
	33849	9134	16,159	12088	32,318	12088
No. of ITBN distributed						
	100000	Nil	0	0	0	
No. of community owned bednets treated						
	162500	79721	0	30759	0	39,173
No. of Sentinel Sites established for monitoring insecticide resistance.						
	2	0	2	0	2	0
No. of network of CBO (community based organizations) developed at District level						
	60	18	15	18	30	18
No. of local NGOs/CBOs Service deliver trained at District level						
	6	Nil	2	1	5	1
No. of Community Volunteers trained in Malaria Control Strategies						
	925	700	288	Nil	575	1030
No. of awareness camp organized at village level for treating bed nets						
	300	450	75	Nil	150	Nil

Source: Deputy Director of Helath Services (Malaria) Meghalaya, Shillong

Despite the above efforts, the problem of malaria persists in the state due to several factors, namely: Topography and climatic conditions; Water management deficiencies; Lack of approach road in far flung areas; Lack of adequate transport facilities; Socio-economic status and people's unconcern for own health and lack of initiative for prevention and self protection; Population movement and migration; Operational factors; Inadequate surveillance; Delayed and incomplete treatment of cases; Ineffective and inadequate Vector Control measures; Inadequate responsive laboratory services; Inadequate basic health infrastructure; poor dedication and motivation of officers and staff; Inadequate

Community participation; Poor FBOs (faith based organizations) /NGOs involvement; problems of inter-sectoral collaboration, poor response to PPP; malaria programme not being *fully integrated with general Health services*, etc. Besides, there are Parasitic and vector factors such as: *Parasitic factors*: Resistance of parasite to drugs; Increase Pf proportion and mortality; *Mosquito Vector factors*: Change of Behaviour, resting, feeding and response to Insecticides.

Box 3.1: Specific Constraints and Possible solutions under the National Anti Malaria Programme

Particulars	Constraints	Feasible solution
Early Detection & Prompt Treatment	<ul style="list-style-type: none"> • Delay in diagnosis and treatment • Time lag between BSC-BSE-Treatment • Inadequate responsive Lab- Services, lack of Microscopes or non-functioning/ Irreparable/ insufficient / delay in supply of logistics • Untrained Lab-Technicians 	<ul style="list-style-type: none"> • Use of RDK in remote and inaccessible areas. • HWs, ASHAs, FBOs having Dispensary trained for use of RDKs and Anti-Malaria drugs • District Level for Action Plan on transportation of Blood Slides by Private/ Public transport with the initiative of District Administration with the concerned Dept. • ASHAs may be made responsible for blood slides transportation. • Procurement of quality microscopes • Timely /adequate supply of logistics • Training /re-orient/ post training technical evaluation for Lab –Tech. • FTD to be made functioning in all villages
Integrated Vector Control	<ul style="list-style-type: none"> • Low coverage, poor acceptance, quality of spray not maintained. 	<ul style="list-style-type: none"> • Intensive IEC prior to spray programme on importance of IRS and acceptance • Strengthen Monitoring & Supervision • Re-orientation training for Spray Supervisor
1. Indoor Residual Spray (IRS)		
2. Bednets	<ul style="list-style-type: none"> • Ignorance for use of bednets 	<ul style="list-style-type: none"> • IEC programme on the benefit of ITBN • Social Mobilisation
3. Management and Treatment of Severe and Complicated Malaria	<ul style="list-style-type: none"> • Delay in Referral • Mobility constraints 	<ul style="list-style-type: none"> • Training of Peripheral Health Staff/ ASHA/ NGOs on diagnosis of sign of severe malaria for referral. • Transportation for severe cases to be well equipped hospitals • Incentive for ASHA/NGOs/ Community Volunteers – (TA/DA) • Training for Doctors and Staff on severe & complicated malaria • POL/Hiring of vehicle for transferring patients from PHC to well equipped Hospital for specialized treatment
Capacity Building	<ul style="list-style-type: none"> • No Post Technical evaluation for MO & Lab-Technician. 	<ul style="list-style-type: none"> • Evaluation at District Level/ PHC Level
Monitoring & Supervision	<ul style="list-style-type: none"> • Inadequate Monitoring & Supervision at all levels. • Poor recording & reporting. 	<ul style="list-style-type: none"> • Intensify activities at all levels • Regular Monthly/ review Meeting of DMOs and Quarterly review meeting with DM & HO • Timely submission of reports • Monthly Meeting at District Level & Block Level of Deputy Commissioners, SDO's Civil, BDO's and Local Health Centres

Some of the new initiatives taken by the Health and Family Welfare department are as follows:

