# CHAPTER II

## BACKGROUND

### The Hill Tribes in Northern Thailand.

1. The origin.

The western and northern regions of Thailand are geographically mountainous area. Scattered widely in this area are small communities of multiethnic group of people. They constitute a minority groups commonly known as the hill tribes. Some tribes such as Karen, Lua and Khamu migrated in to the northern region of Thailand for many centuries. They established their communities in the valley and the low land area. About seven centuries ago the northern Thai people (Low land people, Kon Muang) moved into this area and established their Lanna Kingdom. The hill tribal people were driven up into the foot hill and higher up land. Nowadays, some of these tribes live in close proximity of the rural northern Thai and have assimilated their culture and integrated with the main northern population. However, the majority remain settled in isolation in extremely remote area within the rugged mountain terrain. Historically these tribes neither cultivate opium poppy nor know of opium use.

About a century ago, there were another waves of migration of highlander from china and Myanmar into this mountain area. They are the Hmong (Meo), Lisu, Lahu, Akha and Yao (Mien). These tribes

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are nomadic and prefer to live in high attitude above 1,000 meters. They traditionally either cultivate opium poppy or use opium. To inhabit in the same mountain area, the social and economic interaction between the early and late migrants has induced the spread of opium poppy cultivation, opium use and opium dependence to all tribes (Suwanwela et al., 1978; Suwanwela and Poshyachinda, 1980). The opium poppy cultivated area especially in the upper provinces; Chiangmai, Mae Hong Son, Chiangrai is known to be the part of the Golden Triangle which is one of the major opium producing areas in the world. Most of the opium and its derivatives, morphine and heroin from this area are transported in the traffic routes to all part of the world and lead to the global drug dependence problem meanwhile the remainder is consumed by the local hill tribe people (Suwanwela, 1978; Suwanwela et al.,1978).

2. Population.

According to the statistical report on September 1989, the hill tribal population is 563,495, including 9 hill tribes : Karen, Hmong, Lahu, Lisu, Yao, Akha, Lua, H'tin and Khamu. These people are resident in 20 provinces; 14 in the northern region, 5 in the central and only 1 in the northeastern (Ministry of Interior, Department of Public Welfare, Tribal Research Institute, 1989). This population data are shown in Table 1.

For all 20 provinces, the population is distributed over 96 districts for 3,492 hamlets and 96,766 households (Ministry of Interior, Department of Public Welfare, Tribal Research Institute, 1987). The provinces with the highest population are Chiangmai (25.62 percent of the total population), followed by Chiangrai

(17.42 percent) and Mae Hong Son (15.28 percent) respectively (Table 2).

Of the total population, 64.45 percent are 14 years of age or older and 56.1 percent were female. The annual population increase rate is 3.62 percent (Ministry of Education, Offices of Special Activities, Task Forces on Hill Tribes & Minority Groups in Northern Thailand, 1987).

