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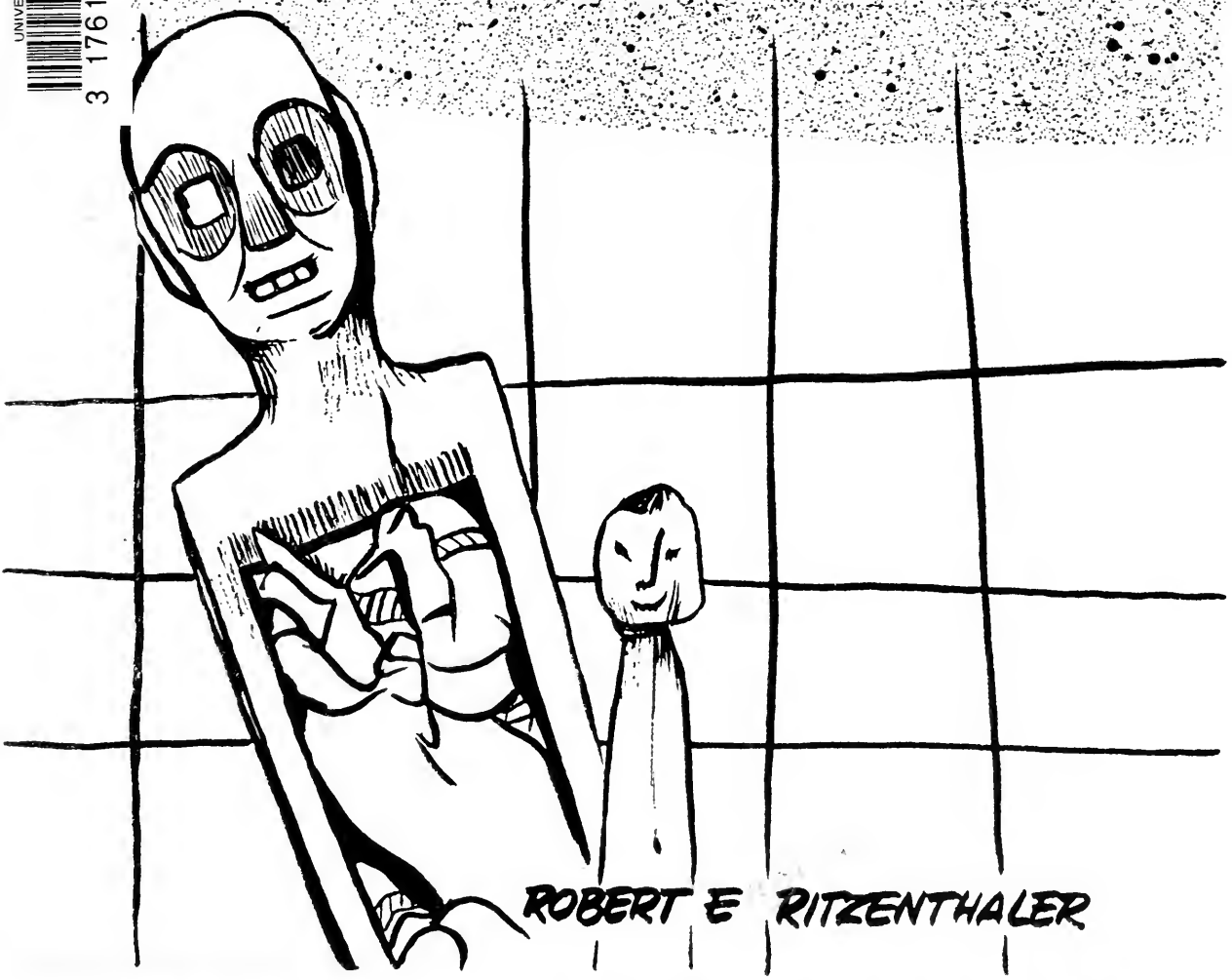
PREOCCUPATION WITH HEALTH



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Chippewa Preoccupation With Health; Change in a Traditional Attitude Resulting From Modern Health Problems

A thesis submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, in the Faculty of Anthropology, Columbia University.

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PREFACE

This study is based primarily on information collected during three summers of field-work carried on in 1941, 1942, and 1944. The major portion of data was obtained at the Lac Court Oreilles reservation, but valuable confirmatory and comparative material was secured through visits to such other Chippewa communities in Wisconsin as Lac du Flambeau, Bad River, Red Cliff, and St. Croix; and Lac Vieux Desert in Michigan.

The project was jointly sponsored by Columbia University and the Milwaukee Public Museum both as to finances and personnel, with a duplicate set of field notes being deposited at both institutions.

The writer is particularly indebted to Dr. Ralph Linton and Mr. W. C. McKern who organized the project and lent valuable aid throughout; to my co-workers in the field, Joseph B. Casagrande, Ernestine Friedl, and Victor Barnouw; to Dr. Sylba Adams of the Hayward Indian Hospital; and to the many Chippewa Indians who indulgently answered our often prying questions and admitted us to many intimate gatherings and ceremonies.

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INTRODUCTION

1. THE PROBLEM

Whenever primitive peoples come into direct contact with Western Civilization the result is a sharp decrease in the native population. Factors responsible for this include conquest in which actual slaying occurs by an armed force such as in the Spanish conquest of Mexico, or in more informal liquidation of the native population by civilians such as in the case of the Tasmanians. The chief cause of native depopulation resulting from a contact situation, however, lies in the field of health. The introduction of new diseases to a people lacking immunity to them is perhaps the chief cause. Measles, for example, a normal childhood experience to most whites operated as a deadly epidemic when introduced into Polynesia. Smallpox wiped out whole Indian villages, and, in the Great Plague of 1837 which swept through the Missouri Valley, an estimated 10,000 Indians were destroyed in a few weeks (Schoolcraft, Vol. 1, p. 257-8). Tuberculosis, the "Indian killer," a slower, but no less effective destroyer than smallpox, is still rampant among the American Indian. When a new disease did not kill directly, it sometimes led to a decline in population by affecting the birth-rate. In Yap and the Marquesas gonorrhea has been a cause of sterility in women and certainly a factor in the sharp decline in the birth-rate.

The introduction of new foods, clothing, and shelter have also had their effects on native population. The destruction of a native economy often meant that the foods of the conqueror were substituted, and frequently it was the inferior foods, or proper foods used improperly resulting in an unbalanced diet. The introduction of white man's clothing in parts of Oceania was frequent cause of pulmonary diseases and death because the people did not remove the clothing when wet, an unnecessary procedure with their traditional garments. The effects of a new type of shelter on a primitive population are more difficult to determine. Among some of the nomadic or semi-nomadic American Indians where household cleanliness was neither a necessity, nor a tradition, the shift to a fixed abode while maintaining their traditional lack of concern for household cleanliness undoubtedly had some effect on the introduction and spread of disease.

All of these factors played a part in the populational history of the Indians of the United States. The Indian population at the time of the first white contact has been estimated at 846,000 (Mooney, p. 287). This figure

steadily declined until by 1900 it had reached a low of 200,000. Since then it has been steadily gaining until at the present time there are some 360,000 Indians in the United States. What the causes were for this rebound within the last fifty years are not within the scope of this paper, but factors such as the cessation of warfare, both intertribal and with the United States, acquired immunities to some diseases, racial intermixture, and improved medical care were undoubtedly involved. This paper will be concerned with an analysis of the contact results on the major cause of populational fluctuation, health, of one band of Chippewa Indians now living in northwestern Wisconsin.