- Training/Re-training of Doctors/Lab-Tech/Health Supervisors/Health Workers/Community Volunteers, etc. in the public, private and voluntary sectors to improve access to diagnosis and improve quality. Rapid Diagnostic Test (RDT) used in remote inaccessible areas where access to laboratory services would not be practically feasible.
- Training of personnel of peripheral health facilities in the public and private sectors for the treatment of malaria.
- Use of artemisinin combination therapy in drug-resistant area.
- Establishment of a community based drug distributor in each village by training village volunteers.
- Promotion of use of mosquito nets through awareness generation and advocacy workshops.
- Treatment of community owned mosquito net by organizing mosquito net treatment camps in collaboration with the private sector and local NGOs.
- Suitable water bodies will be seeded with larvivorous fish. The community, NGOs school children will be actively involved.
- Develop and implement strategy for enhancing awareness about various strategies of malaria control with particular emphasis on treatment of mosquito nets.
- Encourage local NGOs, CBOs, Women SHGs, local self government etc. to participate in malaria control.
- Organized private sector, large industries, etc will be encouraged to have work-place policy guidelines for malaria control including insecticide treatment of community owned mosquito nets among their employees and to ensure access to appropriate treatment.
- The Government of India has sanctioned 12 MTS (malaria technical supervisors) with motorcycles and 10 Laboratory Technicians for the state of Meghalaya.
- Coordination between Assam and Meghalaya Borders. Synchronization of DDT Spray Operation in Border Areas of both the states. Exchange of IRS schedule before starting of spray.
- Exchange reporting of any outbreak of fever/malaria and deaths in border areas.
- Involvement of the District Administration at the District level & SDO (civil), BDO at Block Level for monitoring and Supervision of programme Activities
- District level monthly meeting of the Deputy Commissioner with the DM & HO's, DMOs and at Sub-Divisional level & Block Level monthly meeting of the SDO (Civil) & BDO's with SDM & HO's & MO CHC/PHC to review malaria situation & prompt action for controlling outbreak.

3.9.6. THE REVISED NATIONAL TB CONTROL PROGRAMME (RNTCP) IN MEGHALAYA

Tuberculosis Control Programme in Meghalaya has been implemented under the Director of Health Services (M.I.) through the technical head of State TB Officer since 1978 under the National TB Control Programme (NTCP).

The goal of the National Health Policy, 2002 is to reduce the mortality due to Tuberculosis to 50 percent by 2010 from the status of 2002. The objective of the Government of India is to achieve

this goal by expanding and implementing the RNTCP throughout the country. The diagnosis of cases through sputum examination has been given due and adequate emphasis, and this aspect has been reflected in the ratio of smear positive to smear negative cases in RNTCP, which was 1:1. In the treatment by DOTs strategy, more than 80 percent of patients have been successfully treated. Most notably, death rates among diagnosed TB cases have dropped substantially compared to the earlier programme. The challenge in RNTCP is to improve the case finding from the current rate of 50-60 percent to at least 70 percent.

By the year 2001 Central TB Division (CTD) approved all districts to start service delivery on RNTCP. Directly Observed Treatment Short Course Chemotherapy (DOTS) and the programme was launched in the entire State on October 2nd 2003. The objectives of the Programme are: to achieve and maintain cure rate of 85% among newly detected infectious (New Sputum Smear Positive) cases; to achieve and maintain detection rate of 70% of such cases in the population and to achieve conversion Rate of 90%.

Table 3.26: RNTCP State Infrastructure

District	No. of District TB Centres	No. of DTCs as Counseling Centres	No of TB Units	No. of Designated Microscopy Centres	No. of Sputum Collection Centres	No. of DOTS Centres as Counseling Centres	No. of TB Hospital (Beds)
East Khasi Hills	1	1	3	13	23	224	1(208)
West Khasi Hills	1	1	2	8	12	124	
Jaintia Hills	1	1	1	6	10	110	
South Garo Hills	0	1	1	2	3	44	
East Garo Hills	1	1	1	5	10	76	
West Garo Hills	1	1	2	11	10	196	1(25)
Ri Bhoi	0	1	1	5	7	85	
Total	5	7	11	50	75	859	2 (233)

Source: State TB Officer, Meghalaya, Shillong

State Specific Programmes & Policies on TB Control include the following aspects:-

- Prevent emergence of multi drug Resistance (MDR) Cases by minimizing the number of defaulters and ensuring that all cases are treated with DOTS strategy.
- Ensure that all cases with persistent cough for more than three weeks are sent for sputum examination.
- To expand network of DOTS Providers in rural and inaccessible areas by increasing the number of DOTS Providers, incentive of Rs. 250 for each treatment completed cases to be given.
- Provision of incentive for transport of sputum from difficult areas, peripheral areas to the nearest DMC (Designated Microscopy Centre) @ Rs 100/- per month, four times a month.
- To streamline drug distribution system from state to district and regular monitoring at the periphery by the District.
- Monitor annual case detection and treatment completion rates per PHC/CHC area
- Strengthening Monitoring & Supervision through training of MOTCs (Medical Officer TB Control) at TU level.
- To expand network of DOTS providers in remote areas.

