POPULATION BASED CANCER REGISTRY, PASIGHAT
General Hospital, Pasighat

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Arunachal Pradesh

Arunachal Pradesh is located in the far northeast of India with 83,743 sq. kms in area. It borders the states of Assam and Nagaland to the south and shares international borders with Myanmar in the east (440 km), Bhutan in the west (160 km) and the People's Republic of China in the north (1,080 km). It is situated between latitude 26°30' N and 29°30' N and longitude 91°30' E and 97°30' E. Itanagar is the capital of the state. Most of the people native to and/or living in Arunachal Pradesh are of Tibeto-Burman origin.

It has mostly mountainous terrain with sparse population of 13,82,611 (7,20,232 were male & 6,62,379 were female) with the density of 17 persons per sq. km. and literacy rate of 66.95 as per 2011 census. The state is politically divided into 16 districts. The state is culturally and linguistically varied with over 26 major tribes and 120 Sub tribes and speaking over 100 dialects. The food habits and social system also varies from tribe to tribe.

Food Habits in Arunachal Pradesh

The staple diet in Arunachal Pradesh comprise of rice, meat, green leafy vegetables, rice beer etc.

Drinks: Rice Beer (Apong) prepared from Rice and burnt out ash of Paddy husk is the most common drink in the district. Rice Beer (Apong) is used in many social occasion such as local festival, social gathering, marriage ceremony and even in social interaction. Nowadays foreign liquors are also used abundantly.

Meat: The forest cover of Arunachal Pradesh is vast and hence birds and wild animals are also found in abundance. They hunt these animals in jungle especially the squirrels and rats. They are hunted and kept for many years after smoking in the fire place. They use them as bride price in some of the tribes like Adi, Padam, Pasi etc. The Mithun is the precious domestic animal which is used for bride price in some tribes and they are sacrificed during festivals and social gatherings. The meat is preserved for many years by smoking in the fire place.

Registry Area

East PBCR in Arunachal Pradesh covers whole of six districts namely East Siang, Upper Siang, Changlang, Lohit, Lower Dibang Valley and Tirap. These six districts cover an area of 26731 sq. km. with average population density of 26 per sq. km.

District	Male	Female	Total
Changlang	77289	70662	147951
East Siang	50467	48552	99019
Lohit	76544	68994	145538
Lower Dibang Valley	28127	25859	53986
Tirap	57992	54005	111997
Upper Siang	18657	16632	35289
Total	**309076**	**284704**	**593780**

Sources of Registration of Incident Cases of Cancer in Arunachal Pradesh - 2011

EAST SIANG	UPPER SIANG	LOHIT	LOWER DIBANG VALLEY
General Hospital Pasighat	District Hospital Yingkiong	District Hospital tezu	District Hospital Roing
Assa Nursing Home	Mariyang PHC	Namsai CHC	Parbuk CHC
Doctor's Diagnostic Centre Pasighat	Geku CHC	Hayuliang PHC	Dambuk CHC
Pane Clinic	Katan PHC	Chowkam PHC	Hunli PHC
Other Clinic in Pasighat	Jengging PHC	Sunpura PHC	Desali PHC
Boleng CHC	Tuting PHC	Lekang PHC	Koronu PHC
Ruksin CHC		Wakro PHC	Anpum PHC
Bilat PHC		Piyong PHC	Bolung PHC
Koyu PHC		Lathau PHC	Managament diagnostic centre Roing
Nari PHC			
Riga PHC			
Pangin CHC			
Mebo PHC			
Sille PHC			

CHANGLANG	TIRAP	REFERRING CENTRE
District Hospital Changlang	District Hospital Konsa	Dibrugarh AMC
Mehao CHC	Longding CHC	Dr. B. Borooah Cancer Institute
Kimyang PHC	Kambari CHC	Others
Namtok PHC	Deomali CHC	
Manmow PHC	Laju PHC	
Bordumsa PHC	Pangchuau PHC	
Joirampur PHC	Dadam PHC	
Karsang PHC	Pumao PHC	
Bijoynagar PHC	Soha PHC	
Nampong PHC	Wakka PHC	
Diyun PHC		

Method of Data Collection

A) Incident Data Collection at General Hospital Pasighat

The patients in the hospital are identified at OPD, Pathology Laboratories, Ultrasound room and X-ray room. The Social Investigator identifies the cases by themselves or the doctor concerned acknowledges the SI. The SI then directly interviews either the patient or their family members or friends who can provide correct information. The data mostly collected after interviewing the patient or accompanying person includes information of the patient, residential address with postal pin code, duration of stay at permanent address, diagnosis status, date of first diagnosis and other personal information like religion, marital status, cultural background etc as per the core proforma. The other information is collected from their medical

reports with the assistance of consultant doctors. Follow up of every patient is done through telephonic conversation or through observation and direct interview during their treatment procedure. To overcome the problem of incomplete cases, the doctors, workers at ward and laboratories are requested to jot down the name, sex, age, address, diagnosis and contact number of the patient. This filled in proforma are divided into 2 files:

1. Complete files: With the completion of information from the patients and medical records, the data is entered into the core proforma followed by ICD Coding by the PI and Research Scientist. This is entered into the computer through PBCRDM 2.1 software. Duplicate cases are checked and if found are eliminated from the database.

2. Incomplete files: Here the cases are usually incomplete as direct interview may not have been possible or the medical records may be missing. The consultant doctor, wards and registration counter is visited to seek further information. These incomplete files when completed are sent to the complete files for further processing.

3. Missing files. The SI is intimated about some cases by laypersons that come in contact during group interview or discussions. When the address or contact number is collected for these missing cases they go into the incomplete files and follow the same process until they are completed and entered into the software.

B) Incident Data Collection from Other Sources

The other sources are divided into 2 categories:

1. Cancer Diagnosis Source

2. Unavailable Cancer Diagnosis Source.

    - The Cancer Diagnosis Sources are the sources where cancer diagnosis can be done like AMC and BCCI. The SI collects data from the case files and medical records maintained by the respective PBCR. This data go through the same procedure as given in complete and incomplete files.

    - The Unavailable Cancer Diagnosis sources are the sources where cancer cannot be diagnosed due to unavailability of equipment and facilities like the CHC and PHC. The cases are usually suspected cases or could be cases that are under treatment hence under observation by a consultant doctor geographically far away and out of reach. The under treatment cases are interviewed through telephonic or face-to-face meeting with the assistance of CHC's doctors. The core proforma is filled up and then categorised as complete or incomplete files. The suspected cases are identified and the SI influences and tries to convince for further diagnosis and treatment.

There had also been some cases identified in Mother Teresa Home Borduria, Tirap District where the patient was said to be suffering from cancer and was under herbal treatment but the diagnosis had not been done medically. Thus, many cases are also being identified in this method by field visits to NGOs and Welfare Institutions.

Mortality Data Collection: Mortality data are collected from medical records from district hospitals, birth and death registry at district offices and verbal information of death from the relatives of the deceased.

Difficulties in Data Collection

- Since there is no department of Oncology or Radiotherapy in our registry area, the cancer cases are referred to other parts of India. This creates high dependency on outside sources.
- Absence of municipal bodies for proper certification of death and lack of awareness for certification among the people.
- Villages in Arunachal Pradesh are scattered so identification of patient at village level is hard and locating their exact house address is difficult.
- Physical-geographical barrier in this part of Registry with mountainous region and extreme climate.
- Lack of awareness of the disease - most of the time people are unaware that they have cancer and diagnosis is done at the last stage.
- People's apprehension to disclose information regarding their illness.

Staff

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