One of the striking things encountered during a nine-month field study of the Wisconsin Chippewa was the inordinate amount of attention given to health and healing. Of course, man's interest in preserving his health is universal, and in all societies, both primitive and complex, a generous share of the culture consists of ways and means of dealing with that problem. In our own culture the knowledge and techniques of curing, ranging from "old wives" remedies to medical science, are legion. The hyper-consciousness of the Chippewa regarding health and curing seemed well beyond a normal interest and raised three primary questions. First, is this situation purely cultural, or does it have a biological basis? In other words are the Chippewa merely expressing a cultural interest, or are they actually in a state of poor health? Secondly, is this preoccupation with health a fresh condition, or has it been evinced in their earlier history? Thirdly, what was the effect of the impact of Western Civilization upon the cultural and biological situation? And, finally, to attempt to determine whether or not exaggerated health anxieties are unique for the Chippewa among North American Indian tribes, and to what extent, if any, health anxieties are correlated with type of economic life. My procedure will be, first, to make an analysis of various phases of culture in which this intense interest in health is reflected to show that it does exist; secondly, to seek the solution to the above problems on the basis of field observations, modern hospital records, and source material provided by ethnological and historical accounts.

2. THE PEOPLE

The Lac Court Oreilles band of Chippewa consists of some 1700 people sporadically scattered over a reservation of 45,000 acres in Sawyer County in northwestern Wisconsin. The people, traditionally food gatherers with

emphasis on hunting and fishing, entered the state from Canada via upper Michigan, around the middle of the Seventeenth Century. They were concentrated on this reservation as a result of the treaty of 1854, and settled at various times in atomistic communities which today exist as Reserve, New Post, Barbertown, Bisonetteville, Chief Lake, and Round Lake. Their traditional economy has survived to a considerable degree with hunting, fishing, and the gathering of such wild foods as berries, rice, and maple-sugar still carried on. Supplementing this diet are foods purchased at "white" grocery stores. The cash income is obtained primarily by seasonal occupations such as guiding, lumbering, and the harvesting of cranberries, peas, and beans for the nearby farmers. Such income, however, is meager, and the economic problem of the Chippewa, as among all American Indians, is a major one.

The ordinary dress of the people is that of the white man except for a few of the older folks who prefer moccasins to shoes. Indian dress is seen only at the summer dances for the tourist, and here the Woodland costume has become intermingled with such Plains items as the war bonnet, vests, bustles, and Dakota moccasins. Houses are either small log cabins, or small frame structures with the elm or birch-bark wigwam employed only as a storage hut, or occasionally used as dwellings in the wild rice camps.

The old social system has largely collapsed and, although most people know to what clan they belong, the clan system is functionless except in a few minor instances.

Catholicism has made substantial inroads into the religious life of the people, but there is an active so-called "pagan" group carrying on the old religious beliefs and ceremonies.

The nearly three centuries of contact with the whites has resulted in a steady loss of the Indian culture, and, at the present time, a rough estimation of the acculturational proportions would be eighty percent white and twenty percent Indian. This, however, is not a well-kneaded mixture, but is closely associated with age groups. Thus the children have little knowledge or interest in the old Indian culture, and in most cases speak only English. The middle-age group essentially follow the white ways, but with Indian infiltrations, and are frequently bilingual. The old folks cling more to the old ways, and in many cases speak only Chippewa.

PHONETIC KEY

Vowels:

i in f*ee*t

i in b*i*t

e in m*a*ke

e in b*e*t

a in r*o*d

o in r*o*pe

u in r*oo*m

ə in b*u*t

Consonants:

š in *sh*ot

ž in *g*endarme

č in *ch*ild

g in *g*irl

n in ri*ng*

Other consonants as in English.

Signs:

' accent

ˋ secondary accent

• length mark

ʔ glottal stop

au dipthong in m*ou*se

Part One
The Existence of the Attitude

1. PREOCCUPATION WITH HEALTH IN DAILY LIFE

Although health is an important topic of conversation among most peoples, the Chippewa have given it top priority. I was impressed with the number of instances in which I addressed to an Indian the casual rhetorical question of "How are you?", which in our culture brings forth only a mechanical, platitudinous response, but which evoked a flood of details from the Indian. Kohl (p. 110), writing nearly one hundred years ago, offers similar observations: "If two Indians go on a journey, they ask each other a multitude of questions as to the state of health of their respective families. Each relative is mentioned separately, and his present condition described. 'How is your wife? What are your children doing — are they all well and fat? Is your old mother in good health?' 'No! she is rather unwell.' 'What is the matter with her?' 'She has caught a bad cold, and is down with a fever.' 'Have you a powerful medicine for that? If not, will you try this? Take some of it.' 'Well how is your uncle? And are your aunt's bad feet better?' 'Her feet are better, but she has begun to suffer in her eyes.' With such questions and answers the whole family is passed in review, and all their sufferings and illnesses closely investigated."

A more concrete manifestation of their interest in health is in the assortment of roots and herbs used for medicinal purposes, hanging on the walls, ceilings, and over the fire of nearly every home. These range from herbs with actual medicinal effect (laxatives predominating) to herbs with ascribed magical properties, such as flag-root, to be carried on the person to keep snakes away. An active knowledge of native plants and their medicinal uses exists, and one fellow had a native pharmacopoeia in which he had transliterated in Chippewa a total of sixty-four remedies, one of which had twenty-two ingredients. Densmore (1928, pp. 286-294) lists 143 different plants used for medicinal purposes by the Wisconsin and Minnesota Chippewa. While there was a minimum of scientific accuracy in the compounding and dosages prescribed, many of these herbs have been found to possess intrinsic therapeutic properties, and have been incorporated into our own materia medica. The medicines or knowledge of them can be given, bartered

for, or purchased, and such traffic is carried on not only intra-tribally, but also among other groups such as the Potawatomi and Winnebago. However (p. 324), "In the old days a person would not transmit any facts concerning medicines to even a member of his own family without compensation, one reason for this restriction seeming to be a fear that the information would not be treated with proper respect. So great was the secrecy surrounding these remedies that names were seldom given to plants, the person imparting the information showing the fresh plant." One chap offered to show me a plant used for curing toothache for a fee of one dollar.

Another method of acquiring knowledge of medicines was through the Midewiwin when such information was dispensed for a fee, especially at the time of one's initiation. "Although the Midewiwin was a repository of knowledge of herbs (Densmore, pp. 322-323), it did not have a pharmacopoeia accessible to every member. The remedies are individual, not general, and an individual when questioned invariably replied, 'I can tell you about my own medicines. I do not know about other people's medicines nor their uses of the same plants.' "

Medicinal plants are commonly collected on a special expedition, or in conjunction with other activities. The people know the best places to go to gather a certain type of plant, and when the plant is dug up, a pinch of tobacco is usually placed in the hole as an offering to the spirits (manidog), or put next to the tree if bark or leaves are removed. The home stock of medicines may also include non-vegetal substances such as clam-shells, catlinite, dried bumblebees, bear's-gall, deer-tallow, bear-grease (Densmore, 1928, pp. 330-1), gypsum, and native lead (Jones, p. 153). A small stock of drug-store remedies such as aspirin and iodine will round out the average "medicine cabinet" of the Indian. Dr. Adams, the Medical Officer at the Government hospital, and who had also worked in Indian hospitals among the Dakota Sioux and on the Northwest Coast, made the observation that the Chippewa made much more use of Indian medicines than either of the other two groups.