- Encourage community-based volunteers/NGOs for providing DOTS and transport sputum samples to DMCs from villages.
- Ensure all defaulters are followed up by ANMs and ASHAs so that defaulter rates are brought to zero.
- Quality microscopy services through implementation of External Quality Assurance (EQA) Programme in all DMCs.
- Inter-sectoral involvement with the Education Department.

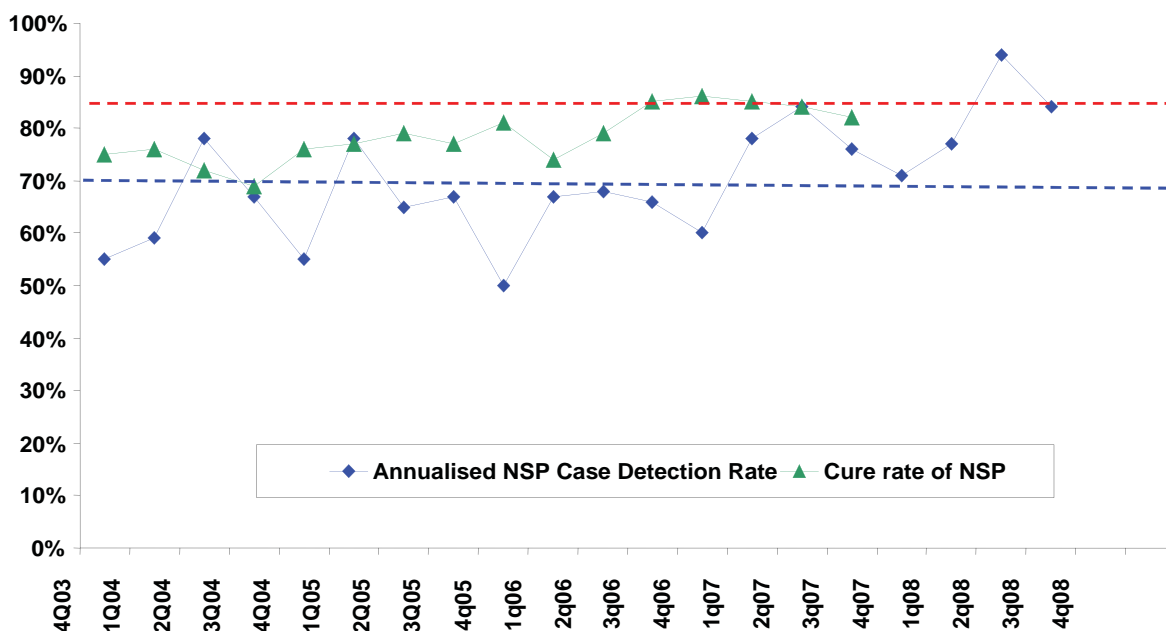
Table 3.27: District Wise Performance on Epidemiology Situation of TB

District	Estimated Population (in lakhs)	Year	Suspect examined per lakh persons	No. of smear positive patients diagnosed	Total patients initiated on treatment	Annualised total case detection	New smear positive patients initiated on treatment	Annualised New smear positive case detection rate	No. of sputum negative cases	No. of EP cases	No. of New smear positive patients Cured
East Khasi Hills	7	2004	3966	580	1739	753	399	173	403	494	274
		2005	3535	661	1717	889	379	195	385	482	234
		2006	3189	674	1760	992	350	197	356	472	105
		2007	1933	416	1109	819	217	238	121	188	*
West Khasi Hills	3	2004	1705	658	521	655	224	229	128	102	194
		2005	2096	245	566	693	181	221	136	104	159
		2006	1536	192	534	677	156	197	132	134	80
		2007	917	117	312	391	99	109	72	90	*
Jaintia Hills	3	2004	959	144	302	379	116	146	88	51	75
		2005	1093	167	396	783	121	148	122	74	101
		2006	939	174	335	422	105	133	79	72	40
		2007	486	19	205	255	78	97	47	34	*
Ri-Bhoi	2	2004	Clubbed with East Khasi Hills as DTCS not yet formed								
		2005	627	113	234	437	82	153	28	30	59
		2006	1170	153	303	586	116	224	49	48	41
		2007	648	89	182	348	69	132	41	27	*
East Garo Hills	3	2004	826	147	251	375	122	181	60	11	73
		2005	978	100	176	257	81	119	38	14	55
		2006	926	91	181	272	71	108	70	20	21
		2007	576	58	110	116	43	51	38	10	*
West Garo Hills	6	2004	2850	535	885	531	395	238	138	33	296
		2005	2923	407	786	477	336	204	241	45	281
		2006	2585	378	546	394	285	206	132	36	164
		2007	2005	311	414	296	234	167	84	37	*
South Garo Hills	1	2004	Clubbed with West Garo Hills as DTCS not yet formed								
		2005	Clubbed with West Garo Hills as DTCS not yet formed								
		2006	302	41	72	324	47	177	9	12	29
		2007	228	23	57	212	29	107	20	3	*