**Table 1** Hill tribal population in Thailand.

| Region/ Province | Karen | Hmong | Lahu | Lisu | Yao | Akha | Lua | H'tin | Khamu | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| <u>Northern region</u> | | | | | | | | | | |
| Chiangmai | 89,111 | 15,085 | 23,398 | 9,770 | 1,225 | 2,200 | 3,537 | - | - | 144,326 |
| Chiangrai | 5,483 | 13,171 | 28,832 | 8,119 | 10,644 | 28,807 | 1,358 | - | 1,691 | 98,105 |
| Mae Hong Son | 70,080 | 2,636 | 5,026 | 4,415 | - | - | 3,883 | - | - | 86,040 |
| Tak | 49,818 | 14,857 | 2,298 | 1,098 | 635 | 563 | - | - | - | 69,269 |
| Nan | - | 13,528 | 67 | - | 7,832 | - | - | 28,516 | 5,135 | 55,078 |
| Lamphun | 21,672 | - | - | - | - | - | - | - | - | 21,672 |
| Phayao | - | 5,050 | - | 161 | 7,052 | - | - | - | - | 12,263 |
| Kamphaengphet | 874 | 3,116 | 775 | 830 | 3,487 | 4 | - | - | - | 9,086 |
| Lampang | 3,351 | 886 | 426 | 28 | 4,022 | 771 | 2 | - | 140 | 9,566 |
| Phrae | 7,720 | 1,406 | - | - | - | 252 | - | - | - | 9,378 |
| Phetchaburi | 3,003 | - | - | - | - | - | - | - | - | 3,003 |
| Phitsanulok | - | 5,240 | - | - | - | - | - | - | - | 5,240 |
| Sukhothai | 592 | 689 | - | 259 | 1,211 | - | - | - | - | 2,751 |
| Uthai Thani | 2,036 | - | - | - | - | - | 101 | - | 318 | 2,455 |
| <u>Central region</u> | | | | | | | | | | |
| Kanchanaburi | 18,358 | - | - | - | - | - | - | - | - | 18,358 |
| Ratchaburi | 5,849 | - | - | - | - | - | - | - | - | 5,849 |
| Phetchaburi | 7,899 | - | 406 | - | - | - | - | - | - | 8,305 |
| Suphanburi | 1,157 | - | - | - | - | - | 135 | - | - | 1,292 |
| Prachuab Khiri Khan | 748 | - | - | - | - | - | - | - | - | 748 |
| <u>Northeastern region</u> | | | | | | | | | | |
| Loei | - | 494 | - | - | - | - | - | - | - | 494 |
| Total | 279,852 | 84,057 | 60,822 | 25,086 | 36,108 | 32,537 | 9,016 | 28,516 | 7,284 | 563,748 |

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Eventhough the population size of hill tribal people is not terribly large in comparison with the National population, but there are a number of problems related to them, such as national security, destruction of forest and water resources, opium cultivation, opium use and dependence (Buruspat, 1983; Thongrom, 1983).

**Table 2** Hill tribal population is Chiangmai, Chiangrai and Mae Hong Son provinces.

| Province | Karen % | Hmong % | Lahu % | Lisu % | Yao % | Akha % | Lua % | H'tin % | Khamu % | All tribes % |
|---|---|---|---|---|---|---|---|---|---|---|
| Chiangmai | 31.84 | 17.95 | 38.47 | 38.95 | 3.40 | 6.76 | 39.23 | - | - | 25.62 |
| Chiangrai | 1.96 | 15.67 | 47.40 | 32.36 | 29.48 | 88.54 | 15.06 | - | 23.22 | 17.42 |
| Mae Hong Son | 25.04 | 3.14 | 8.26 | 17.60 | - | - | 43.07 | - | - | 15.28 |
| Sub total of 3 provinces | 58.84 | 36.76 | 94.13 | 88.91 | 32.48 | 95.21 | 97.36 | - | 23.22 | 58.32 |

**Table 3** Hill Tribal Village, Household, Population summary in Thailand.

| Tribe | Village | Household | Population | Percentage |
|---|---|---|---|---|
| Karen | 2,124 | 52,910 | 279,852 | 49.68 |
| Hmong | 235 | 10,479 | 84,057 | 14.92 |
| Lahu | 400 | 11,204 | 60,822 | 10.80 |
| Lisu | 128 | 4,091 | 25,086 | 4.45 |
| Yao | 180 | 4,782 | 36,108 | 6.41 |
| Akha | 195 | 5,600 | 32,537 | 5.78 |
| Lua | 49 | 1,626 | 9,016 | 1.60 |
| H'tin | 146 | 4,800 | 28,516 | 5.06 |
| Khamu | 35 | 1,274 | 7,284 | 1.29 |
| Total | 3,492 | 96,766 | 563,278 | 100.00 |

The most populous tribe is the Karen with 49.68 percent of the total hill tribal population, followed by the H'mong (14.92 percent), Lahu (10.80 percent), Yao (6.41 percent), Akha (5.78 percent), and Lisu (4.45 percent) consecutively. The six tribes all together constitute 92.04 percent of the total population (Table 3).

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Apart from having the largest population of the hill tribes, Chiangmai also has the largest population of the Karen. The household per village are small in every tribes especially the Karen and the Akha, with the exception of the Lua (Table 4).

