The purpose of this article is to describe the ways and means by which the Tingyans, an ethnic minority in the highlands of the province of Abra, Philippines cope with the problems of disease.

The Tingyans inhabit the western slopes of the Cordillera Central and constitute the larger ethnic group in 16 of the 27 municipalities of the Province of Abra. They number about 55,000. Some live in the lowlands next to a much larger population of Ilocanos, but most of them live in the highlands.

The only two relatively large hospitals, one run by the government and the other by a Mission (Protestant) organization, are located in the capital city of Bangued. In the same city there is also a small private clinic. In the uplands there are two small hospitals, a twenty-bed hospital in Bucloc under the auspices of the government, and a twenty-five-bed hospital in Manabo managed by the Catholic Diocese of Abra. These facilities serve a population of over 150,000 people. In reality, though, for the majority of the people in the uplands it is economically and geographically impossible to travel to the lowlands in the absence of roads and proper transportation.

The quality of the service is also questionable, since the political, military and church personnel of the province regularly avail themselves of the services of more modern Manila facilities rather than risk their lives in some dingy local hospitals. Normally, at least, every municipality is supposed to enjoy the services of a dispensary or a Rural Health Unit with a team composed of a health inspector, a nurse and a midwife. The dispensaries though are often without medicines, and doctors appear very rarely; in some areas once every six years. Recently military (government) medical teams have visited the upland areas more often out of political competition with the medical services rendered by the New People’s Army personnel.

Various missionary organizations scattered throughout the mountains are also helping through the distribution of free medicines and
Table 1. Ten leading causes of morbidity for the years 1975–77, for the municipalities of Bucloc, Sallapadan, Daguioman and Boliney.

<table>
<thead>
<tr>
<th>Year</th>
<th>CASES</th>
<th>No.</th>
<th>CASES</th>
<th>No.</th>
<th>CASES</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>TB (clinical)</td>
<td>648</td>
<td>Cold Syndrome</td>
<td>595</td>
<td>Cold Syndrome</td>
<td>987</td>
</tr>
<tr>
<td>1976</td>
<td>Cold Syndrome</td>
<td>491</td>
<td>TB (clinical)</td>
<td>495</td>
<td>Hypovitaminosis</td>
<td>855</td>
</tr>
<tr>
<td>1977</td>
<td>Parasitism</td>
<td>469</td>
<td>Bronchitis</td>
<td>419</td>
<td>TB (clinical)</td>
<td>577</td>
</tr>
<tr>
<td>1978</td>
<td>Hypovitaminosis</td>
<td>459</td>
<td>Parasitism</td>
<td>341</td>
<td>Parasitism</td>
<td>409</td>
</tr>
<tr>
<td>1979</td>
<td>Bronchitis</td>
<td>360</td>
<td>Ileo-colitis</td>
<td>286</td>
<td>Ileo-colitis</td>
<td>402</td>
</tr>
<tr>
<td>1980</td>
<td>Arthritis</td>
<td>344</td>
<td>Arthritis</td>
<td>208</td>
<td>Bronchitis</td>
<td>398</td>
</tr>
<tr>
<td>1981</td>
<td>Ileo-colitis</td>
<td>315</td>
<td>Peptic ulcer</td>
<td>189</td>
<td>Peptic ulcer</td>
<td>291</td>
</tr>
<tr>
<td>1982</td>
<td>Peptic Ulcer</td>
<td>286</td>
<td>Influenza</td>
<td>146</td>
<td>Nephritis</td>
<td>202</td>
</tr>
<tr>
<td>1983</td>
<td>Nephritis</td>
<td>211</td>
<td>Nephritis</td>
<td>109</td>
<td>Arthritis</td>
<td>164</td>
</tr>
<tr>
<td>1984</td>
<td>Measles</td>
<td>103</td>
<td>Hypovitaminosis</td>
<td>95</td>
<td>Influenza</td>
<td>128</td>
</tr>
</tbody>
</table>

Table 2. Five major mortality causes during the years 1975-77 for the municipality of Bucloc alone.