While it can never be said that the Chippewa were, or are, fastidious concerning matters of cleanliness and sanitation, they nevertheless observed certain health measures. The following is a list compiled by Densmore (1929, pp. 46-7) for the Minnesota and Wisconsin Chippewa:

"The following data collected from many individuals should be understood as representing the best ideals of the tribe rather than the practice of each individual or family:

"Cedar boughs were frequently burned in a lodge to purify the air.

"Sage was burned in a lodge during a contagious illness. It was also used to fumigate the head and hands of those who had cleansed the dead.

"Bedding was aired daily in summer and spread on the snow in winter.

"Woven bags, when soiled, were brushed, pounded, and turned the other side out.

"Damp clothing was dried over the fire. It was said that the smoke had a healthful effect and prevented vermin.

"Bathing in a lake or river was frequent, and the hair was thoroughly washed.

"A small sweat lodge was often built in a corner of the living lodge for use during the winter.

"Stiff brushes were used in washing the hands and in scouring kettles. These brushes were identified as Equisetum hyemale L.

"Travelers did not drink water if uncertain of its purity. The usual custom was to boil the water and put in twigs or leaves of plants or trees known to be healthful. The decoction was drunk hot or allowed to cool.

"The space of hard ground between the fire and the mats in a lodge was swept clean, the sweepings being put in the fire. The Canadian Chippewa made brooms of ash, the entire broom being made of one piece with narrow strips of wood turned back and tied to form the brush.

"Refuse that could not be eaten by the dogs was burned.

"Lye for household use was made from hardwood ashes. The directions were: 'Boil the ashes, let them stand, strain them out, and use the water.' A specimen of this was obtained and found to soften water in an acceptable manner.

"For washing dishes they 'took the lye down to the beach, put it in the dishes, and scoured them with sand.'

"Washing of clothes was done as follows: The soiled clothes were soaked in warm, weak lye, after which they were 'shaken and pounded' and rinsed in the lake. Lye used in washing clothes was of such strength that they could dip their hands in it without discomfort.

"Washing of blankets was as follows: They were washed in 'not too strong' lye. If a flat rock were available, the blankets were spread on the rock and pounded with a flat board, after which they were rinsed in plenty of clear water and dried.

"In winter the face and hands were washed with snow.

"It was said that the Chippewa never immersed their bodies in icy cold water."

At the present time health measures are observed, but certainly not to any overwhelming degree. It is interesting to note that there appears to be no correlation between cleanliness and degree of acculturation. Personal and household cleanliness seems to be an individual affair, and some of the cleanest homes I was in belonged to the old, so-called "pagan" people to whom the germ theory of disease meant nothing.

2. PREOCCUPATION WITH HEALTH IN CEREMONIAL LIFE

The most glaring manifestation of the Chippewa's interest in health is shown in their religious ceremonies. Two of the three ceremonies functioning at the present time have curing as almost the sole purpose, and to the third, the Drum Dance which is an importation from the Dakota Sioux, the Chippewa have added a special curing ceremony.

THE MIDEWIWIN

The Midewiwin, or Medicine Dance, is the most important religious ceremony of the Chippewa. It is too complex in both meaning and ritual to adequately describe in this paper, but the important elements as encountered today will be summarized. The Midewiwin is the important ceremony of the Medicine Lodge Society to which membership is obtained by preliminary instruction and formal initiation at one of the semi-annual meetings held in late spring and early fall. The instruction and ceremony is under the leadership of a number of recognized priests each of whom has an assistant or runner. The ceremony now lasts from two to five days depending upon the number of candidates, and is held in a specially constructed, semi-cylindrical lodge consisting of a pole framework open except for cedar boughs placed along the sides up to a height of two or three feet (Figs. 1 and 2).

A person who is sick or dreams he should "go through" the Midewiwin signifies his intention by holding a feast to which friends and a Mide priest are invited. If the priest tells him to go through, he must make the following preparations: He begins buying the blankets and pails needed for the initiation payment. The payment for each of the degrees varies as follows:

	Blankets	Pails (galvanized water buckets)
First degree	7	2
Second degree	11	2
Third degree	17	2
Fourth degree	21	2

Clothing is sometimes substituted for blankets. The candidate is given a cowrie shell (*mi'gis*) on a thong which must be worn around the neck at all times until his initiation. He must also give a series of feasts during this period to which his sponsors and the priest are invited.

FIG. 1—Medicine Lodge.

FIG. 2—Medicine Dance at Lac Vieux Desert.

The priests decide when and where the initiation ceremony will take place and assemble the candidates with invitational tobacco. Each candidate is given secret preliminary instructions as to the ritual and conduct he will have to observe during the ceremony, and is taught songs, meanings, and secrets of the Society depending upon which degree he is taking. On the first day of the ceremony the blankets and pails of the candidates are hung on the ridge-pole of the lodge which has been built (or repaired if they are using an old one) on the previous day. The candidates are led into the lodge from the east and seated at individual stakes in the center. The members assemble with tobacco, food, and their medicine-bags, and march around the lodge led by a priest who sings the entrance song. The people leave tobacco on a rock outside the east entrance, march inside, and take seats along the sides. The ceremony is directed by the priests who do the speaking and singing, and direct the dancing, feasting, and ritualistic maneuvers. The important and dramatic feature of the initiation is the magical shooting of the shells into the body of the candidate by the sponsors with the aid of their medicine-bags to drive out sickness and "renew life." The shell is actually dropped in front of the candidate. During this procedure the candidate is given a medicine-bag as follows:

First degree . . . mink, otter, muskrat, or beaver
Second degree . . . owl or hawk
Third degree . . . snake and fox, or wildcat claw
Fourth degree . . . bear paw, or cub bear

After the shooting, the candidate distributes his blankets and pails to the Mide priest, runners, and sponsors. When all the candidates have been initiated, the members march around the lodge holding their medicine-bags and shooting one another in a general melee, and finally exit by the west doorway. The initiates leave last taking with them their medicine-bags and the decorated stakes at which they had been seated.

The Midewiwin is now so dominated by the curative aspect that sickness is actually a pre-requisite for membership. When I would discover someone wearing the *mi'gis*, the shell indicating that he was to be initiated at the next meeting, my question as to what was wrong with the person was accepted as an appropriate one, and details would be supplied. In only one instance among the twenty or so candidates I observed at four different ceremonies was sickness not a reason for the person "going through." In this case a young fellow was being put through by proxy, i.e., he was taking

the place of his ailing step-father who was to have been initiated, but had suddenly died. This is quite a different situation than that described by Hoffman (1891, pp. 163-4) for the Minnesota Chippewa in the 1880's. Hoffman describes entrance into the Midewiwin as a natural, routine part of a person's life with application usually as a result of a dream, or, if the desire to join is not blessed by a dream, the person could make his wishes known by expressing to the Mide priests a desire to purchase a *mi'gis*. At the present time even babies who are, or have been sick, can be inducted into the society which seems to be another distinct departure from the old tradition. While curing and prayers for health and new life were certainly important elements in old Midewiwin, they never dominated the ceremony so completely as at present.