**Table 4** Hill tribal village, household and population in Chiangmai Province classified by tribes.

| | Karen | Hmong | Lahu | Lisu | Yao | Akha | Lua | Total |
|---|---|---|---|---|---|---|---|---|
| Village | 733 | 67 | 163 | 57 | 7 | 22 | 18 | 3,492 |
| Household | 16,102 | 1,635 | 4,195 | 1,610 | 164 | 395 | 671 | 96,766 |
| Population | 89,111 | 15,085 | 23,398 | 9,770 | 1,225 | 2,200 | 3,537 | 563,278 |
| Population/Village | 121.57 | 225.15 | 143.55 | 171.40 | 175.00 | 100.00 | 196.50 | 161.30 |
| Population/Household | 5.53 | 9.23 | 5.58 | 6.07 | 7.47 | 5.57 | 5.27 | 5.82 |
| Household/village | 21.97 | 24.40 | 25.74 | 28.25 | 23.43 | 17.95 | 37.28 | 27.71 |

The office of special activities, Ministry of Education surveyed the hill tribes in Northern Thailand and reported in 1987 that 45.37 percent of the tribal people were Buddhist, 36.85 percent Animist, 14.75 percent Christian and 0.38 percent Muslim (Ministry of Education, Office of special activities, Task Forces on Hill tribes & Minority Groups, 1987). The report also stated that there are only 621 primary schools or approximately 1 for each 3.5 villages. These school have a student population of 55,969 or 42 percent of the school age population. Less than the primary school, Preschool centers number only 88, about 4 percent of the total number of villages. The Department of Nonformal Education provides child and adult education programs in additional 439 villages (20 percent). All of these have contributed to the following literacy skills among the hill tribes:

- fluent in listening, speaking, reading and writing 15.45 percent.

- fluent in listening, speaking and reading 10.37 percent.

and - some fluency in listening and speaking 31.83 percent.

3. Socioeconomic background.

The hill tribes live in small villages, scattered throughout the mountain ranges and valleys. Each tribes have different languages, customs, beliefs and ways of living (Buruspat, 1975). Most are agriculturist and rice is the most important staple food and is grown in every village whether in dry field of flooded paddy fields. Rice is for local consumption and also be exchange for other commodities (Siripool, 1983). For the Hmong, rice production is not enough for their own consumption and they have to buy rice form the Lua or the Karen who occupies the lower altitude and use the better yielding wet terrace rice field Some of the tribes grow opium poppy as the source of cash income which is used to buy supplementary rice and other commodities (Suwanwela et al., 1978). Maize is grown as a supplementary crop to feed pigs, distill whiskey and mix with rice to eat when rice become short. Other complementary crops such as chilies, potatoes, bean, tobacco, cotton, melons and vegetables are also grown but mainly for household consumption the excess of which can be sold to other villages or to the low land market. They usually keep their livestock such as cows, pigs, chicken and horses. Pigs and chickens are used mainly for spirit sacrifice as well as for food (Siripool, 1983).

Children contributed to the economy of household as labour force. Older children helped in the farm and young ones took care of younger brothers and sisters. The social custom of extended

family helps provide the required labbur force which create the wealthy households. These households usually have large farm, and therefore, they had reserve against unpredictable situation such as crop failure (Suwanwela et al., 1980b, 1980c).

Nature has much effect on the hill tribal economy. Their farm production depends on the climate and rainfall patterns. In some years, their production is not enough for their living. In certain years, the epidemic diseases occurred which damage their livestock (Suwanwela et al., 1978).

In general, most of the hill tribes are poor with very low income. The survey in 1987 of the Hill Tribe Development Division, Department of Public Welfare, Ministry of Interior, among the hill tribes in 16 provinces reported the average annual income per household was 14,191.40 baht and the income per person was 2,515.80 baht. The major source of income was from agriculture (58.36 percent) followed by income from livestock (25.07 percent) (Ministry of Interior, Department of Public Welfare, Tribal Research Institute, 1987).