<table>
<thead>
<tr>
<th>Year</th>
<th>CASES</th>
<th>No.</th>
<th>CASES</th>
<th>No.</th>
<th>CASES</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>Pneumonia</td>
<td>2</td>
<td>Pneumonia</td>
<td>2</td>
<td>Pneumonia</td>
<td>1</td>
</tr>
<tr>
<td>1976</td>
<td>TB</td>
<td>2</td>
<td>TB</td>
<td>2</td>
<td>Meningitis</td>
<td>1</td>
</tr>
<tr>
<td>1977</td>
<td>Gastroentiritis</td>
<td>1</td>
<td>Gastroenteritis</td>
<td>2</td>
<td>CVA</td>
<td>1</td>
</tr>
<tr>
<td>1978</td>
<td>CVA</td>
<td>1</td>
<td>CVA</td>
<td>1</td>
<td>Carcinoma (tongue)</td>
<td>1</td>
</tr>
<tr>
<td>1979</td>
<td>Cardinoma (tongue)</td>
<td>1</td>
<td>Cardinoma (bile duct)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

health information by paramedics and other types of trained personnel. The mission activity, at times, is hampered by the politico-military situation, and during the Marcos regime missionary medical care was often prohibited on the pretext that mission organizations were either receiving medicines from, or distributing them to the New People’s Army personnel and sympathizers.

Obviously, the cases shown in Tables 1 and 2 are only those reported to the Rural Health Unit. It must be borne in mind that the districts under consideration are in remote places, and the services rendered by other practitioners, such as herbalists, bonesetters, curers and shamans are logically not reported. Deaths occurring in these
places are also not reported, since the highland Tingyans generally do not consider it necessary to apply for a burial permit to bury their dead. Nevertheless these figures reveal a grim health picture.

In 1978 I obtained from a Mission nurse, Miss Bernardina Ferraren, statistics on the goiter situation covering the entire mountain Tingyan area of eleven municipalities or five parishes. (Table 3).

Table 3. Number of goiter cases in 5 parishes in the Tingyan mountain area according to sex and status.

<table>
<thead>
<tr>
<th>GOITER CASES</th>
<th>Married</th>
<th>Single</th>
<th>Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parishes</td>
<td>Population</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>Manobo</td>
<td>9,899</td>
<td>88</td>
<td>312</td>
</tr>
<tr>
<td>Sallapadan</td>
<td>7,525</td>
<td>54</td>
<td>109</td>
</tr>
<tr>
<td>Luba</td>
<td>8,742</td>
<td>119</td>
<td>452</td>
</tr>
<tr>
<td>Malibong</td>
<td>6,500</td>
<td>14</td>
<td>99</td>
</tr>
<tr>
<td>Lacub</td>
<td>7,553</td>
<td>12</td>
<td>83</td>
</tr>
<tr>
<td>Total</td>
<td>36,641</td>
<td>287</td>
<td>1,055</td>
</tr>
</tbody>
</table>

Miss Ferraren also indicated that among the goiter patients she found thirty-five individuals (twelve adults and twenty-three children) who were, in her opinion, mentally retarded.

The health picture we obtain from upland Abra is not different from that which was gathered by anthropologists throughout the islands, from R.F. Barton in 1906, to R. Rosaldo in 1974. We see a rich and active system of indigenous medical beliefs and practices. Disease is generally viewed as being caused by personalistic forces or entities and it is treated mainly through shamanistic practices and the use of an impressive variety of herbal remedies.

**METHODOLOGY OF THE STUDY**

For this part of the discussion I turn to an area which I know best and where I spent much of my Philippine experience: the upland municipalities of Licuan, Lacub and Tineg.

Licuan is populated by some fifty families, almost all of whom live in wooden houses with galvanized iron roofing. The houses are clustered in one place, surrounded by rice paddies on one side and walled in by high mountain ranges cut by the Malanas river. The town has a public elementary school and a sizable Catholic chapel. The school is run by Tingyan teachers, and except for two women,
one Visayan and one Ilocana, who intermarried with Tingyan men, the whole population belongs to the Binongan-speaking Tingyan subgroup.

Lacub, the next municipality is a five-hour hike and one mountain range away from Licuan. By Western standards, Lacub is more advanced compared to the other two municipalities of the district. This is, to a great extent, due to the continuous presence here of the Catholic Mission since 1940, when the parish was established. The town has a large, modern church building, an elementary and secondary school run by the Mission. There is also a municipal dispensary managed by a nurse and a sanitary inspector, both of whom are Tingyans. The town center is populated by about eighty households. The twelve neighboring villages located along the Binongan river are made up of approximately thirty households each. The population of this municipality speak two dialects: the Binongan on one side of the river and the Mabaca on the other.