The curative function of the Midewiwin today is primarily on the supernatural basis, although practical techniques are not entirely neglected. Medicinal instruction, formerly an important feature of the Midewiwin, has degenerated to an almost negligible element. At Lac Vieux Desert, the Mide priest insists that the candidates are told about only two medicines during the four degrees (Kinietz, 1947, p. 209). This is quite different from the situation described by Kohl in 1860 who met one Chippewa who estimated that he had traded forty packets of beaver skins for medical knowledge in the Midewiwin. Kohl (p. 382) figured he had thus invested some $30,000 in his medical education.

When a contact situation results in the shrinking of a native institution, it is logical to suppose that those elements which are considered to be most important or most useful to the people will be preserved the longest. In the case of the Chippewa it is apparent that much of the old ritual, meaning, and accoutrements of the Midewiwin have been sloughed off within the last fifty years, and in this condensation process the religion has withdrawn into and seized upon the curative aspect as the important one which resulted in a considerable change in the total institution. The reason for this trend, I believe, is a direct reflection of the serious health problem, and represents an expression by the people of the need and desire to deal with this situation through the natural and supernatural curative techniques of the Midewiwin.

THE CHIEF DANCE

An even more convincing example of the effect of this preoccupation with health on a religious ceremonial is found in the Chief Dance. The

Chief dance (og/čida'nim'/diwin) at the present time is held if a person is sick, or if someone dreams that sickness is about to invade the community, and the main function of the ceremony is to enlist the aid of the guardian spirits of a group of people in the curing of the sick person, or in warding off the impending sickness. There is no regular membership, or scheduled meetings as in the Midewiwin. The ceremonial pattern consists of invitation by a gift of tobacco sent with a runner, the dedication of the food and tobacco to the spirits by a speaker, a feast, singing and dancing to the rhythm of a tambourine drum, and the enlistment of personal guardian spirits by the participants in the aid of a person, or the community at large.

The ceremony has undergone a rather profound shift in purpose. My older informants claimed it was originally a war ceremonial held before a war party was sent out against their traditional enemy, the Woodland Dakota Sioux. The people then enlisted their guardian spirits to insure the safety and success of the war party. This contention is bolstered by such suggestive elements as the literal meaning of the name, i.e. "brave dance," the relating of war exploits (now rarely done), the use of the same type of drum as was employed by a war party, and a former practice of carrying wooden knives to represent scalping-knives during the dance. Although popularly called the "Chief Dance" at Lac Court Oreilles, it is commonly called the "War Dance" at the nearby reservations of Lac du Flambeau and Lac Vieux Desert.

When hostilities with the Sioux ceased, the ceremony also died down from lack of purpose, although it did not die out. Its dessication, and subsequent revival (during the early part of the twentieth century) as a mutual aid society is a point on which all informants agreed. Although now held primarily for curative purposes, it is also occasionally held to insure a good wild-rice crop, to avert inclement weather, and during World War II, to insure the safety and success of the Indian boys in the armed forces, a purpose somewhat harking back to the original one.

This revival and reinterpretation of the Chief Dance in terms of health seems to me a significant display of the Chippewa attitude toward health.

THE DRUM DANCE

The third ceremonial, the Drum Dance (or Dream Dance), is an importation coming to this band during the 1870's. The ceremony revolves about

FIG. 3—Drums at Dance Ring.

a small number (there are three at present) of sacred drums. These are made of wooden washtubs covered with calf hide and highly and symbolically decorated with paint, beadwork, and other trappings (Fig. 3). The drum is theoretically owned by two individuals (although some of the drums today have but one owner) and the members are spoken of as belonging to a certain drum. Each member has a special place at the dance ring or around the drum, and specific duties such as speaker, singer, drum heater, pipe tender, etc. Women can belong to a drum, but have no specific duties. They accompany the singing with humming and join in the dancing. While small, home meetings are held for a drum at various times throughout the year, the main ceremony is (ideally) a four-day event held twice a year, usually following the Midewiwin, and all the drums in the band are assembled. These are held in a special lodge or outdoor ring (Fig. 4). At the ceremony the speakers thank the people for coming, thank the drum spirit for helping the people, and preach such virtues as good moral conduct, and helping one's fellow man. The major portion of the ceremony is taken up with singing and dancing. Dancing is an individual affair and done in the same spot. The singing and drumming is done only by assigned members seated around the drum in the center of the ring. The singers have to

FIG. 4—Drum Dance Ring.

memorize a great many songs, for each person has his own song. When it is sung, according to a definite order, that person must get up and dance; then others may join in. When the song is finished the person must contribute some article such as a blanket, clothing, or a gun to some member of his choice. A bundle of gifts is also given to an invited representative of another band for distribution to his people. The presentation of gifts is the important feature of the Drum Dance.

Health is not an important theme of this ceremony. The speakers usually include a prayer for good health sometime during the dance. Also, the Chippewa, in taking over the dance from the Sioux, did add a curing ritual in which the sick person was brought into the dance ring and special curing songs sung in his behalf, but this is rarely done at present, and it seems not to have been an important feature of the dance even in former times. The Drum Dance, in fact, once a sort of social clearing house for such events as marriage, divorce, removal of mourning, et al., has now become essentially a social dance in which singing, dancing, and visiting are the main attractions.

PEYOTE

Considering their attitude toward health and curing one would expect to find a ready acceptance by the Chippewa of such curative cults as Peyote. Peyote, however, has made only feeble inroads among the Wisconsin Chippewa. There is a small, but active, cult at the Lac du Flambeau reservation some eighty miles to the east of Lac Court Oreilles, but it has never penetrated the Lac Court Oreilles band. Lack of opportunity is not the reason, for this band is in close contact with such peyote users as the Potawatomi, Winnebago, and the Flambeau band. It has, rather, been actively and successfully resisted due to the efforts of the older people, particularly the influential Mide priests who feel it would interfere with the Midewiwin religion. It might be noted, however, that at Flambeau the curative seems to be the most important function of the cult.

3. PREOCCUPATION WITH HEALTH AS REFLECTED BY NUMEROUS DISEASE CONCEPTS

Before beginning a discussion of disease concepts it is necessary to present a picture of the magico-religious world of the Chippewa.

The Chippewa viewed the natural surroundings as being inhabited and controlled by spirits (ma'nidog). There are believed to be spirits in such natural phenomena as the sun, moon, stars, trees, rocks, lakes and rivers, birds and animals. At the head of this pantheon is a Supreme Being (gičima'nido or mide'manido), a benevolent, but remote being who parcels out the various tasks to lesser spirits. For example, the four thunder-birds representing the cardinal directions are assistants of the Supreme Being who has delegated to them the job of directing the weather. It is considered to be their complete responsibility, and attempts to control the elements are by appeal and offerings to them rather than to the Supreme Being. The sun and the moon are considered to be runners of the Supreme Being. Besides such universal spirits there were benevolent and malevolent local spirits usually inhabiting certain landmarks and known only to the local band. Beyond this most men had a guardian spirit obtained as a result of a fasting experience during youth. Women could acquire them also, but not during the puberty fast. The guardian spirit provided the individual with assistance and protection throughout life. The guardian spirit communicated warnings and advice to the person through the medium of dreams. Dreams

are thus regarded as being of great moment, and influenced behavior to no small degree. The attempt to influence the spirits for the benefit of the person or community was by means of such techniques as offerings of tobacco, food, and goods; prayer and supplication; observance of taboos; religious observances and ceremonies; and by intercession of guardian spirits. The Chippewa also believed that each person had a soul.

