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Food Culture, Nutritional Status and Health-Care Accessibility of the Kukis of Manipur

Ruth Nengneihing

The paper studies the quality of life and health of a conflicted affected population by taking the case of the Kukis of Manipur in the aftermath of the 1990s' Kuki-Naga ethnic conflict. The clash resulted in the uprooting of hundreds of villages with the loss of more than 1,000 lives and enormous internal displacement. Conflicts have often resulted in various forms of infectious diseases in epidemic forms resulting in high rate of mortality among the affected population. The objective of this paper is to study the quality of life and health of the conflict affected Kuki population in three selected sites: Chavangphai, Gelnel and Tujang Vaichong. The determinants of health that are taken in the study are food culture, nutritional status and accessibility to health care facilities. It takes into account the health indicators such as height, weight, Body Mass Index (BMI) and mortality rates.

Keywords: Food, Kukis, Nutrition, Anthropometry, Nagas, Mortality, Health-Care

Introduction

The article is an attempt to understand the quality of life of a conflict affected population, viz, the Kukis of Manipur. The conflict that constitutes the core of the discussion is the Kuki-Naga conflict of the 1990s. "The Kuki-Naga conflict, which was mainly fought on land and identity issues, resulted in the uprooting of hundreds of villages, with the loss of more than 1,000 lives and enormous internal displacement. The British colonial policy of governance in the north-east frontier of India and the rise of ethnic nationalism among both the Kukis and Nagas in the post-independence period were the roots of the conflict" (Haokip, 2013: 251). Conflicts have often been known to cause high rates of infectious diseases in epidemic forms resulting in high rate of mortality among the affected population. Cholera epidemics have occurred in refugee camps in Malawi, Zimbabwe, Nepal, Bangladesh, Turkey, Afghanistan, Burundi and the Democratic Republic of the Congo, with the case of fatality rates ranging between three and thirty percent. Outbreaks of dysentery caused by *Shigella*

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dysenteries type have been reported since 1991 in Malawi, Nepal, Kenya, Bangladesh, Burundi, Rwanda, Tanzania and the DRC. In addition, epidemics of measles and malaria are reported from refugee and internally displaced populations (Toole & Waldman, 1993).

The Kukis of Manipur also have had their share of conflict resultant diseases or epidemics. According to oral narratives, epidemic known in the local dialect as *Natgol*, is prevalent at various points in history whenever the community encounters conflict of any forms. An elderly respondent from Chavangphai remembered how people suffered from piles only after the 1943 Japanese bombing of Imphal (Nengneihling, 2012). Therefore, piles is locally termed as Japan disease or *Japan Nat*. Another common disease which was highly prevalent and considered fatal during those days was cholera and there was the cholera epidemic which was believed to be brought in by the Indian immigrants who had fled from Burma in the year 1941. The Second World War (1939-1945) affected the Kuki population in different ways. In the beginning of the Second World War, Subhash Chandra Bose gave an order to the Indians living in Burma to evacuate as the Japanese army were arriving. So, in 1941 the Hindi speaking Indians settling in Burma fled in great numbers. These evacuees were affected by cholera disease. And as they passed through many Kuki and Naga inhabited areas, the disease spread like wildfire. This resulted in a Cholera epidemic in the entire Chashed region which is nowadays known as Ukhrul district. A number of people died due to the epidemic. The Kukis called this epidemic '*Mayang Nat*', '*Mayang*' referring to the mainstream Hindi speaking people and '*Nat*' means disease. Among the Kukis, Cholera is also known as *Puhchut*. The epidemic was followed by a great famine in the year 1942. Since many people got sick, the agricultural activities was disrupted and discontinued. As such, food items became scarce and there was shortage of food and safe drinking water due to the large influx of people. During the cholera epidemic, the *thempu* (traditional healer) treated the people by using '*doithu*' which is the traditional method of healing by performing various kinds of rituals. Many people suffering from cholera were cured except those in the last stage of the disease who could not recover (Nengneihling, 2012: 102).

During the Kuki-Naga clash, it was not only guns and weapons of combat that caused death. In one of the affected village Gelnel, it was also caused by the malaria epidemic that were resultant of the attack and burning down of the village by the NSCM-IM militants (Nationalist Socialist Council of Nagaland led by Isak Chishi Swu and Thuingaleng Muivah) in September of 1993. Ninety percent of the houses were burnt and 17 villagers were killed on the same day. The debris of the dead bodies and the destruction caused an unhealthy site. Soon after, a malaria epidemic broke out in the area, killing about seventeen persons from the village and many were declared to be seriously ill. The patients were taken to the Primary Health Centre at Tujang Vaichong. However, lack of proper healthcare amenities and facilities led to the loss of many lives. Altogether around three hundred persons in this region died, of which about seventeen were from Gelnal. Therefore, based on historical evidence, conflicts have always been synonym with the outbreak of epidemics. Conflicts have often been known to cause high rates of infectious diseases in epidemic forms resulting in high rate of mortality among the affected population. The objec-

tive of the paper is to study the quality of life and health of the conflict affected Kuki population in three selected sites. The study is conducted among those affected by the Kuki-Naga conflict of the 1990s in Manipur: one is a resettlement area of the displaced population from Ukhrul district who had resettled in Moreh town (Chavangphai region) in the year 1992; the second study area, Gelnal, is a village which had been attacked and burnt down but they had resettled in the same village again; lastly, the third study area Tujang Vaichong is a village which had not face direct affects but had indirectly faced the ramifications or brunt of the conflict. The determinants of health that are taken in the study are food culture, nutritional status and accessibility to health care facilities. It takes into account the health indicators such as height, weight, Body Mass Index (BMI) and mortality rates.

Locating the Subject and Universe of Study

The word Kuki is a generic term, which includes a number of tribes and clans. It refers to an ethnic entity spread out in a contiguous region in Northeast India, North-west Burma and the Chittagong Hill Tracts in Bangladesh. In Manipur, they constitute an overwhelming population in Churachandpur district, Sadar Hills subdivision of Senapati district and Chandel district (including the new districts of Kangpokpi and Tengnoupal) (Sitlhou 2014:xi). All the three areas that constitute the universe of study are in Manipur.

a) Chavangphai: Most of the settlers in Chavangphai originated from the eastern part of Ukhrul district, while few settlers are from Chandel district, both in Manipur. In either case, they are an affected group of displaced population during the Kuki-Naga clash in the early 1990s. Chavangphai is situated on the south east part of Moreh town. Lailok River divides the area from Canaan Veng and Muslim Nagar which lies on the West and South of the area respectively. On the northern part of Chavangphai, lies S. Mouljol village while on its east lies Burma. It has a population of about 1158. The female population comprises of about 597 which is more as compared to a male population of around 561. In their earlier settlement areas, the people of Chavangphai were under the system of chieftainship. Each village had its respective Chiefs. Thereby, in the resettlement place, there are a number of village chiefs who are now no longer exercising their chieftainship. After coming to Moreh, the administration of the village has been taken over by the Hill Tribal Council. Chavangphai constitutes unit XII under the Hill Tribal Council, Moreh.