Tineg, the farthest of the mountain municipalities in the northeastern corner of Abra, can be reached only after a ten-hour hike or an equally long horseback ride from Lacub, after climbing two mountain ranges. Tineg is situated at the foot of the Cordillera proper on the Tineg river, but some of its more distant dependencies are still two days away deep in the Cordillera itself. There are fifty-six households in the center of the municipality, which is called Agsimao. The dependent villages vary in the number of households from a minimum of ten to a maximum of twenty each. Agsimao has a complete public school, but no Mission buildings. The municipal mayor resides here, as does the district judge and a midwife. The people speak a dialect called Adasen, akin to that of the neighboring province of Apayao to the North.

It was not so difficult to collect field data. This was done mostly through the unstructured interviews, by observation, and at times by direct participation especially when I was sick myself. The people interviewed were the local leaders, the teachers, health personnel such as the sanitary inspectors, nurses and midwives, but above all the healers and the patients themselves. At times healers hesitated to share their knowledge or “secrets,” either for fear of losing their curing powers, or for fear of being laughed at by outsiders and by members of their own community, or due to their “acceptance” of a new belief system, that appeared in the area in 1915 and was finally firmly established in 1940.

On numerous occasions the information was collected through community sharing in the evening around the largest house yard of the village. Questions were asked, like: what are the common
diseases in this community; what are the causes; does anyone know persons who are particularly healthy; why they are healthy; what makes them so. In this fashion the community as a whole discussed, described and evaluated diseases, and treatment, health attitudes, food habits and practices. The comparison between traditional and scientific medical systems was almost always inevitable with each member eager to voice out personal opinions about the merits of one or the other of the two approaches.

PERSONALISTIC ETIOLOGIES

Ethel Nurge, discussing the medical beliefs and practices in a Philippine village in the islands of Leyte, says that “Spirit-gods, witches, and sorcerers are deemed responsible for most illnesses which are not natural.” The belief in supernatural spirits as causative agents of diseases or mishaps is just as strong among the Tingyans of Abra. The fact that they have been missionized for the last two generations has not altered this view. They have actually incorporated Christian prayers in their rituals to placate the supernaturals. Ina Mayan, a local healer of Lacub, now dead, used to recite the Apostles’ Creed while performing the daydaya, or offering to the spirits during the curing ritual.

Symptoms such as fever, fainting spells, inflammations, vomiting, bleeding and accidents are believed to be caused by spirits or by the souls of dead kindred. Diseases occur when the spirits are angered or when a person dies suddenly without having left any message to his family or without having paid all the debts contracted during his lifetime. These situations call for a curing ritual, with prayers, incantations and animal sacrifices.

In Licuan, the ceremonies to placate the spirits so that cure will be brought about is called sanga. In Lacub, it is called daydaya and in Tineg balabugo, dawak or buni. The spiritual beings are known as igganlangitan in all three municipalities.

In Licuan and Lacub, the ritual is similar and simpler compared to that of more remote Tineg. A pig is slaughtered on the spot where the mishap occurred or where the disease was contracted. The meat is boiled without spices or salt and offered just before mealtime on the house doorstep with the invitation: “Ingkay maggan daytoy naar-amid a kanen,” (do come and eat this food prepared for you) pronounced by the shaman. After an hour or two the offering is re-

moved and shared by the patient, the family, and all the attending visitors. If after some days, no cure is effected the patient may finally be transported to the lowlands to see a doctor at a hospital in Bangued. Almost always, when the patient reaches this stage he is beyond help. The disease has taken its course and the resistance of the patient is nil. The patient therefore, goes to the hospital “only to die” as the Tingyans say. It is at this point that the medical and nursing professions are regarded with resentment and mistrust which result in negative attitudes toward modern medical practices.

In Tineg, perhaps due to its remoteness and a lesser degree of acculturation, rituals tend to be much more elaborate. In an earlier article I have described a dawak, a curing ritual recorded in 1972 in the village Kugon of that same municipality.² It is interesting to notice that on that occasion the shaman did not really identify the type of sickness she was dealing with. She, and all present, were concerned with finding the cause and the proper remedy rather than the name of the disease. Nurge had similar experiences in Leyte when she explained that disease entities are of no interest to the villagers. It is the “unhappiness and a dis-ease which the patient brings to the specialist.”³

In Tineg the ritual often turns into a communal healing experience. The shaman at a certain point of the ceremony holds up a portion of the slaughtered animal, chanting and dancing around the ritual grounds. As the rhythm of the gongs fills the surroundings with spiritual intensity she begins to strike, rub, and touch all present with the sacrificial meat to take away whatever ailment they may have.

