

## **MORTALITY AND MORBIDITY PATTERN AMONG THE DIMASA KACHARI PEOPLE OF LANGTING AREA OF DIMA HASAO DISTRICT, ASSAM**

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### **ABSTRACT**

Mortality in North east India is marked by a declining graph but it has still high neonatal mortality rate (21 per 1000) live births). So far as Infant mortality in North Eastern states is concern significant spatial disparities exist and states such as Assam, Meghalaya and Tripura acting as a hotspot in infant deaths. The neonatal mortality rate in the North Eastern states declined from 45 to 21 per 1000 births (NFHS-1 to NFHS 5) but remains higher than the national average. Assam reported the highest mortality (42.16%) while Sikkim has the lowest (0.87%). Higher mortality was observed among male infants, mothers with advanced age, low maternal education and mothers who attended less than 5 antenatal care (ANC) visit. High infant mortality in the region indicates the existence of adverse socio-economic and environmental condition during birth. Government of Assam has launched several health and welfare related schemes to reduce mortality rate in Assam. Some of them are Janani Suraksha Yojana (JYJ), Mamoni and Mamata which were launched in 2005, 2009 and 2010. These schemes can be termed partiality successful because the people of Assam from remote area avoid institutional delivery and prefer local midwives. The study was carried out among the population of Langting area and 112 households were interviewed for the collection of data on mortality and morbidity patterns. Dima Hasao district, earlier called North Cachar Hills district, is an administrative district in the state of Assam, India. As of 2011, it is the least populous district of Assam. Dima Hasao district is one of the two Autonomous hill districts of the state Assam.

This paper focuses on the pattern of mortality and morbidity among the population of Dimasa Kachari of Langting area of Dima Hasao district of Assam.

**Keywords:** Mortality, Morbidity, Health, Disease

### **INTRODUCTION**

Mortality refers to the level of deaths within a population as measured by the number of deaths and the death rates characterizing that population during a particular time period. Death is defined as the complete cessation of life after a live birth has taken place. Morbidity is a diseased illness, disability or poor health due to some causes. The word can refer to the presence of some types of disease or to the extent to which the patient is affected by the health condition.

The rate of mortality and the patterns of mortality differ from one population to another. Hence, the study of mortality and mortality rates indicate or depicts the condition of health status of the people of a community. The specific mortality indicators of a population are crude death rate, infant mortality rate and age specific mortality rate. The risk of death varies markedly with age. The death rate is high in the first month after birth, declines during the rest of infancy and childhood, remains low during adolescence and young adulthood, and then rises gradually in middle age and steeply in old age. The

decrease and increase in mortality reflect the rise of physiological abilities and disease resistance during child development and their decline during senescence. This basic pattern has been observed for most human populations in different historical eras, for both males and females.

Morbidity refers to the state of being diseased. It may be defined as the state of affliction of an individual's health with a disease or disorder. Mortality is a stage at which person ceases to live but in morbidity the person is actually alive but his state of mind is such that he is not in a position to perform a solid mental or physical work (Raj, 1990). According to him in a state of morbidity a person can be deformed, deficient, mentality depressed or so on. Therefore, a person may be said morbid if he or she is unable or unfit to perform a mental or physical activity.

Health status and the morbidity of a community are affected and influence by various factors. Several factors of morbidity have been identified which determine the prevalence of morbidity. The important factors affecting morbidity are age, sex, socio cultural as well as socio economic and other environmental factors which have a dominant role to play in determining the health status and Morbidity of a population.

Age is one of the factors, which determines the state of health of an individual. Age is an important variable in any analysis of mortality. The age specific death rate is a measure that is most appropriate for mortality study. It is fact that infants and children are most susceptible to infection and other health issues.

Another aspect to be considered in the study of morbidity is sex of the individual. It has been observed that in most countries of the world, mortality conditions differ for males and females. The general experience is that the females have an overall advantage over males with respect to mortality. In most of the countries the average expectation of life at birth is higher for females than for males. In the early 1980s, a new born girl in the developed countries could expect to live many years longer than a boy. The number of additional years of female life expectancy ranges from 5 to 9 years in most of the countries. These large sex differentials in life expectancy reflect the fact that males in developed countries today have higher mortality than females in every age group and for most causes of death.