Notes: Figures for 2007 are upto June 2007 only; * Treatment Outcome Results for patients registered during 2007 are not yet available.

Source: State TB Officer, Meghalaya, Shillong

Figure 3.5: Trend Annualized New Smear Positive (NSP) Case Detection Rate and NSP Cure rate from 4Q03 to 3Q08 in Meghalaya



Source: State TB Officer, Meghalaya, Shillong

Table 3.28: NSP Cure and Detection Rates

Indicators	District		TB Unit	
	Case detection > 70%	Case detection < 70%	Case detection > 70%	Case detection < 70%
Cure rate > 85%	West Khasi Hills, Jaintia Hills, West Garo Hills, East Garo Hills, South Garo Hills		Nongpoh, Tura, Phulbari, Baghmara, Williamnagar	Mairang, Jowai
Cure rate < 85%	East Khasi Hills	Ri Bhoi	Shillong, Nongstoin	Sohra, Mawphlang

Source: State TB Officer, Meghalaya, Shillong

The epidemiological data and trends presented in Table 3.28 and Figure 3.1 respectively indicate that the state will have to make sustained efforts to improve services in a more focused and targeted manner.

3.9.7 NATIONAL PROGRAMME FOR CONTROL OF BLINDNESS (NPCB) IN MEGHALAYA

The goal of the National Health Policy, 2002 is to reduce the prevalence of blindness to 0.5 percent by the year 2010. The aim of the Government of India is to achieve this goal through the “National Programme for Control of Blindness (NPCB)”. Upto the end of December 2006, the blindness rate in Meghalaya is 0.74 percent as compared to the national rate of 1.1 percent.

Activities of NPCB in Meghalaya: OPDs, School Eye Screening and Eye Camps are the regular activities of the NCPB, for detection of blindness. The contributing factors to blindness are mainly Cataract, Refractive Errors, Corneal Diseases, Glaucoma, Squint, Injuries, Vitamin A deficiencies, etc. Cataract cases detected in the camps and OPDs are brought to the base Hospital and operated. Refractive Error detected in school children were prescribed with suitable spectacles, and for those who could not afford free spectacles were provided through the societies.

Besides the routine activities, special drives for cataract were conducted by having daily OPDs and Eye Camps.

Table 3.29: Cataract performance during 2002-03 to 2008-2009

Year	Target	Achievement
2002-2003	2000	824
2003-2004	2000	1283
2004-2005	2000	827
2005-2006	2000	1492
2006-2007	2000	747
2007-2008	2000	1064
2008-2009	2000	737

Source: Joint Director Health Services and Advisor Ophthalmology, Meghalaya, Shillong

Table 3.30: School Eye Screening for Refractive Errors, 2002-03 to 2008-09

Year	Teachers trained in Screening	No. of children screened	Children detected with Refractive Errors	Children provided with glasses free of cost
2002-2003	1269	15851	671	203
2003-2004	423	36859	3436	199
2004-2005	638	57836	4276	156
2005-2006	729	48477	4839	452
2006-2007	180	41688	4234	485
2007-2008	325	42199	3366	794
2008-2009 (upto Sept)	597	61054	4978	391

Source: Joint Director Health Services and Advisor Ophthalmology, Meghalaya, Shillong

The District Blindness Control Societies (DBCS) were formed in all the districts of the State, except South Garo Hills, in the year 1993 and funds from the centre were released directly to them. The Meghalaya State Blindness Control Society came into being in 1999 and from this year onwards, the funds to the District Societies were routed through it. With the setting of the Societies poor patients were operated free of cost and were provided free medicines, post-operative spectacles, transportation and various pre-operative tests.