Such concepts had a number of implications in terms of the health and well-being of the people. While common physical ailments such as headaches, colds, cuts and bruises were viewed as natural occurrences, the majority of more serious ailments were believed to have a supernatural etiology. Thus sickness or injury could be the result of offending a spirit by failure to observe a taboo or sanction. Most common, however, was the danger of a fellow Indian using his spiritual power, or hiring a shaman with more power, to bring injury to an enemy. To this end such techniques as sympathetic magic, soul stealing or incapacitation, and magically imbedding foreign substances in the body were employed. Paralysis of the face, for example, was always regarded as the work of an enemy, and usually a shaman was hired to determine who was poisoning the person, rid the patient of his malady by employing more powerful spirits, and if possible, return the sickness to plague the sender. Such efforts often resulted in shamanistic duels. Shamans were greatly feared and respected because of their greater spiritual power and thus greater ability to do both good and evil.

The previous description is that of the traditional culture, and it should be pointed out that while the majority of these concepts and practices survive, or have at least in part survived, they are at present associated primarily with the older folk.

It is interesting to note that according to Clements' tabulation of disease concepts of the world (pp. 193-201), the Chippewa are one of the few tribes having four or more of these concepts. Clements defines primitive concepts of disease as "those ideas held by primitive people as to the cause or genesis of sickness." He then sets up the following five catagories into which all primitive concepts of disease can be classified:

1. SORCERY. Here are grouped all those theories which ascribe sickness either to the manipulations of persons skilled in magic or to the operations of human beings who exercise some control over the supernatural world.

2. BREACH OF TABOO. All theories which explain sickness as a punishment sent by the gods for breach of religious prohibitions or social prohibitions having divine sanction, are included under this heading. The breach may be quite unintentional and even unknown to the sufferer but it is none-the-less regarded as the real cause of his sickness.

3. DISEASE-OBJECT INTRUSION. Under this heading are listed all theories attributing disease to the presence in the body of some malefic foreign substance. This need not be intrinsically pathogenic and usually takes the form of a bit of bone, hair, a pebble, splinter of wood, or even small animals, such as lizards, worms, and insects.

4. SPIRIT INTRUSION. This class includes all those etiologies which hold that disease is due to the presence in the body of evil spirits, ghosts, or demons.

5. SOUL LOSS. This class includes all theories attributing sickness to loss of the soul (Clements, pp. 186-190).

He then proceeds to list 298 tribes or areas giving the disease concepts as reported for each. The Chippewa are reported as having four of the five concepts, leaving only breach of taboo as unreported for the tribe. However, this compilation was based on Hoffman's classic work on the Midewiwin, which was not especially concerned with curing and contains no information concerning the breaking of taboos. The Chippewa definitely have the concept of breach of taboo as causing sickness. The breaking of either menstrual or mourning taboos can be directly responsible for sickness, and some actual cases will be cited in a later section on this subject. Thus the Chippewa must be listed as having all five disease concepts, a phenomenon shared by only four other groups in the world according to the Clements' tabulation: the Maori, the Baganda, the two areas — Borneo and Peru. While a tabulation of this sort cannot be regarded as completely accurate because of the lack of full and accurate source material for certain areas, it nevertheless does indicate the relative extent to which certain peoples developed their thinking along the lines of disease causation. The awareness of the Chippewa to all five possibilities suggests a certain preoccupation with the problem of sickness.

To these five primitive concepts of disease must be added the modern germ theory of disease as introduced by the whites. The germ theory, although often not properly understood, is still taken cognizance of by an increasing number of people due to the influence of the Government hospital, and the schools. A health education program consisting of movies on such subjects as tuberculosis and post-natal care of children has been attempted by the hospital, and undoubtedly has had some effect in illustrating certain aspects of the germ theory such as the importance of cleanliness and vaccination.

The older people dichotomize between Indian diseases and white man's diseases, and will openly admit that Indian cures are ineffective against white man's diseases, and point out that the white man can do nothing about certain Indian diseases. Thus it is not regarded as incongruous that even a medicine-man seek treatment in the hospital for such maladies as tuberculosis, smallpox, or cancer. This distinction, however, does not mean that both methods may not be employed to effect a cure. In fact it is quite common for people to try the hospital first, and upon failure of that method, to resort to Indian treatment, or vice versa. For example, Mrs. J. B. had her son leave a tuberculosis sanitorium in Chicago to come back to the reservation where she hired a shaman to put on a shaking-tent ceremony to find a cure. On the other hand, I was called upon to drive a Mide priest to the hospital for the removal of a tumor after a variety of native cures had been attempted. In most cases the theory of disease merely determines the order of treatment, and a person with partial paralysis will first seek to learn who is magically poisoning him and then to employ counter-magic to effect a cure. Upon failure of that he might end up at the hospital.

The effect of the impact of the germ theory then has been that there is one more added threat to the health of the community, and among the more acculturated members of the tribe it has already superseded in importance the native etiologies.

4. PREOCCUPATION WITH HEALTH AS EVIDENCED BY THE VARIETY OF NATIVE PROTECTIVE AND CURATIVE TECHNIQUES

To combat such a formidable array of disease-causing phenomena the Chippewa have devised a formidable array of curative devices. The imposing

aggregation of plants in past and present use as medicinal cures has already been commented on. The following discussion will analyze other primitive techniques of curing under the heading of: mechanical methods, shamanistic techniques, and protective and preventive methods.

MECHANICAL METHODS OF CURING

Cupping

There are only a few recognized "specialists" practicing blood-letting by the cupping method at the present time. The practitioners are usually women (bepe'šwe'jikwe, cutting or scratching woman), and there is no cult or supernatural practices connected with it. The knowledge and technique is taught to an apprentice for a fee, although one male informant claimed he was taught how to do it by a mosquito and horse-fly, through a dream. The patient pays the doctor a fee, usually tobacco and some common article, but one person charges a fee of $5.00 per treatment. The most common ailments treated in this manner are headaches and blood-poisoning, but such things as dizziness, soreness, swelling, and rheumatism are also regarded as curable by this technique.

The equipment consists of a sharp instrument for making the incision, and a section of horn to draw off the blood (Fig. 5). In several instances the lancet was obtained by smashing a coldcream jar and selecting a sharp fragment, but a knife or razor may be used, and one practitioner had a triangular steel blade set into a wooden handle. The cupper is made from a three- or four-inch section of the small end of a cow horn which is cleaned out and the tip perforated. To cure a headache, for example, the doctor makes a slanting incision in the temple of the patient so as to strike a vein, puts the large end of the horn over the cut, and sucks on the small end to draw off the blood which is caught in a dish. According to one informant the blood is caught in a dish containing water and emptied outside in an isolated spot "where no-one will step on it or disturb it." Blood-letting is limited to the head and limbs, and for blood-poisoning the person is bled until "all the dark blood is out and the blood runs red and clear." A pint seems to be about the maximum removed at any one time. No sterilization of the lancet is reported, but some doctors apply a native salve to the cut after the bleeding has stopped, or a native astringent may be used to stop the bleeding. When a metal lancet is used the point is placed over a vein

FIG. 5—Cupping Equipment.

and lightly snapped with the thumb and finger to make the cut. In some cases two or three treatments over a period of several weeks are necessary before a cure is effected. While blood-letting was not scientifically employed by the Chippewa, it undoubtedly effected cures in some instances. That blood-letting can have a salutary physiological effect is indicated by the fact that modern medical science makes considerable use of it in cases of hypertension and Polycythemia Vera.