These types of rituals are relatively expensive, since they involve the procurement of enough rice, meat, and fermented sugar cane for the whole community and guests. Other rituals are more modest and celebrated in the intimacy of the household. These are mainly performed for the purpose of maintaining health and preventing disease. The tapu ritual, for example, consists in hanging long grass in one corner of the house to ward off malevolent spirits. I knew of a man who after converting to Christianity removed the protective grass. But as soon as he became ill, his relatives saw to it that the blessed devices were returned to the proper place. The tangali herb, soaked in coconut oil, is also kept ready in the house to cure sickness caused by witchcraft.

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In the village of Bacag, a dependency of Lacub, the local healer claims that certain plants send out a characteristic smell that is repugnant to evil spirits. Hunters see to it that they carry these with them when they go hunting in isolated areas where spirits are said to abound. The agilid bark when scraped also exudes an unpleasant smell and when rubbed on the sick person will cause the malevolent spirits to depart. The maluggunan condition or possession by the soul of a departed person is another ailment that can be cured by merely applying the guanaba leaves. The smell of the leaves is enough to drive away the spirit taking possession of the sick person. Fainting spells, cold clammy perspiration, and difficulty in breathing are signs that a person is possessed or disturbed by the spirits.

My experience among the Tingyans confirms what most ethno-graphic records on traditional societies have for a long time indicated, namely that personalistic disease causation beliefs are predominant in the medical perception and approach of these societies. Theory and practice are based upon the belief that disease is not natural, but the result of the intervention of forces and entities superior to human beings. Tingyans, therefore, mobilize all the means available to them in the human and physical environment: the shaman, the animals, the products of the soil, the plants, the music, the songs, the dances and the entire community.

**NATURALISTIC ETIOLOGIES**

Early in 1971, while in Lacub, I fell sick with malaria. During the first days of the sickness I thought it was just a heavy cold, perhaps aggravated by influenza. But after a few days I experienced exceptionally heavy perspiration, and chills. Knowledgeable women diagnosed the presence of malaria and began to treat me with abundant doses of hot ginger drinks. I was also taking antimalarial "Aralen" tablets which I had brought along with me.

Malaria is one of the diseases Tingyans are very familiar with, and don’t attribute to supernatural sources, but try to cure it themselves through herbal remedies. Shamans and curers are not always called upon to intervene. At times, as in the case of my malaria bout, many of the village mothers seem to play the curer’s role communally. The ginger cure has great importance among Filipinos, not only because of its alleged curative power but also because it is an important ingredient in their daily diet, and forms part of a system of humoral medicine introduced into the islands by the Spaniards several centuries ago. F. Lando Jocano mentions that ginger is also used for curing
violent nausea and fever in pregnant young wives,⁴ and various types of abdominal pain in everyone else.⁵

The Tingyans classify diseases, such as fever, vomiting, fainting spells, insanity, heat strokes, loss of consciousness, spirit possession, severe internal hemorrhage, and anything that brings about cold clammy perspiration and difficulty in breathing as being caused by personalistic sources, and therefore requiring ritual therapies. But diseases such as snake bites, burns, fractures, hemorrhoids and parasitism, are attributed to naturalistic causes and do not require the services of a shaman. Other diseases seem to belong to a category in between. Abdominal pains (probably gastric pains and appendicitis) and tuberculosis, for instance, are believed to have a natural cause, but when the patient's condition gets serious, they call for the intervention of the shaman who then performs ritual services.

Let us now consider how the Tingyans manage some of the diseases which they view as having natural causes.

**Snake Bites and Dog Bites**

Snake bites are common in the highlands. This ailment causes such concern among the population that a local healer, who is not a shaman, does not perform in the name or through the power of supernatural beings, but nevertheless possesses the *sumang*, the power to heal snake bites, is an indispensable person in the community.

Five men from Licuan, four of whom are relatives, claim to possess special powers to cure the effects of snake venom. The source of their sumang or power to counteract poison by the mere application of their saliva on the affected area, is a certain stone which their father supposedly had taken from the head of a green snake. One claims that the stone itself is the antidote, when placed on the spot punctured by the fangs of the snake.

A man from Lacub, Bugawit Bilino, uses his ear wax to counteract the venom. Another local healer applies the plant *pan-ao*, a *cugon* variety, to achieve the same purpose. In Tineg, the local healers use *karegkeg*, a parasite plant that grows on barks of trees. In Bacag, a dependency of Lacub, the woman healer uses the sap of the *liw-liw* tree to counteract the poison. Even animals, such as horses, carabaos

(water buffaloes), and cows when bitten by snakes are brought to the healers who possess the sumang, and are cured through their antidote.