Special drive to intensify prevention of curable and preventable blindness in Meghalaya: During 2005-2006, three phases of one special drive were conducted by the National Programme for Control of Blindness (NPCB) of the Government of Meghalaya through its State District Blindness Control Societies together with an NGO, Bansara Eye Care Centre in collaboration with Rajendra Prasad Centre for Ophthalmic Sciences, All India Institute of Medical Sciences (AIIMS), New Delhi. In all the three phases, a team of Super Specialists from AIIMS along with the leading Eye Specialists of the state provided treatment to the patients free of costs and all the seven Districts of the state were covered. Under the IEC programme, a number of awareness campaigns were organized in the state. These are: 167 in 2004-05, 78 in 2005-06, 92 in 2006-07 and 84 in 2008-09 (upto September, 2008).

3.9.8: INTEGRATED DISEASE SURVEILLANCE PROJECT (IDSP)

One of the goals of National Health Policy, 2002 was that an integrated system of surveillance should be started by the year 2005. For this goal the Government of India launched the IDSP, 2004-2009 in three

phases, starting from year 2004-2005. The IDSP, 2004-2009 is a decentralized Information Technology based Surveillance system which would monitor the incidence of a set of high priority communicable diseases and risk factors associated with non-communicable diseases. The project also provides for a rapid response to any outbreak, should the number of cases exceed pre-defined threshold levels. Through effective surveillance of such conditions, IDSP would provide a strong foundation to the disease control programmes under NRHM. ASHA, being the link between the community and the public health system would be a very important component of the IDSP programme. Following are the classification of Surveillance:

Syndromic- diagnosis made on the basis of clinical pattern by paramedical personnel and members of community

Presumptive- diagnosis made on typical history and clinical examination by Medical Officer

Confirmed- Clinical diagnosis by Medical Officer and/or positive laboratory identification

In Meghalaya, the IDSP started during the second phase (2005-2006). For this, the State Project Implementation Plan (SPIP) was prepared and a Memorandum of Understanding (MoU) was completed on the 23rd March 2006 between the Government of India and the State of Meghalaya.

For implementing the project in Meghalaya, training of Medical Officers and Health Workers has already been completed in almost all districts of the State. The laboratory technician training is completed at the State Level and the Laboratory Assistant training (peripheral level) has already started in almost all the districts in a phased manner.

The state has grappled with the cholera, meningococcal meningitis, and scrub Typhus threats. The surveillance and data has brought analytical and rapid response mechanism in case of epidemic and disease monitoring.

Table 3.31: Training Status for Integrated Disease Surveillance Project

District	Medical Officers	Health Workers	Lab Assistants	Lab Technicians	TOT for State/District Level Medical Officers
South Garo Hills	10	40	8	-	-
West Garo Hills	16	94	20	-	-
East Khasi Hills	32	97	21	-	-
West Khasi Hills	19	63	12	-	-
Ri Bhoi	12	54	12	-	-
Jaintia Hills	18	100	17	-	-
East Garo Hills	16	67	12	-	-
Total Trained	123	515	102	17	38
Total Training Load	138	546	119	17	33

Note: TOT – Training of Trainers

Source: IDSP Wing, Directorate of Health Services (MI) Meghalaya, Shillong

3.9.9 NATIONAL RURAL HEALTH MISSION (NRHM), MEGHALAYA

Under the NRHM, the state government has embarked upon a number of ambitious projects with an aim to improve access, availability and outreach of services. There has been some perceptible change taking place in this respect.

3.9.9 (a) ASHAs and VHSCs

With the addition of approximately 6180 ASHAs for every village and additional 401 ANMs in all the Sub Health Centres projected so far within the target period of 2012, there will be significant change in the quality of most peripheral health interface between the community and the health functionary of the government. As a step towards community participation and engagements, the VHSCs (Village Health and Sanitation Committees) with the village headman and other members of the village being brought into the helm of the affairs where health and related critical issues were being discussed and dealt with. The expected results of complete universal immunization, safe motherhood by providing ANCs and PNCs, control of malnutrition and anaemia, sanitation and water supply, etc are being directly tackled as a part of important health determinants that contribute the hallmark of overall well being.

3.9.9 (b) Sub Health Centres (SCs)

401 SCs throughout the state, with already more than 25 percent of them with additional ANMs and construction of ANM quarters and further improvement of physical infrastructure, ensuring availability of minimum medicines, contraceptives, the objective of primary health care for the mother and child, vulnerable poor rural women and others is becoming a reality. As per the population norms of 1 SC for every 3000 rural population, the state requires 817 SCs instead of the present 401 and as such, the infrastructure gap remains to be augmented.

The state PIP (Project Implementation Plan) for the year 2008-09 pursue construction of 43 SCs with ANM quarters and in addition another 30 has been earmarked after re-appropriation for construction, selected; based on suitable geographical distribution in an equitable demographic distribution pattern.