Dima Hasao district of Assam characterized by its hilly terrain, faces unique health challenges with high though improving mortality and morbidity rates often linked to limited access to care. Key health risk includes high anemia rates (over 60%) in women, maternal and child health concern which are managed through initiatives like birth waiting homes and specialized health interventions.

### **The People: Dimasa**

The Dimasa are one of the oldest inhabitants of the North Eastern part of India and is one of the many Kachari tribes. At present the major population of the community has been residing in the hill district of Dima Hasao district and in scattered numbers in the districts of Karbi Anglong, Nagaon and also in the Barak valley area. Outside Assam the Dimasas are also settled in Nagaland. The language spoken by the Dimasa belong to the Tibeto- Burman linguistic group. The word "Dimasa" stands for "the son of big river". To interpret the same in Dimasa language, "Di" means water or "river", "ma" means big and "sa" means son. Historically, as the Dimasa kingdom flourished on the banks of different rivers, the people have preferred to introduce themselves as the son of a big river. The Dimasa people of Langting are mostly engaged in agriculture. Shifting cultivation is the most preferred cultivation. They also domesticate animals like pig, chicken, goat, duck, pigeon, etc. They also domesticate fish in the fisheries. The houses of Dimasa people in Langting area are mostly traditional pucca and Assam type. They consume pork, chicken, goat and their traditional rice beers- Judima, Juharo, Jugap.

**Objective of the present study:**

1. To study the mortality pattern of the Dimasa Kachari people of the village Langting, in the district Dima Hasao, Assam.
2. To study the morbidity pattern of the Dimasa population of the village Langting in the district Dima Hasao, Assam.

**Methodology**

Fieldwork is the most important method by which cultural anthropologists gather data to answer their research questions. For the present study various methods like observation, interviews, questionnaires, case study, focused group discussion, etc. are applied to collect information. This paper is entirely based on primary data which were collected by the above mention methods of data collection.

**Results and discussion**

Among the population of Dimasa Kachari of Langting, most deaths are seen in age group above 60+ in males and females with 11 and 3 respectively. It is found that the most occurring cause of death is Diabetes and Stroke. It may be due to high blood pressure in the population and no proper diagnosis and precautions. Cause of death by accident is high among the male population whereas in case of females no accidental death is found. One death is found due to Rabies, the person is said to be a priest, Zonthai, it is believed that Zonthais are not allowed to have any consumption of medicines or administration of any injections. This may have led him to death because of no proper treatment. One maternal death has also been reported. Only two deaths have been found in age group 0-14, Hence child mortality is less among the population of Dimasa Kachari of Langting. Two reproductive wastage was found, one due to miscarriage and one due to stillbirth.

**Table 1: Mortality among the males and females of the study village**

Age groups (in years)	Male mortality		Female mortality		Total mortality	
	No.	%	No.	%	No.	%
0-14	1	4.76	1	14.28	2	7.14
15-34	1	4.76	1	14.28	2	7.14
35-60	8	38.09	2	28.57	10	35.71
60+	11	52.38	3	42.85	14	50
Total	21	100	7	100	28	100

From the above table, it is found that male mortality is higher than female mortality. Higher mortality is found among the people who are above 60 years (50%). The frequency is high among the males. Mortality is also found high in the age group 3-60 years (35.71%)

**Table 2: Distribution of mortality according to causes of death**

Cause of death	Male	Female	Total
Diabetes	7	2	9
Fever	1	1	2
Stroke	6	3	9
Accident	5	-	5
Rabies	1	-	1
Maternal death	-	1	1

Cancer	1	-	1
Total	21	7	28

Deaths due to Diabetes and stroke is the common cause of death in the population. This may be due to high consumption of meats like- pork, chicken and goat, etc. and also due to consumption of alcohol, tobacco, etc. Deaths due to accident is also high among male population, this maybe, due to rash driving and consumption of alcohol. In this table also the frequency is high among the males.