Whether cupping was a primitive method of the Chippewa, or one taken over from the whites is open to question. There is no archaeological evidence thus far to support the theory that the Indians practiced it prehistorically. My impression is that, inasmuch as it was a popular technique of the whites in our earlier history, it was taken over by the Indians during early white contact. Its former popularity has declined, and we found only four women and two men who had practiced cupping within the last few years, and none had had more than two or three patients during that time.

Tattooing (asasuwi'n)

Another technique for curing the same ailments as by cupping is to strike repeatedly the ailing area of the patient with an instrument set with a series of needles. This method is practiced by individual specialists, mostly women, who work without supernatural assistance. The usual fee is a gift of tobacco often accompanied by such articles as blankets or beadwork. The tattooing instrument in former times was usually the upper or lower jaw of a garfish, of which the long rows of needle-like teeth served quite well. I obtained one such specimen in 1941, but it was the only one on the reservation to my knowledge (Fig. 6). The usual type today is a series of steel

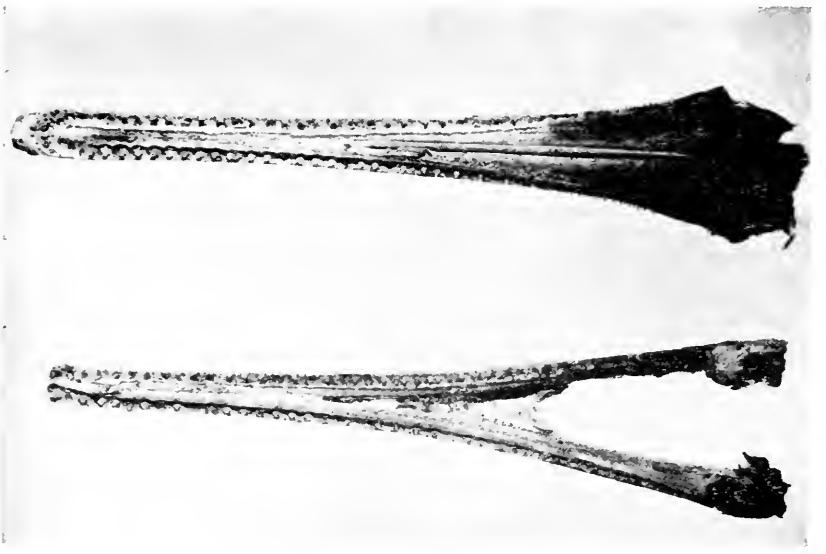

FIG. 6—Tattooing Instruments.

needles set into the end of a stick. The instrument is first dipped into a native medicine and the sore spot hammered on, and sometimes a poultice or medicine is applied afterward. Medicine is always used in conjunction with tattooing. I obtained the following description of such a curing in 1942:

"The instrument Mrs. B. used on me was a round stick on to which had been tied about ten or twelve needles. She got some medicine and boiled it and let it cool, and put it into a cup. Then she told me to lay down on a mattress on the floor. I

laid down and she told me she was going to tap me as long as she could hold her breath, and that I shouldn't cry out. She dipped the needles into the cup of medicine and tapped me on one temple. It hurt plenty, but they start slowly and then pound faster and faster and by that time the spot is numb. Then she did it on the other temple. Each tapping lasted about two minutes because a person can only hold their breath that long. I had a headache and that is why I had her work on me. They also do this for sore joints, rheumatism, or soreness anywhere. I just gave her a package of tobacco. You can give them a blanket or anything. Mostly women do this, but my uncle used to do it." (J. B., Field Notes 1942.)

In another account the tattooing instrument was a portion of a northern pike jaw bound to a springy cedar stick. With one hand the instrument was held over the sore spot, but about a half inch away. With the other hand the teeth were driven into the flesh by snapping the second finger off the thumb and onto the instrument. This was repeated a number of times after which some powdered medicine was placed on the punctured area and a piece of buckskin placed over it and held there. This informant stated that bird down could be used instead of the buckskin.

The purpose of the tattooing procedure, according to my informants, is to pierce the skin so that the medicine will penetrate into the blood stream, and frequently blood is drawn as a result. It was said by one informant that the terrific pain experienced during tattooing is really the soreness leaving the body. It is possible, too, to account for any efficacy of this method in terms of modern medical theory. Any such irritation will attract blood, "the great healer," to that area, and the theory behind the directing of ultra-violet rays on a sore or injured area is that it will set up a mild irritation.

Tattooing, a term somewhat misleading, but one which the Indians themselves use when referring to this practice in English, is rarely practiced at the present time.

Other surgical techniques known to the Chippewa include amputation and tooth extraction. Splints of cedar or heavy birch-bark were bound onto fractured limbs with basswood cord.

The Sweat Bath

While the sweat bath was an important part of the religious ritual of the Midewiwin, and also employed on the hunt for "getting rid of human odors," its chief use was for curative purposes, and this is its only function at the present time. It is employed particularly for such ailments as colds, fevers, and rheumatism. The sweat-lodge consists of a framework of poles

arched in the middle and the ends set into the ground (Fig. 7). This is completely covered with birch-bark or blankets. For the Midewiwin it was built large enough to hold four men, but those built for curative purposes are built with two poles and just large enough for one. When the sweat-lodge is finished heated stones are carried inside, the patient strips and sprinkles water on the stones with a bunch of grass or cedar boughs, creating steam. The water may contain medicine, or may be used alone. In the one instance I observed, cedar boughs had been steeped in the water. According to Densmore (1928, p. 331), "After the bath the person was thoroughly rubbed, warmly wrapped, and put to bed." Densmore continues, "Another method of steaming was used chiefly for rheumatic limbs, and with the water they put any sort of medicine which was supposed to be good for that ailment. In giving this treatment a hole was dug in the ground the size of the kettle containing the hot decoction. They put the kettle into this hole and the person sat beside it, covering his limbs closely with a blanket. A medicine frequently used in this connection was identified as willow (species doubtful). The prepared root was put in hot water and allowed to boil a short time. It was usually cooled before using.

FIG. 7.—Sweat-lodge.

"Dry herbs were also placed on heated stones and the fumes were inhaled, this treatment being used chiefly for headaches. The stones were somewhat smaller than those used in the sweat lodge being 'about the size of a small bowl.' The patient covered his head and shoulders with a blanket, inclosing the stones and inhaling the fumes. A mixture of many varieties of flowers was said to be an agreeable preparation for this use."