3.9.9 (c) Primary Health Centres (PHCs)

104 PHCs are already existing as the first contact point for the community with the medical officer for comprehensive preventive cum promotive health, with a great deal of curative treatment component by virtue of minimum facilities of labour room, OT, laboratory, etc with indoor wards are the steps, the state appropriately contemplates to implement during the mission period of 7 years. *There has been one important milestone by creation of Rogi Kalyan Samiti (RKS) for community participation and ownership of the health care institution.* The samiti begins to plan and manage the functions of the establishment, with the active support in terms of a number flexible financing segment of untied funds, maintenance allowance, RKS grants. The responsibility and accountability has also been entrusted to the members of the samiti.

During the current year (2008-09), 5 new PHCs will be commissioned with the financial contribution from the state and under NRHM budgetary support.

All PHCs will be upgraded to IPHS, already 24 of them has been targeted for 24x7 service facility, which will further be expanded to cover all the PHCs in the state. Construction for 11 doctors and GNM quarters shall also be taken up this year. Ensuring regular supply and availability of medicines and consumables having been almost achieved so far through a range of steps undertaken by the government during the last 2 years.

3.9.9 (d) Community Health Centres (CHCs)

There are 28 CHCs in the state, with several limitations and constraints to be fully made operational as FRUs. Nevertheless, the government seriously contemplates so. Ideally, all the 39 developmental Blocks should have one CHC, but, in Meghalaya, there is the numerical discrepancy and geographical distribution discrepancy, from the fact that certain blocks have no CHCs and certain blocks have 2 CHCs. Again, as per the norms, the number of CHCs should be 31 instead of the existing 28 CHCs.

There are 9 - 10 CHCs targeted for operationalization as FRUs during the present PIP, specialist manpower advertisements floated in the newspapers, received response from interested candidates, 1 surgeon appointment order issued for Nongpoh, other specialists will be posted at Williamnagar, Mairang, Khliehriat, Pynursla, Sohra, Ampati, Baghmara, Mawkyrwat, Nongstoin which are in the list for operationalization.

Already GNM quarters construction has been underway, additional manpower earmarked, are few steps proposed. Serious efforts are underway for upgradation of the existing infrastructure of OT, Labour rooms, wards, water supply, uninterrupted power, etc. All the CHCs have been brought under the managements of RKS constituted for the purpose.

3.9.9 (e) District Hospital

Tura and Jowai Civil hospitals have been upgraded with one time grant of Rs 1 crore during 2007-08 and another Rs. 50 lakhs earmarked and released for steps to be taken up. GD Hospital in Shillong has also been upgraded with similar financial support from NRHM.

3.9.9 (f) Health Reporting System

The sub-centres function as subsidiary to the PHC and the health activities and other necessary information and data should be forwarded as a matter of routine to the PHC. Thereafter, from the PHCs to the CHCs and then to sub-divisional Hospitals and finally to the District Hospitals. But, due to certain reasons, this ideal situation does not exist in all the Districts, because, as stated in the above paragraphs that, there are certain blocks which does not have a CHC, therefore, the PHC serve as the Apex Health Institution within the block. Some sub-centres do directly report to the CHCs and vice-versa, certain PHCs directly report to the District Hospitals, which is indeed not the appropriate process of health functioning reporting system.

3.9.9 (g) Blood Banking & Storage Facility Service

The state government has been already having the regional blood bank at Pasteur Institute and all the district HQs will be covered either directly by establishment of Blood banks or storage facilities. Tura Civil hospital has an operational Blood Bank, while Jowai will first begin with storage facility, although already sanctioned. Nongpoh, Williamnagar, Mairang, etc shall be subsequent in the list. These will be an integral part of the FRUs.

3.9.9 (h) Trauma Centres

Under the NEC assisted programme, a reasonably well equipped accident and trauma centre at Shillong Civil hospital has been functioning with facilities of the upgraded Orthopaedics department. One such centre each at Nongpoh, Jowai and Tura are well in advanced stage for operation. These facilities will be supplementary and complementary to the 24x7 service programme being gradually planned in the state.

3.9.9 (i) Drug Procurement, Storage & Distribution

The process of centralized bulk procurement policy recently adopted, if operationalised properly and carefully, may ensure regular and timely supply of drugs and medicines at the districts, hospitals and other health establishments. There is already a central drug warehouse in operation at MIMHANS campus under the DHS (MI). Another warehouse located at Banalari complex for NRHM is now fully operational with staff and facilities. Distribution has also been innovated by hiring trucks or vehicles for transportation at time of urgent need. The government has a number of plans for further improvement and refinement in the matter.

3.9.9 (j) Construction of Warehouse

Construction of one central warehouse under NRHM at Shillong in the old NEIGRIHMS complex has been sanctioned and being taken up. Another 3 warehouses will be constructed at Baghmara, Williamnagar and Nongstoin.