Dog bites are treated differently from snake bites: In all three municipalities the dog is slaughtered and the liver and brain are given to the victim. These organs are supposed to cure a person of the effects of rabies. The sanitary inspector of Tineg, on the other hand, uses pacu, a fern, and applies it directly over the bitten part.

Bites from insects, centipedes and scorpions are treated with scubs from human teeth. The scubs are scraped off the teeth, mixed with bagoong, the sauce from salted fish, and placed over the bitten part.

Bites from alibut or lizards, and bao, or rats, are treated with the saliva of roosters. It takes a lot of skill to get saliva from fowls but the people of Lacub know the technique. They use a feather from the tail of the rooster. By tickling the throat, the saliva flows out. This is collected and applied to the affected part.

B U R N S

A local healer from Licuan claims that he has a special power to cure burns. He uses a bolo (a long heavy knife) and his own breath. He blows across the burnt part, applies the knife over it, and recites at the same time an appropriate prayer. The following is the prayer for burns or susua, in the local Tingyan dialect:

(Ti umuna puyutan diay napuoran)

Oy, — cuma ca ta balayang,
   Adika mambabliyan.
   Inkan nanganop sid tao
Oy, — cuma ka ta balayang,
   Adika mambabliyan.
   Nangagiyak kan ta ugsa,
   Nanan kandi ad-adayo.
Oy, — tiniliw dan dad asonan sid ugsa ngen,
Oy, — sid kanon ket ugsa san sit pagpa-
   dalanganac ket naid da cayo cantowe.
Oy, — sidin kano ket ala mag-apuy ka,
   Ta isulok sit pagdalanganam,
   kon kan nid Ipugao.
Oy, — sidin kano ket nagapuyeh.
Oy, — ala magtogao ka ket magsak kanta apuy no
  ta siya sit pagdalangan nam.
Oy, — ay-ay adi pay ket maugam ala padasem.
Oy, — isangpa nakan sid ugsa kan di payakna.
Oy, — adi kan namano sid payak nid tao.
Oy, — malangon na kanon ket, ay-ay tattawi
    pay sit pananak ket adayo wa lubong sitonen?
Oy, — ala kan ataem sit awit no ta sorok
    sit danem, kon kan nid Ipugao.
Oy, — guininata na kan sid awit na ket ala
    isupwatnon ta isurok sit danem.
Oy, — magkiddem ka, ipaturong naka, ket no
    misakdolka sikamagdiyat, kon kan nid Ipugao.
Oy, — nagkiddem kanon nananem, sid kan nisakdolen
    magdiyat kanon pengsal nid aldanda.
Oy, — kuma ka ta balayang, adika mabmabliyan.

(Blowing over the burned part)
Oy, — you are like a balayang that
    cannot be broken.
Oy, — Somebody went to hunt.
Oy, — you are like a balayang that cannot be broken.
    He went in order to hunt.
    His dogs caught the deer.
    'How will I burn the deer since there is
    no firewood'?
    Then, an Ifugao said, 'Build a fire and
    I will show where to burn.'
    Then after he built the fire.
Oy, — 'now sit and squat before the fire and burn.'
Oy, — 'well, my thigh might be burned.'
Oy, — 'no it will not happen. Try.'
Oy, — then he places the deer on his lap
    and nothing happened to him.
Oy, — then he was able to roast the deer.
    'How will I know now where to go since
    this is a far place'?
    'Carry your load and I will show you the
    way,' said the Ifugao.
    So, he carried his load. The Ifugao
    encouraged him.
    'Close your eyes and I will lead you.
    If you stumble, open your eyes,' said
    the Ifugao.
Oy, — he closed his eyes and proceeded.
    When he stumbled he opened his eyes.
    It was just in front of his own house stairs.
Oy, — You are like a balayang that cannot be broken.
The prayer fits very well into a hunting ritual, but the healer insisted that it was handed down to him for this purpose by his ancestors and he simply memorized it. He claimed that burns disappear in a few minutes when they are minor, and in five days when they are extensive.

**FRACTURES**

All local healers are expert "orthopedic doctors" by modern standards. A fracture is reduced in a matter of minutes. Without the aid of x-ray to visualize the broken parts, the healers rely on their sense of touch. They feel the edges of the fractured bones, manipulate the muscles and bones until alignment is achieved. Once the fracture is reduced, it is wrapped with *suwa* leaves and bound with a piece of cloth to immobilize the broken parts. This contraption serves the purpose as effectively as plaster of Paris. Sprains and dislocations are massaged with oil and kept warm by *suwa* leaves also.