4. Health problem

During 1977-1978, the Institute of Health Research, Chulalongkorn University made a health survey at seven villages of the Hmong, Karen, Lahu and Lisu. From the health survey, the health problems in these villages in general were not much different from remote villages in other parts of the undeveloped area, that is high birth rate, high infant mortality rate, poor hygiene and sanitation, malnutrition, parasitic infestation and prevalent communicable

disease. The endemic diseases were goiter, opium dependence and for some villages, malaria (Suwanwela, 1978; Suwanwela et al., 1978). The rate of opium dependence among the hill tribes varies from 6.6 to 16.8 percent of the population above 10 years of age. The disease such as upper respiratory tract infections and gastrointestinal disorders among the hill tribes are frequently the result of poor general health, nutrition or hygiene (Suwanwela et al., 1980b). The study of Drug Dependence Treatment Research Center, Institute of Health Research, Chulalongkorn University, among hill tribe community between 1981-1983 includes each of 2 villages of the Karen and the Hmong at Mae Cham district, Chiangmai province. Mild anemia with haemoglobin below 10 mg. was common among the children. The prevalence of angular stomatitis varied between 5-30 percent and 2-10 percent among children and adult respectively. Parasitic infestation was highly common particularly among the Karen, round worm infestation was the most common parasite found. The prevailing type of disease which required curative service were diarrhoea, common cold, bronchitis and pneumonia. Diarrhoea and pneumonia were the principle causes of death. Death from diarrhoea, suicide and malnutrition confined to the Karen while those from pneumonia occurred only in children especially among the Hmong. All the pneumonia cases occurred between August and October. Traditionally the Hmong commonly carries their young children with them to work in the field while the Karen leaves their at home (Chulalongkorn University, Institute of Health Research, 1984).

Since 1977, The Ministry of Public Health had laid out the Health Development Plan under the IV National Economic and Social

Development Plan, B.E. 2520 - 2524 (1977 - 1981). The policy of the Ministry was to extend the health services into the hill tribal communities. It was only the early health development phase so there were no clear models of the optimal health service. The activities were carried out only to train the basic health care and to supply the medicine and medical equipment to the mobile hill tribal development teams of the Public Welfare Department .

The health development model seemed to be clearer in the V National Economic and Social Development Plan, B.E. 2525 - 2529 (1982 -1986). The Health Services for National Security Project was laid out for the hill tribal communities. In the early phase of the V National Plan, there was a research project searching for the appropriate health services model for hill tribal people in Mae-Cham District, Chiangmai Province. This research project was supported by United Nations Fund for People Activities (UNFPA) and aimed to establish and indigenous hill tribe health care system and develop an appropriate low cost comprehensive health and family planning programme. After the project was evaluated as successful, the Ministry expanded this model to another 5 northern provinces; Tak, Chiangrai, Mae Hong Son, Phayao and Lampang in the late period of the V National Plan.

At present, the VI National Economic and Social Development Plan, B.E. 2530 - 2534 (1987 - 1991), the Ministry of Public Health adapted the Health Development Plan and gave the policy to fight against the 4 major health problems of the hill tribal communities (Ministry of Public Health, Office of the Permanent Secretary, Hill Tribe Health Development Center, 1987a, 1987b) as follows:

1. Opium use and dependence.

2. Maternal and child health.

3. Malnutrition.

4. Communicable diseases.

4.1 Opium use and dependence. Apart from being the principal cash crop in the opium poppy cultivation area. Opium is widely used by all tribes as medicine. Although most of the people know the harmful effect of opium, but there is a real need for opium as medicine to suppress many symptoms of physical illnesses as well as psychological stresses. Also, the lack of appropriate health care services has forced the hill tribes to use opium as medicine and depend upon it (Suwanwela, 1976). The euphoric effect of opium is also well known for suppression of psychological stresses of depression as well as for recreational purpose. These main reasons bring about opium dependence in most communities. Prevalence among the Karen, Akha and Lahu are usually higher than other tribes (Suwanwela, 1976; Suwanwela and Poshyachinda, 1980a). The Northern Drug Dependence Treatment Center indicated that in the year 1989, the percent of each tribe seeking treatment from the center was 29.8 for the Karen, followed by the Lahu (21.4 percent), Hmong (19.5 percent), Akha (10.9 percent), Lisu (8.1 percent), Lua (2.1 percent) and Yao (0.8 percent) respectively (Ministry of Public Health, Department of Medical Services, Northern Drug Dependence Treatment Center, 1989).