b) Gelnal Village: Gelnal village was established in the year 1928. It was earlier known as *Lammatek*. This place was populated with oak trees which created a beautiful picturesque scene. As such, when Gouthang and Chongkhosat Lhangum, the two brothers who first settled in this place renamed this village as *Gelnal* which literally means “*Beautiful oak*”. After Gouthang passed away in 1964, his son Thangkhosat Lhangum who was just 20 years old then took over the chieftainship. However, despite his young age, he competently stepped into his father’s footsteps in governing over the village.¹ It was on the 13th of September 1993, that Gelnal village was attacked and most houses burnt down by the NSCN (IM). On that fateful

day, seventeen persons died and about ten persons were severely injured. Soon after, the neighbouring villages like Gelbung, Tujang Vaichong and Chalwa rushed in and extended help to the afflicted villagers. The 21 Assam Rifle, Kangpokpi Police, Kuki Inpi and other Kuki organisational bodies also arrived with aid and attended to the plight of the battered and injured villagers.² In the next few days children, older folks and women folk were shifted to the nearby villages, while the men stayed back, provided protection by the 21 Assam Rifle. They flocked together and took shelter in the village community hall which was spared from being burned. The villagers returned and resettled to their village few days later when the situation became calmer. However, soon after this attack, the village was struck by a Malaria epidemic. Due to lack of proper medical aid and lack of effective transport and commutation system, about eighteen villagers both young and old lost their lives.³ The village administration continues to be governed by the Chieftainship system.

c) Tujang Vaichong Village: Tujang Vaichong is a village of historical importance for the Kukis as the first Kuki Baptist Church was established in this village in 1914. Moreover, in the year 1917 when the First World War was going on, the then chief of Tujang Vaichong, Chongjalhun Kipgen and eight men from his village joined the British troops. They were rewarded by the British for their service in the war in the form of tax exemption and rights to land over the present settlement area. Tujang Vaichong is located in Sadar Hills, sub-division of Senapati district and I.T. road which is a connecting roadway from Kangpokpi district to Tamenglong district passes through the village. The village is populated by both Kukis and Nepalese with the latter comprising about eight percent of the total population in the village. The successor to Chief Chongjalhun, Khothang was killed during the Kuki Naga clash on the 27th of June, 1993. Till the present day, it is administered by Chieftainship system of governance. The village became a sanctuary to many refugees who were evicted from their villages during the ethnic conflict. A Primary Health Centre is located in the village; thereby the village provided first aid and medical treatment when a malaria epidemic broke out in the neighbouring villages.

Food Culture, Consumption Pattern and Associated habits

a) Nutritious Food versus Economic Constraint

Studies have shown how income and food costs determine food selections, and often override considerations of health, social desirability and even taste. Seasonal availability of food and the relative cost of food are always considered in any cultural survival strategy. With the expansion of the modern market system, the seasonal limitations have to some extent been overcome. Amongst the Kukis, limitations of cash income and lack of cultural knowledge about nutritional needs and the nutritional contents of foods have become key constraints in the construction of nutritious diets (Messer, 1989). When people rely on the market, economic considerations may be foremost in food choices. However, even with adequate nutrition knowledge people may not have the economic means to feed themselves at optimal or even adequate levels. This predicament is shown in many studies conducted by scholars all over the globe. In their

study of food choices of Native American, Calloway and Gibbs (1976) concluded that inadequate nutrition levels were a result not of lack of nutrition knowledge, but of lack of money. They had respondents describe and rank foods according to nutritiousness and found that the respondents had a clear idea of what a nutritious diet should consist of, but still could not afford such foods. De Walt and Peltó (1976) asked respondents in a Mexican village to rate foods according to taste, healthfulness, and economic value, and found that people had accurate notions of “nutrition” (or at least, accurate notions of categories analysts identifies as a ‘protein’ factor). Their sample, however, chose foods largely according to budgetary considerations.

The need to pay more attention to economic factors in patterns of food intake also has been noted on general nutrition surveys. Schuftan (1979) has suggested that since the real problem in malnutrition is lack of food-purchasing power, nutrition programmes should address malnutrition in economic rather than nutritional terms; that is; they should measure deficits in the purchasing power of the households and give priority to nutrition programmes that generate income, new employment opportunities in food production, and food-related services. Focus group discussion of elderly members was carried out to derive data regarding change in food intake before and after the conflict (with 1992-1993 as the deciding year). Applying this insights to our universe of study, of the three field areas, the food habits of Gelnal and Tujang Vaichong villages were similar in nature as they lie in the same region geographically adjacent to each other, while Chavangphai is slightly different in its characteristics and far removed from the other two regions. Though the concept of socially prestigious and nutritious food is prevalent yet their consumptions patterns are subject to the availability and linked with their economic condition.

b) Food Preferences and Mode of Preparation

The structure of a food system is heavily influenced by the nature of its staples or focal foods. Such foods are those that are eaten frequently and that generally supply a large portion of a people’s caloric intake. Nicod (1974), for example, defines a staple as a food that regularly occurs at one or more meals daily. Staples can be analysed in terms of their frequency, the way they become integral parts of dish and meal structures, or the proportion of calorie intake they account for. While we tend to associate the notion of staples with cereal or starchy root-crops used in farming societies, herding societies use meat or dairy products as staples (Goode, 1989).

The diet of the Kukis primarily consists of rice, pulses and vegetables. Animal products, fish, beef, pork etc. are consumed but occasionally by the majority of the villagers in the three field areas. It is only when a live pig or a cow (or chicken, duck etc) is slaughtered in the village that there is a chance for them to consume non-vegetarian meat. Like other peasant communities, agriculture serves as the main source of livelihood of the Kukis. Therefore, land constitutes one important asset which provides avenues for survival. They practiced two types of cultivation: in the paddy fields called *changlei* (rice) and in the forested land called *joulei* (potatoes, beans, maize, cabbage, mustards, brinjal etc.) Rice is the main staple food. Food among the Kukis is normally prepared with gravy, with soup or

stew-styled. Food items are preferably simply boiled, and the use of cooking oil or deep frying vegetables is found to be very minimal. Usually a meal consists of a dish with gravy which is taken with rice, the staple food among the Kukis. Along with this, there are other side dishes which usually consist of some boil vegetables and a hot spicy dish usually made of fermented fish and red or green chillies. One special curry of the Kukis called *mepoh* consist of vegetables or non vegetarian food cooked along with a little amount of rice and some green vegetables is found to be popular among the study area. As mentioned above food items like beans and fish are fermented and used while cooking to add flavour to the dish. They have a unique method of preservation of food to store it for future consumption. Vegetables like beans (including the leaves), mustards and bamboo shoots are fermented and kept in close containers. Non-vegetarian food items like fish and beef are preserved in two methods, it is both fermented and dried. While pork, beef, deer meat etc. are dried over fire place for future use.

c) Frequency of Meals and Food items

Anthropologists, historians and sociologists have researched the many ways that eating patterns have developed in relation to historical period, social class, gender, caste, or other social status. There is a close linkage between consumption pattern and culture (Korsmeyer, 2007). Social construction of culinary practices, eating behaviours, notions of food and determinants of taste depends on religion, region, history and culture. How often one eats, the times of days and night that one eats, the kinds of food one eats in general and on each eating occasion, and with whom one eats are ways of communicating information about one's own social and cultural identity and relationships with others (Messer, 1989). Food is described as a system of communication, a body of images, a protocol of usages, situations and behaviour. In other words, food sums up a situation, constitutes information, and becomes a sign and unit of a system of communication when one buys an item of food or consumes it (Barthes, 2008:29).

