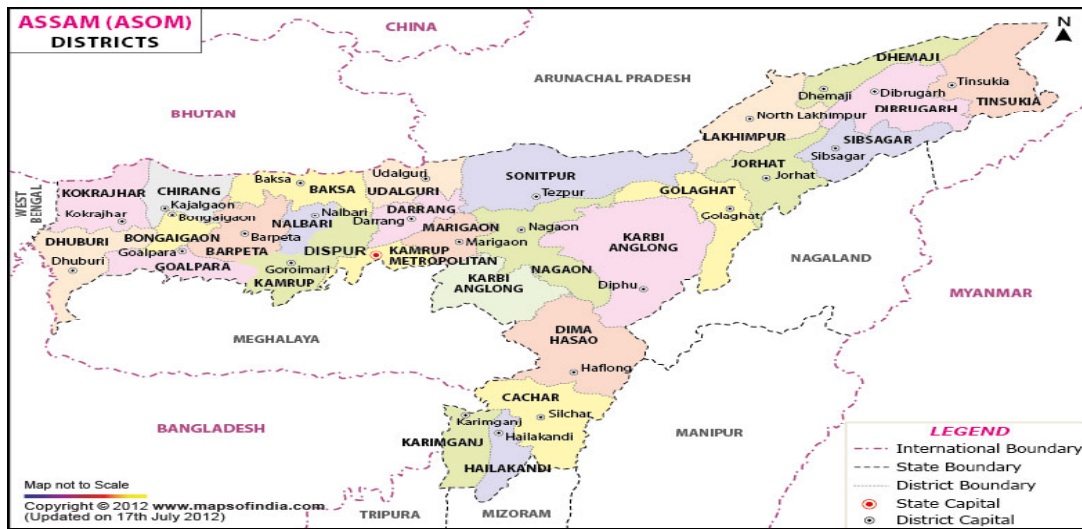


## **PROFILE OF THE STUDY AREA**

Assam is one of the North-Eastern states of India. Its capital is Dispur, situated at Guwahati. Guwahati is also known as the North-Eastern corridor of India. Assam comprises the Brahmaputra and the Barak valleys along with the Karbi Anglong and the North Cachar Hills with an area of 30,285 Sq. Miles. Assam is known as one of the seven sister states of North-East and is surrounded by the rest six states: Arunachal Pradesh, Nagaland, Manipur, Mizoram, Tripura, and Meghalaya.

The Assam state has low infrastructure, geographical and topographical conditions, inadequate communication facilities etc. and always exists far behind from the rest parts of the country. The state had experienced the perennial problem of floods and large bouts of immigration for a long period. Inadequate irrigation facilities, floods, and traditional agricultural practices are identified as the major causes of low production and productivity in agriculture in the state. (Planning and Development Department, Govt. of Assam: Draft Tenth Five Year Plan and Annual Plan: 2002-2003).

**Map 3.1: Map of Assam**



Source: [www.mapsofindia.com](http://www.mapsofindia.com)

Health is an indicator of well-being that has immediate implications for the quality of life as well as for productive capacities and capabilities. Assam has been moving towards the attainment of the goal of ‘health for all’. The State Government has emphasized not only on the adequate provision of primary health care, but also on the education and awareness of health issues, dissemination of information on prevention, hygiene and healthy practices, food security and nutrition, safe drinking water and good sanitation, maternal and child health and family welfare. An assessment of the health status is possible from key indicators such as infant mortality, crude birth rate, crude death rate, life expectancy and nutritional status.

Infant Mortality Rate in Assam is 64 , Crude Birth Rate is 23.9, Crude Death Rate in Assam is 8.6, and life expectancy at birth is 61.9 (Sample registration System, 2008).

Some Important features of population of Assam are shown in the table below:

**Table 3.4: Population Features at a Glance, Assam**

Particulars	Unit	2001Census, Assam	2011Census, Assam
Population	Lakhs	267	311
Decadal Growth	Percentage	18.92	16.93
Change in %age of Decadal Growth	Per Sq.Km	(-)5.32	-
Density	Female per 1000 males	340	397
Sex- Ratio	Percentage	935	954
Literacy	Percentage	63.25	73.18
a)Male	Percentage	71.28	78.81
b)Female	Percentage	54.61	67.27
Urban population	Percentage	12.90	14.08
a)Male	Percentage	53.41	51.61
b)Female	Percentage	46.58	48.39

Rural population	Percentage	87.10	85.92
a)Male	Percentage	51.43	51.12
b)Female	Percentage	48.57	48.88
SC population	Percentage	7.40	NA
ST population	Percentage	12.83	NA