Incidence of opium dependence varies widely. In opium poppy cultivating area the prevalence of opium dependence is certainly high. In some hamlets, as much as 25-30 percent of the villagers

are opium dependents. Nevertheless, most communities do not have the rate of opium dependence higher than 10 percent (Ministry of Public Health, Department of Medical Services, Northern Drug Dependence Treatment Center, 1986).

Differences among the tribes related to the causes of their use and dependence. For the Hmong tribe who had grown opium poppy for generations, there was a rather strong cultural rejection against opium use. The Hmong have a rather rigid custom of not allowing children to use alcohol, tobacco or opium until they are over ten years old. Opium smoking is acceptable only for treatment of physical illnesses such as pain, fever, cough and diarrhoea. The majority of opium dependent persons in Hmong villages are, therefore, the consequence of self medication for chronic illnesses such as pulmonary tuberculosis, peptic ulcer, urinary stone and injuries.

In contrast, the Karen tribe had no cultural taboos against opium use. Opium was unknown until the immigration of poppy growers into the same mountainous area less than a hundred years ago. Tobacco smoking is acceptable even for six or seven year-old girls. By the age of 10 or 12, most girls have their own tobacco pipe. Opium smoking as a medicine is wide spread as well as its use for social and recreational purposes. The poverty among the Karen related to the reasons for opium use, namely physical illnesses, poor health, overwork and psychological stress. The mild attitude towards tobacco and opium uses together with the availability of opium in the society led to the high rate of opium dependence among the Karen which in turn aggravate the poverty (Suwanwela and

Poshyachinda, 1980a; Suwanwela et al.,1980b).

During the last two decades, the Golden Triangle area has become the seat of heroin production. The illegal production of heroin and trade had brought about the contact of heroin with the hill tribes in some area. About 10 years ago, few heroin dependence emerged in some hill tribal hamlets. In 1976 and 1977 the hill tribal heroin dependence in the Narcotic Treatment Center for hill tribes (the Northern Drug Dependence Treatment Center at present) was 8 cases among the total number of treated addicts of 1,382 (Suwanwela et al., 1979), the percentage of heroin hill tribal dependent is below 1 percent. In 1989, the same treatment center reported that the percent of treated addict who were opium dependent was 52.4 percent and 8.0 percent were hill tribal heroin dependent (Ministry of Public Health, Department of Medical Services, Northern Drug Dependence Treatment Center, 1989). In some hamlets the known cases of heroin dependents has increased to more than 50. Most of the heroin dependents were previous opium addicts (Visudhimark, 1987).

**Table 5** Opium cultivating area and opium production.
Source : Office of Narcotic Control Board,
Office of the Prime Minister.

| Year | Area (rai) | Product(kilogram) |
|---|---|---|
| 1983/1984 | 43,333 | 35,950 |
| 1984/1985 | 54,853.82 | 34,674.88 |
| 1985/1986 | 25,790.38 | 25,896.32 |
| 1986/1987 | 23,472.76 | 24,291.42 |
| 1987/1988 | 28,443 | 27,191.3 |

The effective control of opium (Table 5) without solving the underlying causes of opium use is the major cause forcing some

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hill tribal opium dependents to switch from opium to heroin (Ministry of Public Health, Department of Medical Services, Northern Drug Dependence Treatment Center, 1986).

4.2 Maternal and Child health. In 1986, the Family Planning Center for Northern Region, Department of Health, Ministry of Public Health reported that the population growth rate of the hill tribes varied from -1.1 to 4.3 (Ministry of Interior, Department of Public welfare, Tribal Research Institute, 1987; Ministry of Education, Office of Special Activities, Task Forces on Hill Tribes & Minority Groups, 1987), as shown in Table 6.