**Table 3: Reproductive wastage by age of mothers.**

Mothers age	No. of mothers	Total no. of pregnancy	Reproductive wastage	
			Miscarriage	Stillbirth
35	1	4	-	1
28	1	2	1	-

Reproductive waste is also seen in the population, one due to miscarriage and one due to stillbirth. Reproductive wastage is also linked to poor health of the mother. In the study population women who experienced reproductive wastage they also gone through multiple pregnancies and also hey are not aware of different health risk which effect their health and new born babies.

### Morbidity

In Dimasa population of Langting area, the most affecting disease is found to be High blood pressure, this must be the reason why the cause of death due to high blood pressure is more. Diabetes is also another disease which is high in number with 8.13%. As seen in table no.6 acute diseases like appendicitis is high among the study population. Joint pain and eyesight problems is also high among the elderly people. Water borne disease like gastric and hepatitis A is found with hepatitis A found in only one person. Air-borne diseases like Tuberculosis, Fever and common cold was also found. Stroke and Paralysis are also in high number, it may be because of high blood pressure people suffers from stroke and in most cases, stroke leads to paralysis. Chronic disease like Tumor and Cancer is also found in Dimasa population of Langting area.. Skin disease and allergies were also found. Nerve problem was found high in male population but less in female population. Organ failure is high in number in male population maybe due to high alcohol consumption among male population.

**Table 4: Sex wise patterns of morbidity in different age group of the population**

Pattern of disease	Male		Female		Total	
	No.	%	No.	%	No.	%
High blood pressure	5	7.04	8	15.38	13	10.56
Stroke	7	9.85	-	-	7	5.69
Paralysis	4	5.63	1	1.92	5	4.06
Skin disease	-	-	2	3.84	2	1.62
Tumor	1	1.4	2	3.84	3	2.43
Melena	-	-	1	1.92	1	0.81
Gastric	3	4.22	5	9.61	8	6.5
Thyroid	-	-	2	3.84	2	1.62
Cancer	2	2.81	3	5.76	5	4.06
Nerve problem	5	7.04	1	1.92	6	4.87
Diabetes	7	9.85	3	5.76	10	8.13

Joint pain	3	4.22	5	9.61	8	6.5
Malaria	4	5.63	1	1.92	5	4.06
Fever	5	7.04	2	3.84	7	5.69
Hepatitis A	1	1.4	-	-	1	0.81
Appendicitis	2	2.81	6	11.53	8	6.5
Common cold	2	2.81	-	-	2	1.62
Tuberculosis	1	1.4	-	-	1	0.81
Organ failure	7	9.85	1	1.92	8	6.5
Allergy	2	2.81	4	7.69	6	4.87
Kidney stone	2	2.81	-	-	2	1.62
Stomach ulcer	-	-	3	5.76	3	2.43
Mental disorder	8	11.26	2	3.84	10	8.13
Total	71	100	52	100	123	100

From the above table, it is seen disease like High blood pressure, stroke, paralysis, gastric, nerve problem, diabetes, joint pain Malaria, fever, appendicitis, organ failure, allergy and mental disorder is high in among the males than females. Females are found more suffering from gastric and joint pain.

**Table 5: Distribution of afflicted individuals according to various diseases**

Disease	Male	Female	Total
Malaria	4	1	5
Common cold	2	-	2
Fever	5	2	7
Gastric	3	5	8
Skin disease	-	2	2
Tuberculosis	1	-	1
Allergy	2	4	6
Total	17	14	31

From the above it is seen that Malaria, fever, gastric, allergy is high among the population. The frequency of different diseases is high among the males. Females are found more prone to allergy, gastric and skin disease.