Foods may be classified as "meal items" (Lewin, 1943) and "snack foods" i.e. those that are "uncooked" and consumed without the major cooked staple or eaten outside of the regular meal settings. Or certain dishes may be considered as special foods eaten only at feasts or as famine food consumed only if other more preferred foods are available (Messer, 1989). How many meals are prepared and their timing during a day is also culturally determined. The number, timing, structure and contents of meals may be relatively fixed, as in upper-class British society (Douglas, 1972), or the number of meals and ingredients may vary throughout the year according to seasonal resources and festivities. If the firewood or other fuel supplies are short and/or expensive, and if the food provider-preparer has other work responsibilities, the number of meals defined as "cooked food" may be restricted (Goode, 1989).

Factors of income levels of the households, perceived prestige values, and availability of fresh foods and other ingredients in different cultural contexts also affect continuities of ethnic dietary structure. The average eating habit of a

person comprises of two to three meals in a day. The first meal is taken in the morning which is usually taken around 8 to 9am. There is also an afternoon meal which is called *sun-an*, which is usually the left-over or kept aside from the morning meal. However, this meal is mostly taken by those who go to the field for work. And the other meal which is dinner is usually taken around 6 to 7 pm when those going to the fields are back in the house or when all the members of the households are present after the day's work. In between the main meals, tea and snacks are taken. However due to the less availability of these provisions in some of the households, people usually avail them in local tea-stalls which are also places of having conversations or discussions especially among the men folk. The consumption of eatables in between meals varies among the various income groups. The household of the higher income groups are the ones who can afford such food habits while most of the low income households are just able to meet costs of two square meals in a day. And the frequency of taking non-vegetables food varies on the income level of the households. However in Gelnal and Tujang Vaichong villages, it was more a matter of availability than affordability. There are weeks or months when they do not have any non-vegetarian food items in their meals. It is only during certain occasion when there is a feast thrown by some families in the village on certain occasions that some families admit that they get to eat non-vegetarian food. In most cases, the non-vegetarian items which they either get from wild animals or other domesticated animals are taken to the nearby towns which can be sold at higher prices. As such, the local people hardly get access to these meat products. Although the Kukis are mostly non-vegetarian and extremely fond of non-vegetarian food items, yet its consumption is found quite limited to ceremonial and festival days. The non-vegetable food items consumed are fish, beef, pork, poultry meat etc. Some of the animals are hunted in the nearby jungle. However the practise of hunting is considerably decreasing almost to the extent of extinction compared to the earlier days. Some of the common fruits which are available and consumed are papaya, pineapple, guava, lemon, big-lemon type of fruit called *seh* in local term, mango and some other wild fruits.

Jerome (1975) used a strategy to study the food patterning in her study in Kansas City. Accordingly, foods consumed more than two or three times per week by 25 per cent of the households were classified as the core. These tended to be foods referred to in terms such as "common", "regular," and "must have." The secondary core consisted of those consumed once a week by 25 per cent of the households. A third segment, the periphery, consisted of foods consumed a few times a month. These were expensive and had special social associations. Finally, a ceremonial, marginal segment consisted of foods eaten rarely, six times a year or less and usually reserved for special occasions like holidays and particular feasts.

As found in the study, the dietary intake of the people hardly consist of any milk and its products and low consumption of fat in comparison to cereals, pulses and vegetables. In all the three villages, milk & milk products are observed to be almost absent from their daily diet. The consumption is found to be very minimal in all the

study area. Just a handful of households consume milk which is purchased from the Nepalis who would deliver it to their house. Households who can afford milk powder can enjoy milk tea but most households take black tea with large helping of sugar. In Chavangphai, the practice of consuming green tea is widely practiced. A thermos flask filled with green tea is available at almost every household which can be taken any time of the day.

In the case of Chavangphai village, most people opined that they had better food in their previous villages. They could get fresh vegetables from their kitchen garden or farm or even from the forest. They could also catch fish from the rivers and hunt animals in the jungles. Cattle and poultry could be reared in the villages which are their main sources of non-vegetables food. However, in the new settlement area, as there is no available space for kitchen gardening or farm area, they have to solely rely on the market for the food items. Rice and vegetables which they used to grow themselves in their garden or farm are now bought from the market. Pulses are now widely consumed as compared to their previous villages. However in the case of Gelnal and Tujang Vaichong, no drastic changes are notable although the prices and the availability of some of the food items have changed.

In Chavangphai village, the food items that are purchased from the market are rice, vegetables, pulses and every kind of food items. However, before the conflict, they felt that they were self-sufficient. All they needed from the market were items such as salt, sugar etc. Each household would have their granaries in which paddy would be stored for the yearlong consumption and vegetables could be obtained from the kitchen garden or from the agricultural farm. However, in the new settlement area, the situation holds the opposite where they have to purchase each and every food items. Instead of granary, they have tin boxes to store rice or other food items just for a week's use or not even a tin box in some cases. They buy what they need for the day. In Gelnal and Tujang Vaichong villages, rice and vegetables are still grown by the people. Green leafy vegetables and other vegetables are widely grown and consumed in these two villages. Some households purchase rice from the market which is then mixed with the local rice to sustain them throughout the year. The other food items bought from the market includes lentils, spices, salt, sugar etc.

d) Food sufficiency

The practice of communal sharing of food are one of the means by which people in hunting, gathering and horticultural societies maintain co-operation for other pursuits (Messer, 1989). They accounted that even in complex societies, food sharing has its political and nutritional dimensions, as in the institutionalised food sharing practice that happens during village feasting. However various ethnographic cases indicate that, as people confront potential starvation conditions, they avoid their obligations to share. Hospitality is triggered when food is available. Generosity may shrink to immediate instead of extended, kin networks (Firth, 1959; Dirks, 1978). The rituals and ceremonies of Sa-ai¹ (Gangte, 1993) and Chang-ai² (Gangte, 1993) which used to be practiced or performed in earlier days is now no longer found in practice. It is a practice where if the households produce more than the yearlong

sufficiency, they would give feasts to the entire villagers. An uncertain income source cannot fulfill adequately the demand of food security at the household level which restricts the practice of food sharing.

In the study it was found that the all households could avail to a minimum of two square meals a day. Majority of the households in both Tujang Vaichong and Gelnal had food sufficiency enough for yearlong whereas in Chavangphai, only few households enjoyed yearlong food sufficiency while majority of the households meet their daily rations on daily, weekly or monthly basis. In few low income households, they experience such times of not being able to meet the required amount of food for the family. They cope with the shortage by relying on their friends or relatives or in some cases they are provided help by the chief of the village. The oral history as narrated from the elderly groups points out that they had experienced times of famine during the past socio-political instabilities. And during such times, they depended upon wild leaves, roots, fruits and seeds of various plants which can be eaten raw or cooked. They mostly depended upon forests products for survival. However, no such case of acute shortage of food was found in the three study sites in the present times. The utilization of public distribution system in the three study villages can be said to be nil. On being asked about the existence of such system, many were unaware of it, while even those possessing the cards (Government Ration Cards), said that it is of little use to them. Many of the respondents asserted that they have never made use of the card to obtain items from the public distribution system.

The following table provides the determinants of health in the three study sites which is discussed in detailed in the discussion chapter.