**Table 6** Birth rate, death rate and growth rate by tribes among 7 tribes in Northern Thailand in 1986.

| Tribe | Birth rate/1000 | Death rate/1000 | Growth rate/100 |
|---|---|---|---|
| Hmong | 66 | 23 | 4.3 |
| Akha | 53 | 22 | 3.1 |
| Yao | 56 | 21 | 3.0 |
| Khamu | 48 | 21 | 2.7 |
| Lua | 42 | 17 | 2.5 |
| Karen | 40 | 21 | 2.4 |
| H'tin | 10 | 21 | -1.1 |

This statistical report showed that the tribal birth rate varied from 10-66 per thousand and the death rate varied from 17-23 per thousand. Hmong had either highest birth rate of 66 or highest death rate of 23. It is interesting to note that while the Hmong has a very high birth/death ratio of 66/23 and the Karen a low ratio of 40/21, the H'tin has a negative ratio of 10/21, suggesting that the H'tin appears to be dying out.

The population growth rate of the hill tribes is fairly high because of various reasons (Tasanapradit, Pernparn and Poshyachinda,

1986) such as:

- The need of labour forces : Agriculture is the staple work of the hill tribes. To earn enough livings the villagers have to produce various kind of rices for consumption. In the remote area without outside communication, the need of consumed rice is higher because of they cannot bring any other rice or food from the outside. Labour is the staple force for Agriculture. No labour saving devices, limited rice field area and limited water resources make most hill tribal people grow rice either in dry fields and in flooded paddy fields. In some villages, the hill tribes have to go various places for rice grown. The limitation of nature and lack of agricultural technology lead low rice production rate. All of these factors are the reasons contribute to the need for labour forces among the hill tribes.

- Lack of health knowledge and health services: as mentioned before, most hill tribes are in remote area where they hardly communicate with the outside. They still have the traditional belief on health and disease. Most believe that the diseases occur by influence of the spirit. They know very little about the health care and disease prevention which contributes to their poor hygiene and low resistance. The lack of health care services for prevention of infectious diseases and promotion of the immunization among the infant and children leads to high death rates especially among the infant which is reflected in the unacceptability of the family planning.

The need of labour forces drives most of the hill tribes to wish for many children and early marriage. The lack of health care

services makes the infant mortality rate very high. The situation complement with the need of labour force is stimulating the desire for children. The hill tribal communities commonly do not practice family planning.

The Ministry of Public Health reported in 1987 that the infant mortality in the hill tribes was 73.3-90.2 per thousand, growth rate 2.5-4.6 percent and the family planning could cover only 10-40 percent of the married fertile hill tribal women (Ministry of Public Health, Office of the Permanent Secretary, Hill Tribe Health Development Center, 1987a, 1987b).

4.3 Malnutrition. Rice production and other food supplements in most of the hill tribal communities are not enough for consumption. In some remote areas there is hardly any communication with the outside, transportation of food is too difficult. All of these result in the limitation of food which gives rise to malnutrition. Poor hygiene and the parasite infestation are also the factors associated with malnutrition. This dietetic problem occurs in mothers who practice breast feeding resulting in the dietetic problems among the children (Ministry of Public health, Office of the Permanent Secretary, Hill Tribe Health Development Center, 1987a, 1987b).

4.4 Communicable diseases. Among all infectious and communicable diseases, the diseases of the upper respiratory and digestive tract are the most common among the hill tribes. There are various symptoms and signs of these diseases; such as cough, low grade fever, common cold, stomachache and diarrhoea etc. These

illnesses appear to the villagers almost everyday and are seen to be the ordinary matter in daily life. Many factors are caused of these diseases (Ministry of Public Health, Office of the Permanent Secretary, Hill Tribe Health Development Center, 1987a, 1987b) such as:

- Living in the high altitude, the hill tribes expose to the wet and cold weather for a long time, especially in the long duration of rainy and cool season. The seasonal diseases like common cold, bronchitis and pneumonia, are widespread in this season. Sharing sleeping places together facilitates the spreading of the diseases.