*Source: Census of India 2011*

### **History of Cachar:**

The last of the Kachari Kings, Raja Gobind Chandra was assassinated by a group of seditious persons with the help of some of his personal attendants on April, 24, 1830 at Haritikar. In absence of natural heirs, his territory lapsed to the British under the terms of an agreement executed in 1826. Mr. T. Fisher, as army officer was sent to take charge of the territory with the power of a collector and magistrate and he took over charge on June 30, 1830 with Headquarters at Cherrapunji. In 1833, the Headquarters were shifted to Dudpatil and then to Silchar. Plain portion of Cachar was formally annexed to the British dominion on August 14, 1832 by a proclamation of the Governor General in council. Mr. T. Fisher was gazetted to the first Post of the Superintendent of the District. He unfortunately died while in service and was succeeded respectively by Messers I. G. Burns, E. R. Lyons, E. S. Person, P. G. Vener and others.

In 1854 North Cachar was annexed to the British Dominion after the death of Senapati Tularam and tagged with Cachar. In 1874, Cachar was included in the Chief Commissionership of Assam as per proclamation of Feb'6, 1874 and the post of Superintendent was redesignated as the Deputy Commissioner and Mr. R. Stuart was the first DC of the District. Hailakandi Sub-Division was formed on June 1, 1869. As a result of partition of India in 1947, four Thanas of East While, Karimganj Sub Division of Sylhet District were transferred to Cachar.

**Map 3.2: Map of Cachar**



Source: [www.mapsofindia.com](http://www.mapsofindia.com)

The District of Cachar is located in the Southernmost part of Assam is one of the oldest district of Assam. It is bounded on the North by Barali and Jayantia hill ranges, on the South by the State Mizoram, on the East by sister district Hailakandi and Karimganj. The district was created in 1830 after

annexation of Kachari Kingdom by British. In 1854, North Cachar was annexed and tagged to the district. In 1951 erstwhile North Cachar Sub-Division was made a separate district and taken out of Cachar. In 1983 erstwhile Karimganj Sub-Division and in 1989, Hailakandi Sub-Division was made a separate District.

The district lies between 92° 24' E and 93° 15' E longitude and 24° 22' N and 25° 8' N latitude. The total geographical area of the district is 3,786 Sq. Km. The [Barak](#) is the main river of the district and apart from that there are numerous small rivers which flow from Dima Hasao district, Manipur or Mizoram. The district is mostly made up of plains, but there are a number of hills spread across the district. [Cachar](#) receives an average annual rainfall of more than 3,000 mm. The climate is Tropical wet with hot and wet summers and cool winters.

## **Population**

As per the Census 2001 data, 86.06 percent of the total populations in the district live in rural areas. With a total of 273694 households, the district comprises 234326 rural households and 39368 urban households. The population density in the district is 382 persons per sq.km which is higher than the state average of 340 persons per sq. km as per the census 2001 estimates. The SCs comprise 14.41 percent and proportion of ST population

in the district is 1.29 percent. The demographic profile of the district shows that 41.39 percent of the total rural population in the district belongs to the minority community of which Muslims comprise 97.77 percent. Religious break-up of the population are, Hindus 886,761, Muslims 522,051 (36.13%) and Christians 31,306.

Bengali is the status of Official Language in this district with majority of the people primarily speaking Bengali and Sylheti, a Bengali-dialect. Apart from Bengali, other minority languages spoken in the district include Meitei Manipuri, Bishnupuriya Manipuri, Bojpuri, Dimasa and Rongmei-Naga etc. There are also few Mizo, Kuki, and Khasi people who form microscopic minority.

**Table 3.5: Total Population of Cachar District (2001)**

<b>Residence</b>	<b>Persons</b>	<b>Hindus</b>	<b>Muslims</b>	<b>Christians</b>
Rural	1243534	728822	482685	29194
Urban	201387	157939	39366	2112
Total	1444921	886761	522051	31306

*Source: Census of India 2001*

According to the 2011 census Cachar district has a population of 1,736,319, roughly equal to the nation of ‘The Gambia’ or the US state of Nebraska. This gives it a ranking of 278<sup>th</sup> in India out of a total of 640. The

district has a population density of 459 inhabitants per square kilometer (1,190 /sq mi). Its population growth rate over the decade 2001-2011 was 20.17 %. Cachar has a sex ratio of 958 females for every 1000 males, and a literacy rate of 80.36 %.