Table 1. Availability of Health Care Services and Food in the three study sites (2010)

Determinants	Chavangphai (fully displaced and in a new habitation near in the periphery of a town)	Gelnal (devastated but returned to the old village)	Tujang Vaichong (indirectly affected)
Healthcare	Govt. Hospital, PHC, private in Moreh and Tamu, informal practitioner, 2 TBA, no ASHA	Medical attendant from Tujang vaichong, PHC in TV, 1 active ASHA (TBA), CHC/Mission Hospital (money & place to put up), Imphal for surgeries	PHC but irregular medical personnels, Pharmacist, medical attendant opening a small clinic, CHC, 2 ASHA (active), Imphal
Food pattern and food items	Rice, lentils, veg., non-veg, eggs for sick, granary before, weekly basis or daily basis now, access to varieties of food be-	More rice, more vegetables grown in the kitchen garden, both leafy and non-vegetables potatoes, pumpkin, yam, beans	Food items are similar with Gelnal but more use of non-veg, weekly market on Saturdays, all kinds of food items from the

	fore and limited to purchasing power now, even now all kinds of food items are found but restricted to budget	are widely found, scarce fish & meat (selling to fund their children's education) eggs, milk	area are sold
Frequency and quantity	2 to 3 meals, tea and snacks in between	2 to 3 meals, tea and snacks in between	2 to 3 meals, tea and snacks in between
Food sufficiency	Majority depend on market food which are bought on daily basis, less than five months food sufficiency	Majority throughout the year (granaries, non-market resources), most households have agricultural land to produce enough rice for the whole year, some households buy low quality rice from the market and mixed with the local grown rice	Majority throughout the year (granaries, non-market resources), most households have agricultural land to produce enough rice for the whole year, some households buy low quality rice from the market and mixed with local grown rice

Source: Fieldwork

Nutritional Status

a) Anthropometric Measurement

Nutritional status of certain age groups among the children and adults are taken by conducting an anthropometric measurement. The purpose of studying the nutritional status is to examine the differences across the three areas and between the two generations in each area. Thereby, tables are provided in the subsequent pages showing the nutritional status across the three areas for all age and sex groups. And the various determinants which are found in the three study areas helps in understanding the differences or the trend in the nutritional status.

Anthropometry is defined as the technique that deals with the measurement of the size, weight and proportions of the human body. The anthropometric measurements described in this study are standing height, recumbent length and weight. Weight is the measurement of the person's total body (DLHS: 2002-04)¹. Weight of the adults and children of two years of age and older has been taken by using weighing machine. They are made to stand on the weighing machine wearing minimum light dress and barefoot. In the case of children who are still unable to stand or are reluctant to stand on their own, the child is held either by the mother or the elder member and made to stand on the weighing machine. After which the latter's measurement is again taken on the weighing machine and the weight of the child is derived by reducing the weight of the mother from the total weight of both the mother and the child. Height is also equally important measurement in the assessment of nutritional status

and its interpretation in children is dependent on knowing the age of child (Latham, 1997). Height or stature is the distance from the crown of the head to the bottom of the feet (heels). The height measurement for adults and children of two years of age and older is measured on barefoot with the help of flexible steel measuring tape with the person standing against the vertical wall with face outward. While children less than two years are measured by letting the child in the supine position and pressing his/her knee to the bed or floor level. Length is the distance from the crown of the head to the bottom of the feet (heels) while the child is measured supine.

b) Study Design

To conduct an anthropometric study of the three villages, height and weight of the following age groups were taken by identifying members of the desired age groups from the fifty sampled households as well as other non-sampled households by using snowball sampling method. Teachers in the school and Sunday school also helped in identifying people of these selected age groups. The following are the different age-groups from which the data were collected.

i. Children below 5 years

From this category of age-group, fifty children each were taken from each selected study area. Firstly it was identified from the previously fifty sample households. Subsequently children belonging in this age group were also identified by using snowball sampling method and their measurement taken. To derive equal number of sampling for a comparative study among the three villages, fifty children were taken as this was the maximum number of children collected in one of the villages. The study assessed the nutritional status of children with anthropometric measurement and relate with its determinants. Interviews with households and mothers were undertaken using interview schedules. Heights and weights of children less than five years were measured.

ii. Adults age-group

Similar to the selection of the above age group, this group is also selected by identifying people from the previously selected fifty sample households. And using the snowball sampling method, more people belonging to this age group were then identified and measured. To make the number of samples equivalent, the number was rounded at forty since this constituted the maximum number of samples in one of the three villages.

b) Age Groups taken for Nutritional Assessment

Children and adults for the anthropometric study are selected on the basis of the following age-group. 0-5 years among the children group were selected. Among the adults, 18 to 22 years adults were selected in Gelnal and Tujung Vaichong villages, while in Chavangphai village, the age group is taken from 19 to 23 years. The other group of adults taken for the study is the age group of 36 to 42 years in Gelnal and Tujung Vaichong while in Chavangphai, the age group is taken in the range of 37 to

43 years.

The demarcation of the age groups in the three different villages as well as among men and women is provided below. The following age demarcation is for the reason of studying the two time points of before and after the conflict. In Gelnal and Tujang Vaichong, 1993 is taken as the demarcating year whereas 1992 is the demarcating year in the case of Chavangphai.

Table 2. Sample age-groups for anthropometric measurement

Gelnal & Tujang Waichong		Chavangphai	
<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>
In 0-5 age group during the conflict: Age group 18 to 22 years (1993,1992,1991, 1990,1988)	In 0-5 age group during the conflict : Age group 18 to 22 years (1993,1992,1991, 1990,1989)	In 0-5 age group during the conflict : Age group 19 to 23 years (1992, 1991,1990,1989,1988)	In 0-5 age group during the conflict: Age group 19 to 23 years (1992, 1991, 1990, 198,1988)
In 18-22 age group during the conflict: Age group 36 to 40 years (1975,1974,1973, 1972,1971)	In 18-22 age group during the conflict: Age group 38 to 42 years (1973,1972,1971,1970, 1969)	In 18-22 age group during the conflict : Age group 37 to 41 years (1974, 1973,1972,1971,1970)	In 18-22 age group during the conflict : Age group 39 to 43 years (1972, 1971,1970,1969,1968)

Source: Fieldwork

c) Nutritional Status Of Children

Anthropometric measurement and dietary survey among children have been done to assess the nutritional status of children less than five years of age.

i. Child Feeding Practices

Exclusive breast feeding is the breast feeding by a mother to her child in which she does not give any kind of foods including water until the child completes his/her age up to five months. Continued breastfeeding is the breast feeding by a mother to her child who has been started on supplementary feeding. Generally this starts at 5-6 months of age and continues till the child completes his/her age up to 24 months. When a child completes five months, the child requires certain semi-solid food for growth and development with continuous breast feeding for body building, requirement of energy and protection from infection. At this age, child needs such supplementary feeding. The food is given in a small quantity at frequent intervals.

The child feeding practices for children from five months are taken for study. The daily food consumption pattern of children in the interviewed households depends mainly on cereals, pulses and vegetables. The diets of young children consuming solid food do not differ much from the diets of adults except for the amount of spices which is usually lessened for the children. Provision of eggs and other rich diets depends on the purchasing power of the family according to their living stan-

dard. Although children require feeding at least four or five times in a day but the usual frequency of feeding of children in the study is three times in a day. The proportion of children who receive food five times a day or two times a day is very low.