- The lack of clean water and toilet.

and - The sanitation and poor hygiene.

Between January and November 1988, the village health volunteers under the supervision of the Institute of Health Research, Chulalongkorn University, provided health services to 7 Karen villages of Mae La valley, Mae Na Jarng subdistrict, Mae La Noi district, Mae Hong Son province and 1 Hmong and 2 Karen villages of Mae Suk Valley of Baan Tub subdistrict, Mae Cham district, Chiangmai province. The majority of illnesses were divided into 3 groups; the general illnesses, the respiratory system illnesses and the gastrointestinal system illnesses. Gastrointestinal system illnesses were nearly as common as the respiratory system illnesses. Together the two illnesses constituted over 65 percent of the total illnesses. Common cold was the most common among the respiratory system illnesses while stomachache, diarrhoea and parasite was the most common illnesses among the gastrointestinal system illnesses.

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The Karen had more gastrointestinal disorders than the Hmong. Respiratory disorders were more common among the Hmong than the Karen (Chulalongkorn, University, Institute of Health Research, 1988). Most of the illnesses among the hill tribes have strong predisposing factors related to the sociocultural and economic conditions and natural environment (Chulalongkorn University, Institute of Health Research, 1984).

5. Traditional Treatment of illnesses.

The hill tribes live in remote areas which commonly lack modern health care services. Illnesses are believed to be induced by the wishes and acts of spirit and gods. Spiritual means are used to prevent and treat illnesses. Livestock are sacrificed to the spirits in order to retain or regain health. In the treatment of illnesses hill tribes also use herbs and animal parts-such as turtle shells and porcupine quills-as well as physical means-such as cupping and pressure (Suwanwela, 1978).

The traditional treatment of the Karen and the Hmong constitutes of 2 main approaches, spirit rite and herbal medicine. The spirit rite seems to be the psychological treatment and is effective in case of many illnesses which are self limiting. Some certain rites can prevent the spreading of the diseases. For example, the Karen prepares a special fence across all the path lead into their village to warn outsiders against going into their village during the outbreak of disease. The Karen traditional healer also treats chronic stomach pain with blessed water containing suspension of lime. For the Hmong tradition, after delivery of child for one month, the mother has to remain strictly

inside the house and eats one chicken daily. Visitors are generally not allow to go inside the house too.

The herbal medicine are used extensively among the Karen and the Hmong. Some of the herbs are found to contain pharmacological active ingredients and correctly applied by the tribes. They are the local resources which can make the community more self sufficient for medical supply. It is clearly applicable for many of common illnesses such as upset stomach, flatulence, and burn (Chulalongkorn University, Institute of Health Research, 1984).

Among the hill tribes, opium is known to be effective as medicine in relieving many illnesses such as pain, diarrhoea and cough. For adult, raw opium was smoked with a special pipe or incorporated into tobacco or made into pills and taken by mouth. For young children, puff of opium smoke was blown onto the mouth and nose by adult in order to treat childhood diarrhoea. Oral intake of opium could be dangerous because of the over dosage. In village survey, it was found that one case of mild diarrhoea died and the cause might be due to the fact that mother had given an overdose amount of opium to her child (Suwanwela and Dharmkrong-At, 1982).

Abdominal pain, headache and backache are among the reasons given for opium smoking. For acute illnesses which subside spontaneously, opium may be used once or a few times. For chronic illnesses such as peptic ulcer, pulmonary tuberculosis, injuries and urinary stones, opium is use over a long period and result in opium dependence (Suwanwela, 1976, 1978; Suwanwela et al.,1978, 1980a, 1980b; Suwanwela and Poshyachinda, 1980a, 1980b).

Several studies in the hill tribes villages reported that the main reason for opium use among the hill tribes is due to physical illnesses (Komkampan and Chaipikusit, 1972; Uneklabh, 1974; Suwanwela, 1978; Suwanwela et al., 1978, 1980a, 1980b; Suwanwela and Poshyachinda, 1980a, 1980b). Among 1,350 hill tribe patients who were admitted from 1 October 1976 to 31 December 1977, 62 percent gave the physical illnesses as their reason for addiction (Suwanwela et al.,1979).