3.9.9 (k) Mobile Medical Units

MMUs recently launched by the Honourable Chief Minister for the outreached medical activities, especially for those underserved and difficult areas, to provide preventive and curative treatment to the community at large.

3.9.9 (l) NRHM Initiatives:

Launched in April 2005, to provide universal access to equitable, affordable and quality health care to the poor and vulnerable sections of the community.

- State Health Mission and Society, District Health Societies have been constituted;
- MoU with State Health Society (SHS) and Gol has been signed, programme management units (SPMU, DPMU, BPMU) have been put in place;
- Different disease control programmes, IDSP, NPCB, RNTCP, NVBDCP, NLEP, UIP, NIDDCP (National Iodine Deficiency Disorder Control Programme) have been merged under the State Health Society.
- Initiatives to integrate AIDS control and Cancer prevention under the SHS is under process.

Expected outcome of the NRHM are:

- IMR to be brought down to 30 per 1000 live births from current rate of 56 (SRS October 2008).
- MMR to be brought down to 100 maternal deaths per 1,00,000 deliveries from current 450.
- TFR to be brought down to 2.1 from current rate of 3.8 (NFHS-3, 2005-06).
- Achieve universal immunization.
- Malaria mortality rate reduced to 60 % by 2012.
- Number of Cataract Operations to increase to 46 lakh.
- Leprosy prevalence rate to be reduced to less than 1/10,000.
- TB DOTS services and cure rate to increase to 85%.
- Upgrade CHCs to IPHS (Indian Public Health Standards).
- Increase FRU facilities.
- Engage ASHA for all villages.

Major components of the NRHM are:

- Constitution of VHSC, untied funds.
- Strengthening of SC, untied funds.
- RKS for PHC, CHC, DH.
- Maintenance grant for SC, PHCs, CHCs and DHs and untied funds.

- Improve hospital referral service, ambulances for the PHCs.
- Improve health coverage through MMUs for underserved and unserved areas.
- Encourage Institutional delivery through maternal benefits schemes like Janani Suraksha Yojana (JSY), referral transport facilities.
- Ensure 24x7 services for PHCs, CHCs.
- Establishment of FRUs with facilities for 24x7 blood storage facilities.
- Provide Anaesthetist, Gynaecologist, Paediatrician, Surgeon for all FRUs.
- Ensure essential medicines in CHCs, PHCs, DHs.
- Display citizens charter, minimum service guarantee to all the health establishments.
- Facilities and service quality survey by independent agencies
- Mainstreaming of AYUSH, manpower strengthening by posting 2 doctor PHCs, supplement with 1 AYUSH doctor, 2 ANMs in SC.
- Stringent monitoring, supervision and evaluation including community social audit.
- *Accountability, Transparency and Monitoring* in all its plans and programmes.
- Community participation and ownership for health planning and management.
- Professionalise health service delivery.
- Convergence of activities: Interdepartmental convergence for nutrition with AWW through ICDS programme; For improvement of water supply PHE to be actively coordinated with; For sanitation and improvement of Hygiene, the Deptt of PHE and C&RD; Education, Employment, PWD and MeSEB are the areas which health sector needs to actively engage with for meaningful implementation efforts.

Some of the recent policy initiatives taken up are listed as follows:

- *PPP for PHCs and CHCs*: under the programme, the government will involve voluntary organizations and agencies to manage about 25 selected most difficult PHCs and CHCs under the PPP model, where the state shall bear the infrastructure maintenance and supply of drugs and consumables, whereas the private agency shall run and manage the health establishment, under strict supervision, through a MoU. The process is in the advanced stage of decision making.
- *PPP for establishment of medical college and College of Allied health professionals*: another innovative scheme to meet the long cherished desire of the state to have its own medical college shall be materialized through the process, already EOI has been floated, prospective experienced and committed parties has been identified and is in its final stage of decision making.
- *EMRI*: Emergency management and research Institute for establishment of a comprehensive emergency medical response service throughout the state, which has been already implemented in 11 states, will be implemented through a model of PPP, where the organization shall charge the cost in actual terms, with partial contribution on their part.
- *Community health Insurance*: through another model of PPP to cover basically the BPL families,

to be provided by the public sector insurance providers, with selection and control from a state level insurance administrator or some similar model has also been contemplated by the government, already EOI has been floated through newspaper, response received are under examination.