The practices involved in child weaning is found to be almost the same in all the three villages. However, variation is found among the different income groups. Normally, a child is breastfed until about six months. After which, alongside with the breastfeeding the baby is also fed with solid food. In most cases, the solid food consists of softened food which is either mashed or chewed by the mother or any other female elder member in the family and then fed to the baby. The mashed rice is also mixed with some baby foods purchased from the markets like cerelac. Among some higher income households, the baby is fed with cerelac alone without mixing it with rice. It is found in this study that variety of food items are fed to the child. Children are fed cereal food made from rice, maize, pulses, red meat, chicken and fish, pumpkins, sweet potatoes, potatoes, yam, green leafy vegetables, fruits like papaya, banana etc which are available in the market or in the kitchen gardens. The provision of these foods is greatly determined by the income of the household as children from higher income households are found to be fed with more varieties of food items than children from the low income group.

ii. Anthropometric measurement of children

Measurements have been developed as indices: three indices have been calculated to assess the nutritional status of children. The three indices of nutritional status are expressed in standard deviation units (SD-Z scores) from the median of the International Reference population. Calculation has been done of nutritional status of children with these three indices and further has been compared as such with reference population. The indices to determine the nutritional status of children is calculated by using the WHO anthropometric calculator. Children are categorised as undernourished who are more than two standard deviations below the reference median on any indices. Those children who fall more than three standard deviations below reference median have been categorised as severely undernourished. Three standard indices of physical growth have been used to assess the nutritional status of children (NFHS-3).

iii. Weight for age (underweight)

It is a composite measure of under nutrition that assesses both chronic and acute under-nutrition. Children are characterised as underweight when they are more than two standard deviation below the reference median with their weight for age and as severely underweight when they are more than three standard deviations below the reference median while compared with the median reference child of the same age and sex.

iv. Height for age (stunting)

It is the measurement of linear growth retardation of children and prevalence of chronic under nutrition. Children are categorised as stunted if they are under nourished. Thus,

children fall under the category of stunted when they are more than two standard deviations below the median of the reference population with regard to their height for age and as severely stunted when they are more than three standard deviations below the median of the reference population in comparison with reference child of the same age and sex.

v. Weight for height (wasting)

It is the measurement of the body mass with regard to body length and is used to measure the prevalence of acute under-nutrition. Children become wasted while they remain more than two standard deviations below the median of reference population in relation to weight for height and as severely wasted while they remain more than three standard deviations below the median of reference in comparison with reference child of the same height/length and weight.

Table 3 shows the village wise distribution of the nutritional status of children group (0-5) and Table 4 presents the sex wise distribution in the three villages based on the indices of weight for age, height for age and weight for height.

Table 3. Village wise distribution of Underweight, Stunting and Wasting Children

Study Area	Sex	Underweight weight for age (in %)		Stunting height for age (in %)		Wasting weight for height (in %)	
		<-2SD	< -3SD	<-2SD	< -3SD	<-2 SD	< -3SD
Ch.*	Male	26.1	8.7	39.1	4.3	13.0	4.3
	Female	37.0	3.7	29.6	7.4	14.8	7.4
Gn.*	Male	25.0	3.6	25.0	7.1	7.1	3.6
	Female	22.7	0.0	27.3	4.5	9.1	0.0
Tv.*	Male	16.7	0.0	20.8	0.0	12.5	0.0
	Female	26.9	3.8	26.9	7.7	7.7	3.8

Source: Fieldwork (* Ch.-Chavangphai, Gn-Gelnal, Tv-Tujang Vaichong)

In Chavangphai, girls are more under-nourished than the boys. This is evident in the data on underweight and wasting, while boys are found to have more stunting than the girls. In Gelnal, the levels are similar for boys and girls, with girls doing marginally better. In Tujang Vaichong, girls seem to be doing much worse than the boys. As urbanisation and modernisation influences increase as well as market dependence increases, the gender differences appear to have widened.

Literature on the relationship between the anthropometric indicators and the selected socio-demographic, environmental and economic variables demonstrates that

dietary intake and infectious disease, and the interaction between these two factors, are the primary biological determinants of children's postpartum growth patterns (Pebly and Goldman, 1995). Protein energy malnutrition signifies an imbalance between the supply of protein and energy and the body's demand for these to ensure optimal growth and function. Malnutrition in children is the consequence of a range of factors that are often related to poor food quality, insufficient food intake, and severe and repeated infectious diseases, or frequently some combinations of the three (De Onisa and Blossner, 1997).

Azizur Rahman et.al., (2008) in their study on malnutrition in Bangladesh shows that demographic situations such as-increasing levels of maternal health and child's birth size; high socio-economic conditions such as-higher parental education, household economic class and media exposure; improved health system practices such as good immunisation and supplementation practices and standard living conditions as well as health facilities, and also residency in the more developed divisions were the important factors associated with lower prevalence of malnutrition.

Our study data shows that living in the more developed area has not benefitted the nutritional status since standard of living has worsened despite better cash incomes. The prevalence of inadequate growth or malnutrition among children is a significant health policy concern in the developing world because it is a precise indicator of nutritional status, is associated with mental development and learning ability and is also associated with body size as well as work capacity in adult life (Rahman, 2008).

d) BMI cut off points to determine the Nutritional status of adults

The nutritional status of the adults has been examined based on the South Asian BMI cut off points. The Body Mass Index [weight in kilograms/height in metres] was used as an indicator of nutritional status of the adults. For many Asian populations, additional trigger points for public health action were identified as 23 kg/m² or higher, representing increased risk, and 27.5 kg/m² or higher as representing high risk. The suggested categories are as follows: less than 18.5 kg/m² underweight; 18.5–23 kg/m² increasing but acceptable risk; 23–27.5 kg/m² increased risk; and 27.5 kg/m² or higher high risk (James et al., 1988).

Important differences exist in the form of higher/lower body fat content for a given BMI in South-east Asians, Polynesians, Micronesians and Asian Indians. With this in mind, the International Diabetes Federation has accepted BMI value of >25 kg/m² and 23 kg/m² as the cut-off for obesity for Asian men and women respectively (Eckel and Zimmet, 2005).

Table 5 shows the nutritional status of the adult population 18 to 23 years based on South Asian BMI cut off points. The table shows the highest percentage of adults who are underweight is in Chavangphai with twenty percent as compared to Gelnal and Tujang Vaichong with fifteen percent and ten percent respectively.

i. Nutritional status of adults

Table 5. Nutritional status of adults 18 to 23 years based on South Asian BMI cut off points

Study area	Sex	Adults who are Obese		Adults who are Overweight		Adults who are Normal		Adults who are Underweight	
		<i>in %</i>	<i>No. of obese</i>	<i>in %</i>	<i>No. of over weight</i>	<i>in %</i>	<i>No. of normal</i>	<i>in %</i>	<i>No. of under weight</i>
Ch.	F	4.8	1	14.3	3	57.1	12	23.8	5
	M	0.0	0	10.5	2	73.7	14	15.8	3
	T	2.5	1	12.5	5	65.0	26	20.0	8
Gn	F	0.0	0	20.0	4	70.0	14	10.0	2
	M	0.0	0	5.0	1	75.0	15	20.0	4
	T	0.0	0	12.5	5	72.5	29	15.0	6
Tv	F	5.0	1	15.0	3	70.0	14	10.0	2
	M	0.0	0	10.0	2	80.0	16	10.0	2
	T	2.5	1	12.5	5	75.0	30	10.0	4

Source: Fieldwork

Table 6. Nutritional status of adults 36 to 43 years based on South Asian (BMI cut off points)

Study area	% of adults who are obese			% of adults who are overweight			% of adults who are normal			% of adults who are underweight		
	F	M	T	F	M	T	F	M	T	F	M	T
Ch.	5.0	2.5	7.5	2.5	5.0	7.5	25.0	30.0	55.0	20.0	10.0	30.0
Gn.	2.5	5.0	7.5	5.0	10.0	15.0	25.0	32.5	57.5	12.5	7.5	20.0
Tv.	5.0	5.0	10.0	12.5	7.5	20.0	30.0	25.0	55.0	10.0	5.0	15.0

Source: Fieldwork

Table 7 shows the nutritional status of adults of 36 to 43 years based on South Asian BMI cut off points. The highest percentage of adults who are underweight is found among the adults of Chavangphai with 30 percent which is followed by Gelnal with 20 percent and Tujang Vaichong with 15 percent. The table also shows that the number of overweight is highest among the adults of Tujang Vaichong with 20 per-

cent, followed by Gelnal with 15 percent and Chavangphai with 7.5 percent.