### **Economy**

The district headquarter, Silchar, is one of the most important business centers of Assam. In 2006, the Indian government named Cachar one of the country's 250 most backward districts out of a total of 640. It is one of the eleven districts in Assam currently receiving funds from the Backwards Regions Grant Fund Programme (BRGF). There are seven Assembly constituencies in this district, viz. Silchar, Sonai, Dholai, Udharbond, Lakhipur, Barkhola, and Katigorah. Dholai is designated for scheduled castes. The seven constituencies make up the Silchar Lok Sabha constituency.

### **Transport**

Silchar is one of the six cities of Assam to have an airport. The district is served by regular flights from Alliance Air, a subsidiary of Air India, Jet Airways, and North East Shuttles. The district is also connected by



meter gauge railroads to Luming in Assam and by road to the rest of the country.

### **Administration**

The current state capital of Assam, Guwahati, known in ancient time as Pragjyotishpura or The Eastern City of Light, was the capital of Kamrup which finds frequent mention in the Great Hindu Epic Mahabharata and other Sanskrit volumes and historical lores. Its major towns are Guwahati, Dhubri, Barpeta, Dibrugarh, Tinsukia, Jorhat, Nagaon, Sivasagar, Silchar, and Tezpur. Under the unicameral legislature system, it has 126 seats of legislative assembly. The state is represented in the Lok Sabha by fourteen members and seven members in the Rajya Sabha.

### **Literacy Rate**

The literacy rate in the district as per the Census, 2001 is higher than the state average. The female literacy rate in the urban areas of the district is marginally higher than that of the state average, but in rural areas of the district the female literacy rate is much higher than the state average. The literacy rate in the rural areas of the district is better than the state averages.

## **Climate**

The district is mostly made up of plains, but there are a number of hills spread across the district. Cachar receives an average annual rainfall of more than 3,000 mm. The climate is Tropical wet with hot and wet summers and cool winters. The climatic condition of this district is significant for humidity and it is extremely beyond the limit. And because of this reason, during summer, it is intolerable. During the winter season, it is as cold as other parts of north India and the rainy season of this district starts from May and ends after October.

## **Health Care Services in Cachar**

Cachar districts is having seven registered health care centers namely, M/S Mediland Hospital & Research Centers, M/S Green View Nursing Home, M/S Sudipta Nursing Home, M/S Kay Cee Nursing Home, M/S Nightingale Hospital, M/S Valley Hospital & Research Center, M/S Silchar Eye Clinic and there is only one registered diagnostic center.

In this district, the process of assessing the health care requirements and gaps in infrastructure as well as man-power as per National Rural Health Mission is yet to be completed in the district, Cachar has one Civil Hospital, one medical college and one cancer specialist hospital, 32 health centers and 272 subsidiary health centers against the requirement of 12 Civil

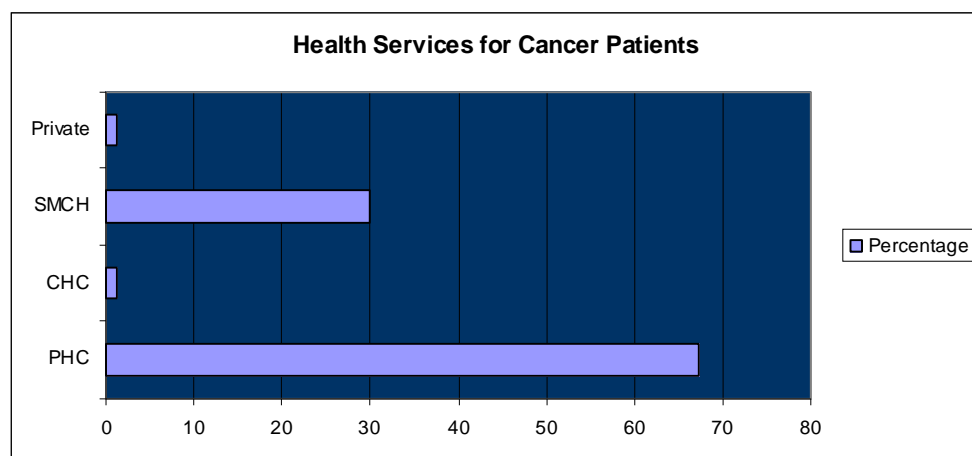
Hospitals, 48 PHC and 289 subsidiary health centers. The basic health care services required to be provided in the health care centers. Doctors were not available at many of the centers visited by the NRHM team. Moreover, due to non-availability of skilled man- power and infrastructure, the purpose of setting up of health care centers was not achieved in the district.