**HEMORRHOIDS**

Tingyans have a peculiar way of reducing hemorrhoids. They push the protruding blood vessels back in to the rectum through the use of *nisnis* or rags or any piece of cloth used in wiping kitchen tables. When asked why this dirty cloth is chosen and not any other, they do not seem to know the reason. But the women healer of Lacub had a practical answer. It is easier, she said, to tear a piece from an old cloth than from a new one.

**TUBERCULOSIS**

Tuberculosis is a very common disease among the Tingyans who believe it is inherited from their parents. Others say that this disease is due to the lifting of heavy loads, to lack of sleep, and from drinking "wine." By wine, they mean the commercial hard drinks that are brought from the stores. They do not look upon *basi,* their native sugar cane drink, as wine, but as medicine. The bottled hard liquor contains acid, according to them, and this is the one that affects and corrodes the lungs.

Tingyans use various herbs for curing tuberculosis. Among the more common ones are the *palsi-it,* a vine, and the *lupa.* *Palsi-it* is soaked in *basi* overnight and is drunk by the patient. *Lupa* is utilized by boiling its bark and leaves and giving the resulting decoction to the patient to drink.
In severe cases of tuberculosis where vomiting of blood occurs, the rituals, of daydaya or buni is performed. But the massive bleeding usually causes the patient to die in a few hours. In cases of slight hemoptysis, however, the bleeding often stops, if the patient is kept in the reassuring presence of the attending shaman. Rituals and prayers have a calming effect on the anxious patient. Such phenomena are recognized also by modern medical sciences. When the patient calms down, the blood vessels follow suit, thereby slowing the circulation and eventually cutting down the blood supply to the open lesions.

GASTRIC ULCERS

Another common ailment among the Tingyans affecting most the adults is gastric ulcers. Some local health officials believe that this is probably due to their drinking basi and coffee liberally. Each family grows its own coffee trees and manufactures its own basi. They are willing to go hungry, but they cannot let a day pass without a glass of basi or a cup of coffee. Added to this is their addiction to tobacco. Every Tingyan adult is a chain smoker and many children begin to smoke as soon as they enter elementary school. They can be seen anywhere with cigars (rolled dried tobacco leaves) dangling from the corner of their mouths. Old ladies, though, smoke by inhaling the burning side of the cigar inside their mouths. All three of these commodities basi, coffee and tobacco, are an absolute necessity to the Tingyans. They believe that these give them energy for their work in the rice fields, and heat to keep them warm during the night. Tobacco actually drives away hunger pains and they can go on an empty stomach for days.

Local healers have no medicine for ulcer per se. They have no term for it but they have a medicine for symptoms which they describe as nasigab ti rusok, epigastric pain. When bleeding occurs, they simply describe this as takki ti dara or passing out bloody stools. These symptoms are treated with a decoction of boiled guava leaves. In Tineg, many claim that horse manure, when burned and brewed, will serve the same purpose.

APPENDICITIS

This ailment is never recognized as such. Cases are diagnosed as severe abdominal pain, some with sudden onset, others with slow pain lasting for several days. When fever sets in and persists for weeks, they call upon the shaman and the buni or daydaya ritual is
performed. If nothing happens, they might take the patient to the lowlands. Some die on the way, others reach the hospital, but often the peritonitis has gone too far and the doctors cannot do anything more.

PARASITISM

Microbes and ova of parasites are unknown to the Tingyans. They believe that certain types of food when eaten turn into worms. Candy and sweets are among them. They do recognize, on the other hand, adult intestinal worms or aryet, as they term them. Often they see these coming out of the mouth, nose and anus of their children. Enlargement of the abdomen, a common sign of severe infestation is diagnosed by them as parasitism.

They are familiar with the modern drugs for worms, yet much to their surprise they have controlled parasitism all these years through herbal remedies. They are not aware, however, that hygiene and sanitation have to be introduced if parasitism is to be finally eradicated. Most Tingyans do not have any sanitary toilets. They defecate anywhere: along riverbanks, in their backyards, rice fields, etc. They do not consider toilets a necessity for the maintenance of health. They are an eyesore and a source of foul smells in their vicinity.