Table 7. Heights of two adult age groups at the three study sites

Study sites	19 to 23 years			37 to 43 years		
	Mean height (male & female)	Mean height (Male)	Mean height (Female)	Mean height (male & female)	Mean height (Male)	Mean height (Female)
Chavangphai	153.0	158.8	147.8	153.9	159.9	148.6
Gelnal	154.5	159.0	149.6	155.3	159.3	150.4
Tujang Vaichong	154.6	159.1	150.9	155.1	160.1	151.4

Source: Fieldwork

The table shows the comparative heights of the two generations gaining height immediately before and after the conflict. It is seen that the overall heights of adults is in ascending order i.e. Chavangphai, Gelnal, Tujang Vaichong. And even in the previous generation, the order is similar, indicating that the experience of violence is probably also influenced by the socio-economic status, with the poorer settlements being more vulnerable or that the more vulnerable continue to stay at resettlement sites while the better off may move elsewhere. The clusters of villages that are settling at Chavangphai are originally from Ukhrul district whereas Gelnal and Tujang Vaichong are held from Senapati district.

As such for a better analysis in regard to this, the District Level Household Survey (DLHS) 2007-08 showing the varying district level percentage of population and household characteristics is consulted. Based on this data, the population and household variables shows that in regard to the low standard of living Index, it accounts to 26.1 percent and 30.4 percent respectively. And the high standard of living Index is 6.9 percent and 1.0 percent in Senapati and Ukhrul respectively. At the same time, geographical factors also cannot be sidelined for the intense experiences in certain parts of the state by a section of population, meaning the party who resided in the area of the dominant party tend to fall prey in the hands of the latter.

The table shows that there is not much difference in heights of males across the three sites whereas the height of women is in ascending order by socio-economic status of settlement. The table also shows the change in heights over the generation, who was 19-23 years at the time of violence and the generation who are now 19-23 years, overall show a decline across all the three sites. The decline is in descending order of socio-economic status, i.e. greatest decline in the poorest standard of living, Chavangphai, then Gelnal and then Tujang Vaichong. The decline follows the same pattern in case of women but does not in the case of men. These differences are small, and with small sample sizes, the need was felt for T-test to be conducted to see the statistical significance of the differences. Thereby, to test the difference between the mean of the two samples, T-test was conducted for all the mean height for all the age-groups, male and female in all the three study area. The test shows that the differences were not statistically significant. However,

they do conform to the trend that is seen in other indicators and therefore have a corroborative value.

e) Mortality Rates

One of the health indicators which have been taken is the mortality rates over the last five years. The data on mortality rates shows the correlation of displacement with high death rates. The displaced population in the new settlement area are found to be more susceptible to death. In the new settlement area where the displaced population have resettled, violence with other communities in the new settlement persisted from time to time leading to the loss of lives especially among the young male populations. The drastic change of climatic conditions from cold to hot humid climate could also be one reason for the vulnerability of the displaced population.

Table 8. Mortality experience in last five years

Study sites and total population	Chavangphai (1158 population)	Gelnal (780 population)	Tujung Vaichong (687 population)
No. of deaths	29	16	8
Deaths per thousand population	Deaths per thousand population 4 persons (70-80 yrs.), 12 persons (2-10 yrs.), 4 persons (15-20 yrs.), 3 persons (24-30 yrs.), 6 persons (40-51 yrs) Causes of death: old age, malaria, AIDS, maternal death, accident, killed due to clash or violence	Deaths per thousand population 7 persons (60-90 yrs.) 3persons (6-10 months) 3persons (7,11,16 yrs.) 3 persons (42,43,45yrs.) Causes of death: old age, typhoid, cold diarrhoea, one drowning case	Deaths per thousand population 2 persons (above 60) 3 persons (30 to 45) 3 persons (5 to 15) Causes of death: old age, Typhoid, AIDS

Source: Fieldwork

In Chavangphai, 29 deaths were reported within the last five years, amounting to a rate of 25 deaths per 1000 population in 5 years. In Gelnal and Tujung Vaichong the numbers of deaths are sixteen and eight respectively. The age-groups of the deaths are provided in the table where Gelnal shows the highest number of deaths among the elderly group between the age-group of 60 to 90 years. In Tujung Vaichong too, the causes are mainly old age and communicable diseases. In Chavangphai, there is greater death at younger ages, with communicable diseases, accidents and intentional injuries being high.

Clearly, the effect of the aftermath of violence has been differential on the health of those displaced and rehabilitated at a new site relative to that of those who settled

back in their village or were not displaced from it. This is despite the shift to an urban area, increase in cash incomes and greater access to markets, educational institutions and health services.

Health Care Services and Accessibility

The allopathic medicines that were first introduced to the people were tablets like MB and Quinine which in local term was also known as '*lou-eng*' meaning 'yellow-medicine'. With the conversion to Christianity, people began to refrain from the practice of traditional method of healing led by the *Thempu* (priest) as the ritualistic practice began to be considered not befitting to the Christian faith. In the three study areas, the available health care facilities are identified and categorised under government and private services. Under the government services are included- (a) Government Hospitals such as District Hospitals or the Government Hospitals in Imphal (b) CHC (c) PHC (d) Sub Centre (e) Anganwadi/ICDS Centre/ASHA. The sources from where health services are obtained that come under the private services are (a) Private Hospitals (b) Private Doctors/Clinics (c) Paramedics doing private practice (d) Traditional Healers/ Village Practitioners (e) Pharmacy/Drug Store. The healthcare diversifications in the three villages are further discussed in the following paragraphs.

a) Healthcare at Chavangphai

In their previous settlement areas majority of the people at Chavangphai had not availed any government services. The reasons for not availing the government health care as drawn from the study are the lack of nearby rural healthcare facility and lack of proper transport facilities for accessing the nearest available government health care. Tables 9 show the percentage of those who avail the government services and private services.

Table 9. Healthcare services used before and after at Chavangphai

Healthcare services	Before the conflict		After the conflict	
	Frequency	Percent	Frequency	Percent
Government	Nil	Nil	12	24.0
Private	43	86.0	4	8.0
Both government and private	7	14.0	34	68.0
Total	50	100.0	50	100.0

Source: Fieldwork

The people from Chavangphai had altogether the same kind of experience as they are all originally from the same region. Earlier when they felt sick, they mostly sought the help of the traditional healers or some partly trained health personnel. These health personnel treated the patients with allopathic medicines which they usually bought from Imphal, the capital of Manipur. The reason why they sought such treatment was that there were no health centres which could be accessed during an emer-

gency. In most cases, it was two days journey on foot to reach the nearest health centre. The situation was worsened by the bad transport and communication system. There were no vehicles reaching their villages. A sick patient would be taken to the health centre or hospital by carrying the patient on the back. In some serious cases, the patients succumbed to death on the way due to the delay in treatment. A narration by one of the respondents at Chavangphai:

Health services are much better here compared to the old village. In the village, the health centre was very far from our village. If we start out early in the morning, we reached the day after. We halt one night in one of the villages on the way and set out again in the morning. Then we reached a place called Chandrakhing where we got a bus for Imphal. My eldest son suffered from Malaria and Typhoid. As he was seriously ill, we set out to Imphal for treatment. However, due to the long journey we could not safely reached the hospital. He died on the way.⁷

The various healthcare services available in the new settlement site are the Moreh Hospital, the Primary Health Centre, private practitioners and some NGOs like the CDS working among the HIV and AIDS affected groups. Some of the villagers from Moreh seek health care from private practitioners at Tamu which is a border town of Myanmar. The Moreh hospital is found to be inefficiently functioning due to lack of infrastructure and shortage of health personnels. The area is one of the most trouble-torn areas in Manipur. As such, Moreh town is constantly facing a number of political and economic unrest making the region prone to constant economic blockade, bandhs and other strikes which thereby cause great disturbances for effective and smooth functioning of the business and trade activities.

i. Village Private practitioner at Chavangphai

There is a private practitioner at Chavangphai who had undertaken training from an MBBS doctor in his area. He would assist the doctor in treating the sick people. According to him there is so much of transition in the nature of sickness back then and now in the resettlement area. The mortality rate has also increased as compared to the village. The following narration by him substantiates his point:

Since the year 1984, I had started treating people. I was appointed the Village Health Guide. And since there was so much need for medical treatment and the lack of medical personnel to treat people in times of sickness, I had also undertaken two months training from an MBBS doctor in our area of how to treat and give first aid to patients. Unfortunately, the doctor was killed at Sung Thingkanphai a year before we moved out from our village. I used to purchase medicine from Imphal, bring the medicines to the village and give treatment to the patients. One can see the transition in the nature of sickness back then and now. In our previous village, the air was cleaner, we enjoyed cold climatic condition, the food and water we ate and drank were fresh and clean, even the vegetables grown were organic without any chemical fertilizers. Due to all these favourable conditions, the health condition of the people seems preferably

much better in the previous village as compared to now. Earlier, most of the ill health would be related to overwork in the field or other strenuous labour, thereby mostly joint pains and muscle pains were the common health complains. Other common ailments or sickness were fever, malaria and a kind of illness called 'bon san lap', which means during the rainy season, the river water on the first rainy day carries along with it a kind of mud which can cause a number of ill health. This type of illness is also known as 'Kol lang che hat nat'. 'Kol' meaning Burma and 'lang che hat' meaning 'going often' which is referred to that illness which one contract from going to the border area of Burma often. However, in this new settlement area, many kinds of new ailments are being complained. It could be due to hot humid climatic condition as compared to cold climate which they enjoyed back then, unhygienic living conditions, change in food and water conditions, and changing lifestyles as well. The mortality rate was very low then in the old settlement area. There were times when there would be absence of any deaths in the village for two or three consecutive years.

b) Healthcare at Gelnal

Gelnal is under the sub centre of Makui, a Naga village. The sub centre being located in a Naga village, the people from Gelnal mostly accessed health care from the PHC at Tujung Vaichong which is about five to six kilometres away. There is a paramedic from Tujung Vaichong whose service the people mostly avail in times of illness. The nearest health centre is the Primary Health Centre at Tujung Vaichong which is not functioning very efficiently and as such at most times the people travel to Kangpokpi which is about fifty kilometres away. The Community Health Centre and other private clinics are available in this town. In case of illness which requires surgeries, they head towards Imphal which is another 45 kilometres from Kangpokpi. The means of transport and communication is very poor in this village and as such the people face a lot of inconveniences. The mode of transport available in the village is a single passenger vehicle with a carrying capacity of about ten to fifteen people. However in most instances, it exceeds these numbers. The fare of the vehicle is usually between the range of sixty to seventy rupees. There is also a bus service that runs from Tamei, a neighbouring Naga village. The people need to save enough money and also find a place to put up during the duration of the treatment in case of travelling to Kangpokpi and Imphal for availing the healthcare services. And in most cases, when they are not able to meet the required amount for the treatment and other expenses, they comply with whatever health care that is available in the village and delay their visit to the bigger health centres until they procure enough savings to take them to towns.

i. Traditional health practitioner

At Gelnal village, there is a traditional healer who no longer practices the traditional method of healing after his conversion to the Christian faith. As mentioned earlier, this type of traditional healing involves performance of rituals and chanting of some magical words. He narrates:

Until I became a Christian, I treated patients in the traditional method called 'kithoi'.

This practice of treatment is conducted by feeling the pulse of the patient, and performing ‘phuisam’ which means chanting of magical words. All kinds of sickness and diseases were treated by kithoi. Even when someone gets injured and gets cuts, the bleeding can also be treated by the thempu. The thempu is consulted for all kinds of illness, however in cases where it could not be healed, we just have to bear the pain and some would even succumb to death. When I accepted the Christian faith, I just gave up the traditional way of treating patients. It was indeed hard to give up at the initial stage. Sometimes, when I began to say my prayers, the ‘doithu’ (magical words) would come into my mind and cause much distraction. Then, I would control and restrain my mind and rebuke the spirits not to ever appear again to me.

The healthcare services at Gelnal before and after the conflict is provided in the following table.

Table 10 Health care utilised at Gelnal

Healthcare services	Before the conflict		After the conflict	
	Frequency	Percent	Frequency	Percent
Government	Nil	Nil	7	14.0
Private	9	18.0	1	2.0
Both government and private	41	82.0	42	84.0
Total	50	100.0	50	100.0

Source: Fieldwork

c) Healthcare at Tujung Vaichong

There is a Primary Health Centre at Tujung Vaichong which is said to have been more efficient before the conflict as compared to after the conflict. The building reconstructed after the conflict remains deserted and not in use. The PHC that was not the main source of treatment even earlier fails to carry out its functions effectively. The people thereby rely on the paramedics and the privately run pharmacy in the village. If the illness continues or becomes serious they go Kangpokpi or Imphal. While only 8 percent reported use of only government services now, the majority use both public and private, which is a significant increase in use of government services.

Table 11 Healthcare utilised at Tujung Vaichong

Healthcare services	Before the conflict		After the conflict	
	Frequency	Percent	Frequency	Percent
Government	Nil	Nil	4	8.0
Private	18	36.0	Nil	Nil
Both government and private	32	64.0	46	92.0
Total	50	100.0	50	100.0

Source: Fieldwork

i. Private practitioner at Tujang Vaichong

The following is a narration of a birth attendant at Tujang Vaichong who had undertaken a mid wifery training in the year 1957.

The common diseases that I treated during those days were mainly children related disease (neovei), fever (khosih), delivery cases (naonei), diarrhoea (ehkho) etc. I myself have also trained two women in the area who are also now helping in delivery cases. I use to order and receive supply of medicines from Imphal. There were few self-styled practitioners in the area who would give injections to patients. However, in most cases, it caused more harm than bringing cure. The injection spots are usually left with wounds. Many times I was called to treat such wounds. Before the conflict erupted I use to go to some Naga villages as well. However, such visits reduced after the outbreak. Moreover, since the year 2000 after undergoing multiple operations, I no longer found myself fit to move around to treat people. In our times, there were very few trained nurses or other skilled health practitioners. The main problem was the lack of effective transport and communication system. During serious cases, the people had to face so many problems. There are cases which I could not handle so I referred them to go to Kangpokpi where there are bigger health centres. However, due to the bad transportation, many patients faced much difficulty and inconveniences. Vehicles had reached our villages since the time I joined my training. However, such vehicles belonged to some businessmen and these vehicles ply very rarely as they do not take frequent business trips. Only a few lucky ones would manage to get space inside the vehicles. Transportation has now improved considerably which has made possible the easy access of health care in nearby towns.⁹

c) Utilization of Integrated Child Development Services

The utilisation of the ICDS scheme is found to be very minimal in the three villages. In Chavangphai there are two Anganwadi centres in the village. However, the effectiveness of the two centres was found to be very minimal. The main service that is provided in the ICDS programme in Chavangphai is the distribution of supplementary food. The anganwadi workers provide cooked food to the children from time to time depending on the availability of the food supplies, though there is no such particular time schedule when this service is provided. Growth monitoring, immunization, health check-ups and education programme are not carried out.