In this district there is absence of proper planning to identify the gaps in the health care centers and there are no special health care services for cancer patients except SMCH and CCH.

Health Services are very much essential for maintaining a good health, physical fitness is very important to carry out the daily work and for a prolonged life of respondent. Say, a sick farmer is unable for cultivation or farming and for which his family income will be hampered. The sick persons have to spend much money for treatment. Therefore, sickness is not only biological but also socio-economic problem of the respondents and their family members. The awareness about health matters is a good indicator for the development of health. So, health services are very much needed for maintaining a good health. Health services in India are rendered by both private and government institutions. The health services are extended by the primary health centers (PHC). The PHCs are responsible for maintaining good health of the rural population and reporting to the

government about the status of every disease. The PHC's are part of universal accessibility of medical services to rural lives in this District. Most of the essential drugs and medical services in the PHC's are either free of cost or sold with extremely subsidized rates. The above table shows that PHCs are in maximum use where 67.3% of the respondents initially go for treatment at PHCs and majority of respondents belong to rural areas and 1.3% of cancer patients use CHCs, 30% of respondents use to visit SMCH, and 1.3% of the respondents use to go to private hospitals or nursing homes for their treatment. Health services are there to provide health care to the community people to live a better life, but in rural areas the health services or care about cancer is not satisfactory and for that they have to go a long way for treatment, which some time becomes a severe problem for the respondents.

**Chart 3.1: Health Services**



*Source: Primary Data*

Data from National Cancer Registry Programme indicate that the leading sites of cancer are oral cavity, lungs, esophagus, and stomach amongst men and cervix, breast and oral cavity amongst women in India. Tobacco is the most important identified cause of cancer and is responsible for about 40 to 50% of cancers in men and about 20% of cancers in women. India has the added burden of tobacco chewing which is more prevalent than smoking in many areas.

India is one of the few developing countries that have a National Cancer Control Programme. It was launched in 1976 with the objectives of primary prevention of cancers, early detection, and prompt treatment. The Ministry of Health decided to revise the programme because the activities were more focused on district plans rather on an overall national effort and the results were not what were expected. The difficulty was that the patients were coming in advanced stages and treatment was not uniformly available. In view of the magnitude of the problem and the requirement to bridge the geographical gaps in the availability of cancer treatment facilities in the country; the programme was revised in December 2004. The problems encountered in the planning process included inconsistent and inadequate involvement of stakeholders, slow and long process of approval of plan. The current existing programme has five schemes:

1. Recognition of new Regional Cancer Centres (RCCs): To enhance the cancer treatment facilities across the country and reduce the geographical gap in the country in the availability of cancer care facilities, New Regional Cancer centers are being recognized. A one-time grant of Rs. 5.00 crores is being provided for New RCC's.
2. Strengthening of existing RCCs: A one-time grant of Rs.3.00 crores is provided to the existing Regional Cancer Centres to further strengthen the cancer care services.
3. Development of oncology wings in medical colleges: Government Hospitals and Government Medical Colleges are provided with a grant of Rs. 3.00 crores for the development of Oncology Wing.
4. District Cancer Control Programme: The DCCP will be implemented by a nodal agency, which may be a Regional Cancer Centre or Government Medical College or Government Hospital with radiotherapy facility. A cluster of 2-3 districts are taken up for prevention, early detection, minimal treatment and provision of supportive cancer care at district levels. A grant-in-aid of Rs. 90.00 lakhs spread over a period of 5 years is provided per DCCP proposal.
5. Decentralized NGO Scheme: A grant of Rs. 8000/- per camp will be provided to the NGOs for IEC activities. The funds are released

through a Nodal agency which could be a Regional Cancer Centre or Government Medical College or Government hospital with radiotherapy facilities. (<http://mohfw.nic.in/healthprogmain.html>)

Cancer is a very important public health problem with 8 to 9 lakhs cases occurring every year. At any point of time, it is estimated that there are nearly 25 lakhs cases occurred in the country. Every year about 4 lakhs deaths occur due to cancer and around 40% of the cancer cases occur due to tobacco use in the country.

Data from Population Based Cancer Registries under the National Cancer Registry Programme indicate that the leading sites of cancer among men are oral cavity, lungs, esophagus, and stomach and among women are uterine cervix, breast, and oral cavity. Cancers namely those of oral and lungs in males and cervix and breast in females account for over 50% of all cancer deaths in India.