MATERNITY AND CHILD CARE

Philippine anthropological literature on maternity and child care is abundant and detailed. Most ethnographers have clearly understood the great concern and care with which Philippine culture has surrounded the mother and the child, the source of life and the source of hope for the family’s future. Beliefs, customs, taboos and the incredible knowledge and pervasive use of herbal substances are carefully directed towards the generation, preservation and control of the family’s life and well-being.

As early as the onset of puberty, love potions, tigigamno, are manufactured from flowers, believed to have been touched by male monkeys. These are boiled and the decoction is used as an aphrodisiac. Menstruation is regulated through the use of a kind of grass Tingyans call tratot, which is prepared as a decoction and taken internally. For milk production, women of marriageable age are encouraged to feed on bisokol or dorikan, a kind of snail found in the rice fields, and on vegetables like malunggay and camote tops.

Pregnancy and birth are given the ultimate attention in terms of nutritional, medical, psychological and ritual attention. Nothing can
be refused a pregnant wife. In order to satisfy her nutritional desires, an anxious husband is willing to walk for days in search of rare fruits and forest vegetables she has requested. Failure to do so would adversely affect the mother and the child she is bearing.

Birth occurs in an atmosphere of intensive care and almost dramatic participation. All family members, but especially the wife's mother, the midwife, who is often the village curer and shaman, and the husband have very specific roles to play. Very significant is the presence, throughout the ordeal, of an apprehensive but reassuring husband who together with his mother-in-law sustains and physically supports the wife's labor in this critical moment. This is behavior which Western cultures only recently have come to appreciate.

Inspite of all the care and attention, infant mortality is high. E. Dozier writing about infant mortality in the neighboring province of Kalinga, says that "infants and young children are subject to a variety of ailments, and while many children are born, not many of them survive." At the time of my first stay in these three municipalities (1969-73) the average number of children born to one couple was seven. The average child mortality rate below the age of two was two per family.

The Tingyans have at their disposal a large variety of herbal plants which they use for contraceptive and abortive purposes. Plants of the kind called alba-acay, bang-aw, and mercado are either prepared as a decoction, or their fruits are eaten raw, or the sap is taken internally.

Significant in this case is the study of F. Landa Jocano of a Manila slum community, not far from the General Hospital. Jocano noticed that besides modern means of pregnancy prevention such as rhythm, coitus interruptus, condom, creams and pills, the most popular methods for this urban center were still the traditional ones based on the use of plants (Jocano lists seven types of plants easily available in the Manila market), of massage, and on the highly dangerous puncturing method. Similar methods were used by the villagers of Malitbog in the rural area of Panay island. There, according to Jocano, birth control was not popular among Catholics, but practised by sickly mothers and educated Protestants "who use either local preventives (that is, herbals) or the modern techniques learned from the missionaries."

MEDICINAL PLANTS

Charles O. Frake, in his study of disease among the Subanun of Mindanao, not only recorded a list of 186 human-disease names, but also gave a detailed view of the people's classification of numerous levels of skin diseases. Just as impressive, I believe, is Frake's statement that in Subanun country "everyone is his own herbalist." The knowledge and use of medicinal plants is the dominant and distinctive feature in Philippine folk medicine. Harold C. Conklin's study on the Hanunoo agriculture of the island of Mindoro, lists the names of eighty-seven planted crops and points out that forty-six of these are used for medicinal purposes. At any one time a Hanunoo farmer may be growing as many as forty basic crops in one swidden farm.

F. Landa Jocano's research among the Sulod people of Panay identified fifty-four kinds of medicinal plants, and described their uses, including preparation and application.

Tingyan healers and lay people rely just as heavily on plant medication and show great familiarity with the plant life of the region. Some of these plants are grown in their swidden farms, called pakarsu, or in the backyard, but most of them grow in the wild and are difficult to obtain.

As Jocano has indicated, the methods of application vary. Some are used exclusively for external medication, others as poultices and ointments, still others are boiled or dried, fruit powdered and taken orally as an internal medication.

The following is a partial list of Tingyan herbal and plant substances, indicating the local name, the part of the plant utilized, the manner of preparation and application, and the disease they are supposed to cure.

1. Atswete leaves - applied as poultice on body surfaces to lower fever.
   bark - pounded and applied on abdomen for constipation and for urinary tract ailments characterized by painful urination.
2. Suwa Talubotob (wild type of citrus tree) - scent of leaves is used to cure fainting spells, something like the spirit of ammonia.
3. Guanaba leaves - scent is used to avert fainting spells.