SHAMANISTIC TECHNIQUES OF CURING

For more involved illnesses the Chippewa enlisted the services of a shaman. There were two kinds of healing shamans: the conjuror or tent-shaker (jiziki'wi*n*i'ni), and the sucking doctor (wikwajige'wi*n*i'ni). Both enjoyed extremely high status in the band, in fact they were generally the most feared and respected persons in the community, for they had the power to do evil as well as good. "Health and long life represented the highest good to the mind of the Chippewa, and he who had knowledge conducive to that end was most highly esteemed among them." (Densmore, 1928, p. 322.) Shamans were men, with rare exceptions,* and their powers were secured during their vision quest, but remained latent until the person was middle-aged or older before he could actually practice. If he began practicing too young he might lose his power or even his life. Not infrequently a person was both a conjuror and a sucking doctor. Of the two the conjuror had the wider powers, for he not only could magically heal, but also had clairvoyant ability to determine among other things causes of sickness such as sorcery and breach of taboo, and could exercise sorcery himself. The sucking doctor worked on the disease-object intrusion theory, and it was his function to remove the cause of sickness by sucking it out of the patient's body. The tent-shaking technique was perhaps the more dramatic method especially when coupled with skillful ventriloquism, but showmanship was not lacking in the sucking doctor. Both doctors were solicited by means of a gift of tobacco. If the doctor accepted the gift it meant he would undertake a cure at a specified time and receive a fee for his services. Each worked with an assistant who took care of the physical arrangements, and did the

*Although in theory women cannot practice conjuring, Hallowell reports two instances, Canadian Ojibwa, of women known to have used the technique in exceptional cases. They could do so, however, only "after menopause when they are considered to be much more like men." We also obtained several reports of women having performed the sucking cure among the Wisconsin Chippewa.

FIG. 8—Shaking Tent Framework at Lac du Flambeau.

drumming. Both doctors accompanied their singing with a rattle, and the ceremonies were held in the evening or at night.

The Conjuror

The theory and practice of the Wisconsin Chippewa is essentially the same as described in detail by Hallowell for the Berens River Saulteaux in his excellent monograph "Conjuring in Saulteaux Society." One variation is that the Wisconsin tent is not the extreme barrel-shape, but instead, cylindrical, with the framework open at the top (Fig. 8), or the poles joining to form a dome (Fig. 9). It is to be expected that such variations will occur inasmuch as each conjuror must have his tent built according to instructions received in his fasting dream as to shape, number of poles, kind of wood, etc.

The procedure of the conjuror is to call the assisting supernatural spirits into the tent (their entrance causing it to shake) and consulting with them on problems demanding a clairvoyant or prophetic solution. The doctor is thus equipped to determine the cause of illness whether it be natural or any of the five supernatural reasons: sorcery, spirit intrusion, disease-object intrusion, breach of taboo, or soul loss. With this intelligence at his command the doctor is then able to prescribe a cure. It is interesting to note that the conjuror who himself may kill or cause sickness by the technique of soul-stealing sometimes gets involved in shamanistic duels over a patient.

The number of such doctors extant at the present time is meagre. I know of only four Wisconsin Chippewa who have practiced in recent times, and there are none left at the Lac Court Oreilles Reservation. This is very different from the situation at Berens River, Canada, where nearly 10 per cent of the people were known to have practiced tent-shaking in recent times (Hallowell, p. 27). The decrease in numbers in Wisconsin seems to be due not so much to the decrease in demand as to the disappearance of the custom of fasting. The power to conjure was obtained through the fasting dream, and there is only a small group of people at present who are equipped with such an experience. The phrase they use, i.e., "He has no dream," applies to not only nearly all the middle-aged group, but also to nearly all of the old people. The few conjurors that are left seem to be in considerable demand and circulate their services over a wide area. There are records of a conjuror being imported from Lac du Flambeau, a distance

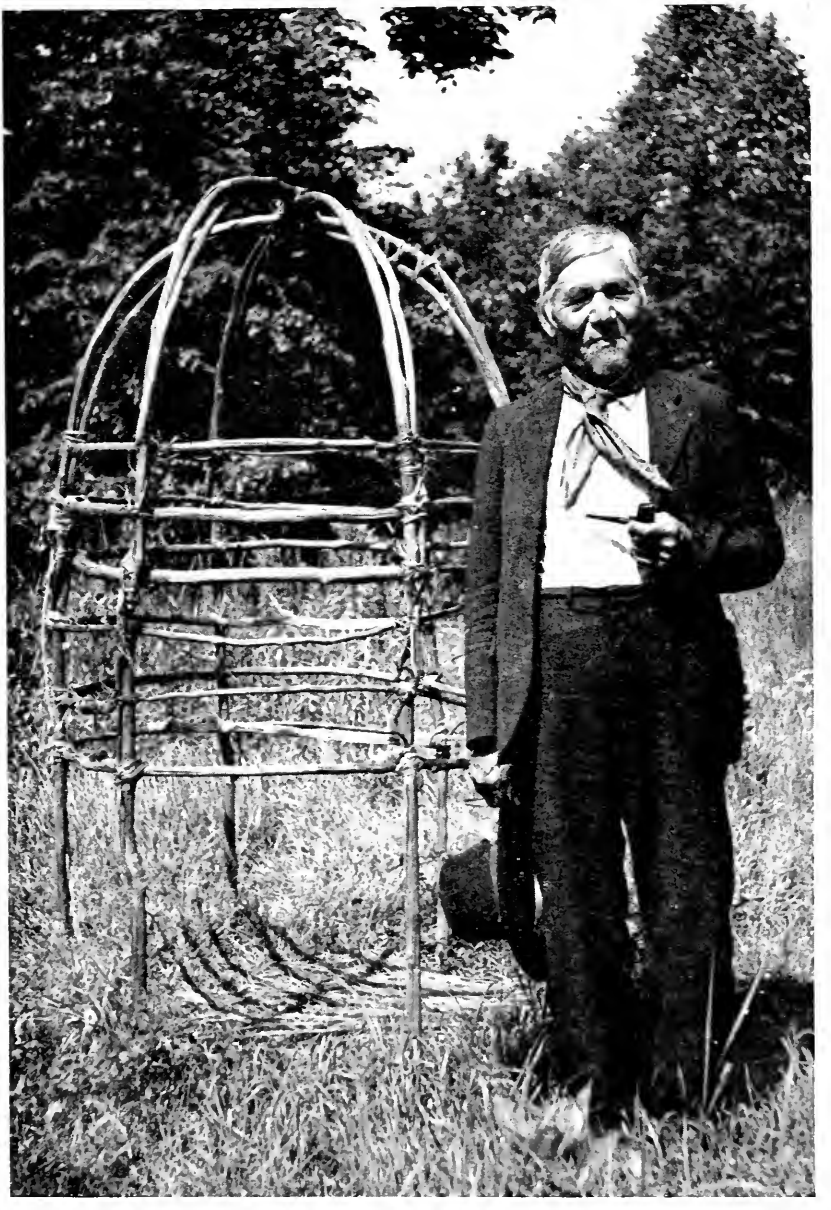

FIG. 9—Shaking Tent Framework and Doctor at Sand Lake.

of eighty miles, or, where the patient could be moved he was taken to Flambeau. A Potawatomi, well known for his conjuring abilities, makes the rounds of the Chippewa Reservations exercising his skill in the role of "guest artist." In one case which I had the opportunity to observe, a woman offered to pay all traveling expenses if I would drive her and her ailing son to a doctor of the St. Croix band some sixty miles away. She had already made one trip there to arrange for the ceremony. The time and expense involved in such procedures is often considerable, and serves to demonstrate their faith in the practice, but the art seems fated to die in the hands of the present practitioners. The following is a description of the ceremony I witnessed in 1942:

"Laurence Butler, about 25 years old, was working in a defense plant in Detroit for a year and a half, until he was called into the army. His examination showed incipient tuberculosis. He went to the Municipal Sanitorium in Chicago and stayed there for six weeks. His mother, Mrs. John Butler, wrote him a letter and asked him to come home and to go to this Indian doctor, John King at Sand Lake, a jiziki'*wini*'ni. Laurence came home Sunday, and Tuesday we were asked to drive them down to Sand Lake.