#### **National Cancer Registry Programme (NCRP):**

For data base of cancer cases, National Cancer Registry Programme (NCRP) was initiated in 1982 by Indian Council of Medical Research, which gives a clear picture of the magnitude and patterns of cancer. There are two types of registries; Population Based Cancer Registry and Hospital Based Cancer Registry, which were started in January 1982. The Population

Based Cancer Registries take the sample population in a geographically defined area while the Hospital Based Cancer Registries take the data from patients coming to a particular health institution. At present we have 21 Population Based Cancer Registries and 6 Hospital Based Cancer Registries all over the country. In 2001, data from all cancer registries and all medical colleges were collected for the “Development of an Atlas of Cancer in India” ([www.canceratlas.india.org](http://www.canceratlas.india.org)) to have an idea of patterns of cancers in several other parts of the country, including those not covered under the NCRP.

**Goals & Objectives of NCRP:**

1. To generate reliable data on the magnitude and patterns of cancer.
2. To undertake epidemiological studies based on results of registry data.
3. To help in designing, planning, monitoring and evaluation of cancer control activities under the National Cancer Control Programme (NCCP) and
4. To develop training programmes in cancer registration and epidemiology.



### **National Cancer Control Programme (NCCP):**

In India, it is estimated that there are 2 to 2.5 million cancer patients at any given point of time with about 0.7 million new cases coming every year and nearly half die every year. Two-third of the new cancers is presented in advance and incurable stage at the time of diagnosis. More than 60% of these affected patients are in the prime of their life between the ages of 35 and 65 years. With increasing life expectancy and changing life styles concomitant with development, the number of cancer cases will be almost three times the current number. It has long been realized that cancers of the head and neck in both sexes and of the uterine cervix in women are the most common malignancies seen in the country. The age adjusted incidence rate per 100,000 for all types in India in urban areas range from 106 -130 for men and 100 -140 for women but still lower than USA, UK and Japan rates. 50% of all male cancers are tobacco related and 25% in female (total 34% of all cancers are tobacco related). There are predictions of incidence of 7 fold increase in tobacco related cancer morbidity in between 1995-2025. To control this problem the Govt. of India has launched a National Cancer Control Programme in 1975 and revised its strategies in 1984-85 stressing on primary prevention and early detection of cancer. ([www.nihfw.org](http://www.nihfw.org))

### **Goals & Objectives of NCCP:**

1. Primary prevention of cancers by health education especially regarding hazards of tobacco consumption and necessity of genital hygiene for prevention of cervical cancer.
2. Secondary prevention i.e. early detection and diagnosis of cancers, for example, cancer of cervix, breast and of the oro-pharyngeal cancer by screening methods and patients' education on self examination methods.
3. Strengthening of existing cancer treatment facilities, which are woefully inadequate.
4. Palliative care in terminal stage of the cancer.

### **New Initiatives:**

There are some activities, which are carried out under the National cancer control programme out of the WHO funding under the biennium pattern. In WHO biennium 1998-1999, 16 workshop/training programmes were organized throughout India. The Pap Smear Kits and Can Scan software were supplied to 12 Regional Cancer Centers.

Morphine tablets were also supplied to them. In the WHO biennium 2000-2001 following activities were carried out: -

1. Outreach activities by medical colleges for increasing awareness and early detection of cancer.
2. Training of personnel in early detection and awareness of cancer.
3. Supply of Morphine.
4. Telemedicine and supply of computer hardware and software.
5. IEC activities.
6. Modified District Cancer Control Programme.
7. National Cancer Awareness Day.
8. Training of cytopathologists and cytotechnicians in the quality assurance in Pap smear technology.
9. Participation in Health Melas and distribution of health education material.
10. Postage stamp depicting 'Breast Self Examination' was brought out by Department of Posts on National Cancer Awareness Day.
11. Telecast of a health magazine 'Kalyani' in the current year with cancer and anti tobacco items under the agreement with Prasar Bharti & MOHFW.
12. Broadcast of health education audio material developed by CNCI, Kolkata, through FM Radio.

In current biennium 2002-03, the activities are continuing in the similar way. A screening OPD for cancer at Vardhman Mahavir Medical College & Safdarjung Hospital is being planned with WHO assistance.

**Conclusion:**

Cachar is the sixth largest District in Assam and 324<sup>th</sup> largest in India in terms of total area. Apart, from above Cachar District is low with infrastructure, geographical and topographical condition, inadequate communication facilities etc. always leave it far behind the rest of the country.

The study reveals that economy, education, and culture of people in Cachar District determine their health. Poor economic condition, poor educational attainment, and deep rooted nonscientific belief along with poor implementation of Government health services which causes health hazard or problems. Climatic condition is another major factor for poor health.