4. Balete leaves - boiled; decoction is used for cleaning of wounds.
5. Tanga fruit - boiled; decoction is taken in for stomach ache.
6. Guava leaves - decoction is used internally for stomach trouble and externally for cleansing of wounds.
7. Sablang (bagbag) bark - pounded and mixed with egg yolk; resulting mixture is used as poultice on chest and back for cough, bronchitis and pneumonia.
8. Tul-ok leaves - heated on fire and with oil is placed on chest and back for cough, and other respiratory diseases.
9. Bang-bangsit leaves - as poultice, it is applied over abdomen for abdominal pains.
10. Paltaan (barot ti igat) - cut into pieces, boiled; decoction is a cure for tuberculosis.
11. Banaba bark - decoction can be used internally for tuberculosis; externally for disinfection of wounds.
12. Lupa leaves - decoction is used internally for tuberculosis.
13. Dangla leaves - pounded and with vinegar is used for massaging tired muscles.
14. Langka leaves - burned; ashes mixed with oil are applied externally to scabies.
15. Ampalaya leaves - pounded; juice is mixed with oil then taken internally as purgative for all types of ailments.
16. Alba-acay leaves with vine - decoction is used for abortion when taken internally.
17. Bang-aw fruit - when eaten raw is abortive.
18. Mercado (sap of tree) - when taken internally is contraceptive.
19. Tratot (whole grass) - decoction taken internally will increase menstrual flow.
20. Malunggay leaves - decoction taken internally is used to increase lactation.
21. Camote leaves - decoction is used for milk production.
22. Pacu leaves - when placed directly over lesions from dog bites can cure rabies.
23. Karegkeg (parasite plant that grows on tree trunks) leaves - pounded, the juice is squeezed on snake bites.
24. Tangali whole herb - placed in bottles with coconut oil; when rubbed all over the body can cure ailments caused by evil spirits.
25. Tawa-tawa bark - chewed; sap when swallowed can cure snake bites.
26. Luno tender shoots - when rubbed on temples can cure headaches.
27. Manaba leaves - decoction is used internally for fever, externally can cure wounds.
29. Agilid bark - scraped and with water is rubbed all over the body for fainting spells, difficulty in breathing, and cold clammy perspiration.
30. Palsi-it vine - soaked in basi overnight; taken internally for tuberculosis.

SUMMARY AND CONCLUDING REMARKS

Ethnomedicine, whether of the personalistic or naturalistic types, is not as simple a phenomenon as it might appear to a casual observer. It is a complex system of health preservation and disease management that deserve our attention and our respect.

Against the background of a grossly inadequate system of modern medicine and scientific health services now existing throughout the Philippines especially among the rural and mountain folks, it comes as no surprise and as a great relief to observe that the traditional health care system is still operative. What A. Kleinman calls the popular sector, independently from or often in conjunction with the folk sector, and rarely with the professional sector, still continues to manage quite skillfully its physical and psychological well-being.

In times of crises professional medicine is mostly unavailable for the Tingyans, and given the present socioeconomic and political situation of the country it is easy to predict that the present conditions will last for at least several more generations. It is remarkable, therefore, that ethnic communities like the Tingyans can still can upon folk medicine to render vital services for the survival of Tingyan body and spirit.

There are indications though, that even this most precious cultural heritage may soon weaken and disappear. As the old folk of Licuan, Lacub and Tineg die out, traditional culture and medical care will die with them.

Given the vast knowledge of tropical herbs and plants by the popular sector one may hypothesize the survival of at least some aspects of traditional medicine. But even in this regard, the prospects are dim.

Until recently ethnobotanists believed that tropical forests could be a pharmaceutical cornucopia, an untapped store house of valuable
chemicals, from which to draw many of the medicinal needs, not only for the local inhabitants but also for those who depend on modern medicine and industry.

Lately though these same experts are coming to the sad realization that the remaining tropical forests in South America and in Southeast Asia are being cut for commercial agriculture and industrial purposes (as in Tingyan land), in total disregard of possible consequences. As a result, both the traditional cultures and their plants are disappearing at an alarming rate.

Dr. Brian M. Boon, of the New York Botanical Garden's Institute of Economic Botany, recently described this sad state of affairs, by saying: "As their dress changes and they no longer perform their old ceremonies their knowledge of plants is also being lost very fast."12 It is not impossible to imagine the health conditions among the Tingyans, in a generation or two, when no forests, no healers, no plant knowledge, will be left, and modern scientific medical services will still be an all-too-familiar empty political promise.