- *IEC (Information Education and Communication) / BCC (Behavioural Change Communication):* outsourcing as a mechanism for developing appropriate tools for target population for health care awareness and sensitization especially on the subject of population stabilization and gender balance and overall well being of the community has been in the process, Expression of Interest has already floated, reputed and experienced parties responded and are in the process of examination.
- *Health management Information system (HMIS):* through the National Health system Resource Centre (NHSRC) or through private agencies to computerize the entire health information system in order to improve the whole health delivery system in terms of supply and distribution chain management, procurement procedure streamline, collection of data and analysis for proper use in planning, etc has been contemplated.

3.9.9 (m) Human Resource Management & Planning

- The state may have to overcome shortage of doctors by ensuring commencement of PG courses at NEIGRIHMS, Shillong and by the establishment of medical colleges (through PPP model, if necessary).
- There are 87 specialist doctors at present; additional 200 specialist doctors to provide 24x7 services in FRUs and hospitals are required. Sustained and innovative efforts are required to meet this huge shortage.
- More than 1000 nursing personnel have been posted in all the health establishments, including recently recruited contractual ANM and GNM under NRHM. However, the shortfall shall remain as high as 500. Further, subordinate and paramedical staff comprising technicians, skilled helpers and a wide range of support staff is also in acute shortage. Planning to meet the shortfall through and combined range of activities are necessary.
- Health system management has been streamlined with the induction of the programme management units in the state level (SPMU), districts (7 DPMUs), blocks (39 BPMUs) and down to the PHC (104 Block accountants) level. Besides, IEC/BCC consultant, social sciences, monitoring and evaluation officers, administrative staff, etc have been engaged. This may perhaps improve the performance and flow of data and information for proper analysis and management.
- The level of co-ordination and collaboration requires strengthening; Training and capacity building also requires to be stressed upon.
- Recognition of collaborative training courses by the competent authorities is essential. This short-course training is urgently needed for Meghalaya to enable to fill-up the vacancies in the above specialties in all the CHCs in the state. In addition, it will also help for the upcoming district hospitals at the remaining four districts of Meghalaya at Nongpoh, Nongstoin, Williamnagar and Baghmara.

3.9.9 (n) State Health Sector Reforms and Restructuring:

Beside the reforms under NRHM being contemplated, some of the suggested areas of reforms are listed below:

- Reorganization of the Directorates: The present system of 3 (three) Directorates requires to be

reviewed and be made more functional specific. All functional directorates should be brought under one umbrella for seamless functioning as contemplated under the NRHM.

- Introduction of hospital administrators and professionals: introduction of hospital administrators with management graduates in hospital management or MBBS doctors with MHA degree, etc. The District Hospitals, providing specialty service deserves to be more integrated under the umbrella of State Health Society and the DHS (MI)
- Directorate Of Public Health: the administration of the preventive and primary health care may be brought under this directorate, accordingly, doctors with public health background or MD in community medicine, as additional requirement shall create a more effective organization to enable the changing demands of the comprehensive public health programme. At the district level, similarly, all functionaries should possess the requisite community medicine qualification or else creation of a public health officer to strengthen the activities of the DM & HOs. Further, Health regulations to be sharpened and given focused attention: the controller of drugs, Drugs and food inspection and regulation of nursing homes etc is needed for a well geared and responsive private health sector, besides ensuring quality of inputs and outputs.

3.10 Conclusion

This chapter highlights the existing available facilities and manpower in the area of health care services and provides some of the important indicators of health in Meghalaya. The state has acute shortage of specialized manpower and proper basic health care facilities especially in the rural areas. There are concerns about the quality of service being provided to the people.

The key indicators of the status of health of the people of Meghalaya are worrisome, to say the least. Much more needs to be done to improve the health care services and health of the people of Meghalaya. Of course there should be the will, effort and sincerity from the health service providers at all levels. The spirit of work culture and service for others should be there. The theme “Human Resource for Health” had been correctly chosen by WHO for the World Health Day, 2006 and this should not end only with the end of the year 2006. From the management levels we have to give due importance to human resource management, and act mainly on the following areas:

- 1) Responsibility with Honesty and Sincerity;
- 2) Accountability Demand;
- 3) Monitoring;
- 4) Supervision, which should be guiding, supportive and constructive;
- 5) Continuing Education and up-dating Knowledge/capacity Building;
- 6) Correct utilization of quality manpower.

The health system in India is at cross roads, dramatically changed from what it was few decades ago. Economic gains has opened additional employment and incomes, with reduced poverty levels, changed lifestyles, increased urbanization and connectivity and enhanced access to information. Thus it brings new challenges and opens up new frontiers of health care requirements and responses. These factors have profoundly impacted the health seeking behavior pattern of the people, the inadequacies both in public and private domain are increasingly becoming evident. Therefore the responsibility of the government to provide an efficient and purposeful health system both for preventive and curative services has considerably increased, demanding substantial strengthening of the current public health system, which is indeed remains a huge challenge for the state.