There are two Anganwadi workers at Gelnal village. One Anganwadi worker stated that along with the ASHA in the village, the Anganwadi workers provide services like supplementary nutrition to children from six months to six years children, pregnant and lactating mothers; immunisation to women and children; non-formal pre-school education to 3 – 6 years children. The main problem that they face is the lack of supplies due to poor transport system in the area. The ASHA worker at Gelnal states that she carries out child delivery in and around the village. Prior to becoming an ASHA she was also a traditional birth attendant who inherited skills from her father. She conducts immunisation services, takes malaria slides, checks blood pressures and keeps the

records of weight. She also provides medicines like iron tablets, vitamins, glucose and other medicines to treat common ailments. She states that there are around seven children who are physically disabled with difficulty in walking and the people have a misconception that it is due to the medicines that are given to the children that they have developed such disabilities. There are two anganwadi workers and two ASHA workers in Tujang Vaichong village. They mostly carry out the supplementary feeding while the other services like growth monitoring, immunization and health check-ups are carried out by the ASHA workers. Weighing of children is carried out by the ASHA workers.

Conclusion

This paper presents an understanding of the varying determinants of health such as the pattern of food habits, the quantity and the quality of food along with the findings of the health indicators such as the height, weight, BMI and mortality rates (within the last five years) in the three study areas.

The consumption pattern in all the areas studied are subjected to availability and linked with their economic condition. In regard to food pattern, the food items which are mostly used in Chavangphai are rice, lentils, vegetables and non-vegetables which are all mostly bought from the markets. Eggs are rarely consumed regularly and regarded to be special food item which is usually given to the sick or unwell persons. Rice usually stored in a granary is now bought from the market on a weekly or daily basis. Access to varieties of food is now found to be quite limited to purchasing power now. In Gelnal village, as discussed in the preceding chapters, vegetables of all kinds are grown both in the kitchen garden and also in the agricultural farms. The most common types of vegetables which are procured in this village are potatoes, cabbage, mustard leaves, pumpkin, yam, beans etc. However, non-vegetable items like meat and fish are scarce and are not widely found to be consumed due to scarcity. Milk and milk products are also found to be almost nil in their dietary habits.

The food items found in Tujang Vaichong are also found to be similar with those of Gelnal. However, there is more use of non-vegetable items like meat and fish in the former. One reason for this could be that the place serves as a weekly market place for the region which is opened every Saturday. Thereby all kinds of food items are brought to this place for sale. The frequency of food intake is found to be almost the same in all the three study sites. The average food intake is about two to three meals in a day. The main meal is taken twice in a day, one in the morning and one in the evening. In between the meals, tea along with some snacks is taken depending on the availability and affordability of the household. Usually those who go to the agricultural field take with them meal which is called *sun-an* in the local dialect.

However, food intakes are better in terms of quantity and diversity in Gelnal and Tujang Vaichong. Anthropometry shows the impact of this, with Chavangphai having the poorest indices. Mortality differences show the highest death rate in the past five years in Chavangphai with Gelnal next and Tujang Vaichong with the least.

The health indicators such as height, weight, BMI and death rate within the last five years indicates that Chavangphai which is the settlement site of the displaced population show the lowest health indicators.

Higher proportion of under-nutrition in the displaced settlement area with the determinants of standard of living, main occupation, household assets, income, educational profile, food habits and food sufficiency in the villages indicate that these variables may have a strong influence to determine the nutritional of the population. In other words, socio-economic profile which determines access to all these resources that are determinants of the nutritional status has a profound bearing. The proportion of underweight and stunted children is found to be higher in Chavangphai which also shows the least number of possession of land among the three study areas.

The people at Chavangphai perceived that there was less prevalence of disease in their old villages in spite of the poor health care services. Although exposed to better accessibility and availability of health care facilities in the new settlement area, they perceived that they were also exposed to many new diseases which were never known earlier. With regard to the epidemics, the people felt that infectious diseases broke out during the epidemics due to poor living conditions, lack of basic amenities and insufficient nutrition.

While for the people of Gelnal and Tujang Vaichong, the transport facilities have greatly improved after the conflict, with more passenger vehicles plying through their villages and from their villages as well. As such, they can now make frequent visits to the Community Health Centre at Kangpokpi. In the present day, the Kukis from this area generally seek health care directly from the CHC, since the sub-centre and the PHC in the area are dysfunctional. Overall, the peoples' perception of the government health care are unavailability of facility, long distance to travel, an inadequate infrastructure, unavailability of doctor or nurses most of the time, health personnel often absent, poor quality of care, unavailability of drugs and other equipments etc.

In the case of Chavangphai, before the conflict there was no health centre facility available nearby. Long distances to the nearest health centre was worsened by the absence of proper means of transport and communication facilities. However, after their resettlement in the new place, there is an easier accessibility to the healthcare facilities as compared to the earlier villages. However for treatment of major illness, one has to rush to Imphal which is about 75 kilometres from Chavangphai, as the facilities in the PHCs and the Moreh hospitals are inadequate. The healthcare in Moreh as perceived by the people is inefficient for major illnesses due to the unavailability of sufficient health personnel, poor quality of care, unavailability of drugs and other equipments.

The two villages of Tujang Vaichong and Gelnal altogether present similar picture in terms of health care services. There is inadequate infrastructure, unavailability of doctors and nurses, health personnel who are posted are often absent, long distance travel from the PHC to the next nearest CHC or hospital. The aftermath of conflict witnessed a worse scenario with the deterioration of the primary health centre. After the conflict, the improved means of transport and communication facilities

enable the people to get better access to the healthcare facilities at CHC which is about 40 kilometres away from the village or to some other bigger hospitals at Imphal, the capital city.

Notes

¹ Record file of the Chief of Gelnal, accessed on July,2010

² Ibid

³ Record file of the Chief of Gelnal, accessed on July,2010

⁴ *Sa* means animal and *ai* is usually translated as ‘subjugation’, thereby denoting a ritual of subjugating or having complete dominance over the animals killed. This ritual is performed by man. For man it is his duty to hunt games and provide sufficient meat for family members, and also provide occasional feasting for the villagers.

⁵ In the same manner, *Chang* (paddy) *ai* is seen as victory over the soul of paddy. This ritual is to be performed by woman. Woman is held responsible for procuring abundant grain for the family. So when surplus grain is accumulated for several consecutive years she is considered fulfilling her duty, thus entitled to perform *Chang-ai*.

⁶ District Level Household Survey.

⁷ Mr. Misao, Chavangphai village, Interviewed on 14th June, 2010

⁸ Mr. Khongsai, Traditional healer at Gelnal village, interviewed on 24th July, 2010

⁹ Mrs. Heshi, Tujang Vaichong village, interviewed on 8th Jan,2011

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