**Table 6: Distribution of acute diseases among the population**

Disease	Male	Female	Total
Melena	-	1	1
Hepatitis A	1	-	1
Kidney stone	2	-	2
Thyroid	-	2	2
Appendicitis	2	6	8
Total	5	9	14

An acute disease is a health condition characterized by a sudden onset and short duration, typically lasting from a few days to a few weeks. Appendicitis is common among the population of Dimasa, higher cases is reported in females than in males. Other acute diseases reported are Thyroid, Melena, Hepatitis A, Kidney stone

**Table 7: Distribution of chronic diseases among the population**

Disease	Male	Female	Total
Cancer	2	3	5
Tumor	1	2	3
Tuberculosis	1	-	1
High blood pressure	5	8	13
Stroke	7	-	7
Diabetes	7	3	10
Joint pain	3	5	8
Total	27	21	48

Chronic diseases are long lasting health conditions typically lasting one year or more that require ongoing medical attention, limit daily activities or both. They are the leading cause of death and disabilities worldwide. In the study population Stroke and Diabetes is high in male population and high blood pressure is high in female population. Joint pain is also high among the females.

**Table 8: Distribution of Water-borne diseases among the population**

Disease	Male	Female	Total
Hepatitis A	1	-	1
Gastric	3	5	8
Total	4	5	9

Waterborne diseases are illnesses caused by microscopic organisms, like viruses and bacteria, that are ingested through contaminated water or by coming in contact with feces. These diseases can be spread while bathing, washing, drinking water, or by eating food exposed to contaminated water. Some of the most common waterborne diseases include cholera, typhoid fever, dysentery, and hepatitis A. There are many infections that may transmit by microbes or parasites that accidentally may have entered the water but they do not need to be classified as water-borne disease. Malaria is one such disease which is often misunderstood as water-borne disease. Among the study population Hepatitis A and Gastric are found among the males and females. Total 9 individuals are found to have these two diseases.

**Table 9: Distribution of Air-borne diseases**

Disease	Male	Fever	Total
Tuberculosis	1	-	1
Common cold	2	-	2
Fever	5	2	7
Total	8	2	10

Airborne diseases pass from one person to another when microorganisms travel through the air. Chickenpox, the common cold, and COVID-19 are examples of airborne diseases. Airborne diseases can transmit through coughs or sneezes, spraying liquid, or dust. The microorganisms may come from a person or animal who has a disease or from soil, garbage, or other sources. There are many types of airborne diseases, and the symptoms, treatment, and outlook will vary according to the disease. Ways of preventing transmission include the use of personal protective equipment and effective ventilation systems. Depending on the disease, an individual can help prevent transmission by avoiding close contact with others or wearing a face covering. Air-borne pathogens or allergens often cause inflammation in the nose, throat, sinuses, lungs, etc. Sinus, cough, sore throat are examples of

inflammation of the upper respiratory due to these air borne agents. So far as air born diseases are concern total 7 individual are found to be affected. The frequency is more among the males than females.

## CONCLUSION

The aim of this paper is to see the mortality and morbidity pattern among the Dimasa Kachari population of Langting area, Dima Hasao district of Assam. The total mortality found among the population is 28 out of which 21 were male and 7 were female. People belong to age group 60+ had the most number deaths with 11 in males and 3 in females. The most occurring cause of death is seen to be Diabetes with 7 in males and 2 in females. Stroke is also one of the major causes of death with 6 in males and 3 in males. The reason may be due to high blood pressure among the population of Dimasa. Accident deaths are found to be high among males with 5 individuals' death. Reproductive wastage is also seen with one miscarriage and one still birth.

The major disease affecting Dimasa population is found to be high blood pressure with total no. of 13 individuals 5 in males and 8 in females. Diabetes and mental disorder are also found in high numbers. In acute disease, appendicitis is found in high numbers. with 2 males and 6 females. Are found to be affected. In Chronic disease, diseases such as cancer, tumor, tuberculosis are found to be present among the population. Among the elderly people joint pain and weak eyesight is the most common one. Water borne disease like gastric and hepatitis A is also seen. Air-borne disease like tuberculosis, common cold and fever is also found among the population. From the study it may be concluded that most of the deaths occurred among above 60+ age group with Diabetes and stroke being one of the major causes. Mortality is higher in males than in females with 21 and 7 each sex respectively. Accident deaths are high in males with 5 individuals.

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