Statistical reports from the hill tribal opium dependents who were admitted for treatment at the Northern Drug Dependence Treatment Center in the Fiscal year 1989 showed more than half of them, 60.3 percent gave the reason for using opium as medicine to treat physical illnesses leading to the problem of opium dependence. Among them, the Karen were the majority, followed by the Lahu, Hmong, Akha and Lisu consecutively (Ministry of Public Health, Department of Medical Services, Northern Drug dependence Treatment Center, 1989).

6. Health Services.

As in other rural low land communities, the hill tribes suffer from various health problems which cause the greatest drain on the resource and vitality of the community. Unfortunately most villagers accept these burdens as a normal state of life, unaware that their condition could be greatly improved if they merely pulled their community's resources and organized themselves with a practical strategy to attack and prevent these problems.

The Government has concentrated its efforts on establishing

a system of high quality, hospital based, western oriented medical care in the district area. Consequently, when a hill tribe becomes ill, he has the choice of several types of modern health care facilities and providers, in addition to the traditional ones. The problem with visiting the hospital is that the villagers often find himself in an unfamiliar or uncomfortable situation. Many health care providers have an urban orientation and do not properly communicate with the hill tribes. To avoid some of these unpleasant experiences, some hill tribes go directly to other health care services; ie. unlicensed injectionist and the local drug seller.

In order to bring basic health facilities closer to the hill tribal people, the development of health in hill tribe villages is a national policy under the responsibility of the Ministry of Public Health. The primary health care concepts have been use as the strategies for health development of the rural Thai people as well as the hill tribes since the IV National plan and in 1977, the health care services has been started providing to the hill tribe community.

In the Annual Conference on Hill Tribe Health Development in 1987, the Ministry of Public Health stated that the principle hill tribe problem were drug dependence, maternal and child health problems, malnutrition, and communicable diseases. To cope with that problems, the Ministry of Public Health have four strategies (Ministry of Public Health, Office of the Permanent Secretary, Hill Tribe Health Development Center, 1987a) as follow:

1. Develop the structure of health care delivery system.

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2. Develop the structure of primary health care and community organization.

3. Develop the administration system.

4. Recruit the available resources to develop the appropriate health technology.

The health care system for the hill tribal community is also a part of a National Primary Health Care System. Village volunteers are trained as health workers (VHV) and health communicators (VHC) deliver basic curative care, health education and preventive measures and sanitation development. The function is linked to the provincial health system through a supervisory network of monthly visit by community health workers (CHW) who in turn report to district health office (DHO). The community health worders are the literate villagers in that area. They have been trained in the six-months training course and sent back to be the supervisor of the village health volunteers and communicators. Their other works are to provide basic nursing care, to refer to the district health office, to stimulate the village of health promotion and to provide the health education.

The Government health service system is shown in Table 7.

**Table 7** Government health services system.

| Level | Health services |
|---|---|
| Province | Provincial hospital, Specialized hospital |
| District | Community hospital, District health office |
| Subdistrict | Health center |
| Hamlet cluster | Community health worker |
| Hamlet | Village health volunteer, Village health communicator |

When the tribal people gets some illness, he could go to the VHV's house for simple treatment. If the VHV cannot treat, the patient would be referred to the CHW's station if he lives in the main hamlet where the CHW's station is located. In the case that the patient lives in the satellite hamlet he would either be referred to the CHW's hamlet or wait for the visiting of the CHW who usually comes to the satellite villages once or twice a week. The CHW will provide the basic health care and report to the health center. Some diseases or illness may be too serious for the CHW to handle, he will consult the health personal from the health center, and the patient may be referred to the community hospital or to the provincial hospital depending upon the severity of the diseases.

In response to the Ministry of Public Health Policy, besides providing the curative service, the local government health services should also provide the maternal and child health care as well as family planning services to the hill tribe villagers.

This study is intended to provide the information about the pattern of health services utilization among the hill tribe villagers in the remote area and the factors affecting it. The result might be useful for the relevant authority in planning for intervention strategies for reducing the health problems.