"We got there about 2 P.M. Wednesday, and sat around waiting for dusk. Mrs. Butler told John King what she wanted him to do. Talking to Laurence, we learned that he had never seen a ji'zikən shake and did not know much about it. He didn't believe much in the efficacy of the jiziki'*wini*'ni and was apparently going through the whole thing mostly to please his mother, although he said he had heard of people being cured by these doctors, and he admitted that he had nothing to lose by it.

"We were told, at first, that we wouldn't be allowed to watch the curing, that they never allow any white people around. John King said he couldn't work with people of another race around (gawe•sa' — I can't do it). Mrs. Butler talked to him, and told him that we had brought them down, so he changed his mind and consented to our watching, providing we gave tobacco and didn't take any pictures or tell any other white people about it.

"At dusk, about 8 P.M. Charley Littlepipe, the škabe'wis or runner, went out to fix up the ji'zikən. Charley Littlepipe had been invited to come up by Mrs. Butler, who had gone down to his house about seven o'clock, and had given him a package of standard tobacco, and told him what was going to happen. The framework was already built and had been used previously. It consisted of six ironwood saplings set into the ground and six smaller pieces going around. The ironwood stakes were set about a foot and a half into the ground, bent over the top and tied to the opposite stake about half way down. They were 1½ inches thick at the base. Six ironwood branches, three-fourths inch in diameter, were bound onto these, starting about a foot and a half up from the ground. They were about four inches apart and left a gap of about 2 feet at the top.

"The structure was just about 6 feet high and 2½ to 3 feet in diameter at the base. It was tied together with wi'gop — basswood twine, and shook rather easily. John said no dogs were allowed near it; they were all shut in the house.

"Charley shook the framework to test it and replaced some of the wi'gop, binding it at various places on the framework. Then he bound bands of sleigh bells on four of the uprights near the top. He tied them tightly with wi'gop and tied one big leather band with some larger bells across the top (on the two remaining uprights).

"He went into the house and brought out six blankets and a small pail of wooden skewers. He said these blankets were used for the ji'zikən. He laid one blanket on the floor inside on some hay that had been placed there. Then he wrapped four of the blankets around the sides, one at a time. He fastened them to the framework and to each other with the wooden skewers which were about 4 to 5 inches long with one end pointed. The other blanket was thrown over the top and fastened down to the others. There was no entrance left.

"Charley worked in a very efficient and business-like way, as though he had done it many times before. He knew just what to do and how to do it, and the whole process only took about 15 minutes. When he had finished, he picked up the can of wooden skewers and went into the house and told them it was ready. He came out and laid out a blanket next to the ji'zikən and put a bowl of tobacco on it and a pipe in that, and then he went over and sat down with the Chief Drum he had brought.

"Shortly after that John King came out followed by the three women who help him on such occasions; his wife, Maggie Littlepipe, and her daughter, each of whom carried a rattle made of a wooden stick about 2 feet long and 2 inches wide with numerous tin cones nailed on which jingled when shaken. John pushed up the blankets in one place and crawled into the ji'zikən. The women filed around the ji'zikən, grabbing it several times on the way and shaking it. Then they sat down on a bench.

"When everyone was seated, the wigwam began shaking very slowly. This seemed to be a signal for Charley to start drumming rapidly on the Chief Drum and women to begin shaking their rattles. Soon the ji'zikən began shaking rather violently, and then slowed up again, and shook hard again. This went on for about five minutes (this is when the spirits come into the ji'zikən). Then a disguised voice was heard and the drumming and rattling stopped.

"The voice (supposedly the spirit bebo'kowe) said, 'atai'ya' (holy smoke, or goodness gracious), what's been going on here. Look at my nošiše (grandson, referring to John King, who had been drinking rather heavily). That's the work of akiwe'si (Pat Kasabin). At this all the people watching started to laugh. Then the spirit went on and said, 'What's that white man doing here?' and the people laughed again. John Kasabin said that the white man was only there to watch and had paid well for it (referring to the tobacco we had given).

"Then the spirit asked, 'Why did you call me here?' Mrs. Butler answered (after being prompted by Mrs. King) and said she had brought her boy here and wanted him, the spirit, to find out what was wrong with him and if he had any medicine he could tell her about. Then Charley filled the pipe on the blanket and lighted it for Mrs. King and passed it to all the others. They each took a few puffs and then he handed it in to John King.

"The spirit said, 'All right, I'll try. I've helped a lot of Indians and I'll see what I can do for this one.' The spirit spoke to Laurence and told him to come closer. Laurence moved to a seat about 2 feet from the ji'zikən. The spirit asked Laurence if he could understand Chippewa and Laurence was slightly confused. Mrs. Butler told him to answer the spirit, so Laurence said that he could speak Chippewa (all the talking was, of course, in Chippewa).

"The spirit then said, 'If you believe in me, I will tell you the truth, but if you don't, I will tell you lies. Come closer and I will look at you.' Laurence leaned a little closer, and the spirit said, 'That isn't bad. That sickness will leave you.' Mrs. King then told Mrs. Butler to ask the spirit to work on him, so Mrs. Butler spoke to the spirit and said, 'I would like to have you doctor him and boda'nzik (blow on him) and tell me if there is any medicine that you know will help him.'

"The spirit said, 'Drum for me and I'll see what I can do.' So Charley started drumming and the women shook the stick rattles, (these are used in the Chief Dance)

and the wigwam began to shake hard and every once in a while the sound of blowing was heard. (Whoo', unvoiced. The sickness is supposed to be blown away from the person like this.)

"The wigwam shook for a few minutes and then quieted down, the drumming stopped, and the voice of the spirit was heard again. It said, 'That isn't a bad sickness and you can get over it by taking medicine.' Every so often a spirit would talk in an unintelligible growl, and John King would say ani'ŋgwənə (all right then), as a sign that he understood what the spirit was saying in that special spirit language.

"Mrs. Butler then asked what kind of medicine she should get and who should make it. The spirit answered, 'Anyone who knows good medicine could make it.' (Usually the spirit will name a certain medicine and name the person who should make it). Mrs. Butler told the spirit that she had been using some of her own that's all.' Then he told Laurence to take good care of himself and use the medicine.

"Then the spirit said, 'Now then, in regard to that preacher (gagikwe'winini) medicine on him, and the spirit said that was good. Then the spirit said 'miyu' — out there, the one who is checking up on the Indians. Have him come up close here and I'll tell him all about the Indians in a short time.' He meant me, but Mrs. Butler interrupted and told him, 'No, don't be concerned about him. He is only here because he brought my boy here. He is only watching!' The spirit said, 'All right then, we'll go home.'

"The wigwam began shaking, and when it shakes hard it means that a spirit is leaving. There must have been at least two spirits there, one who talked clear Chippewa and one who talked Chippewa in a growl, that no one could understand except the doctor. No drumming went on while the spirits left, and the wigwam shook hard a few times, then slowed down and stopped. The people got up and started home and Charley took all the blankets off the ji'zikən. John King stayed inside the wigwam in a kneeling position until all the blankets were off, then he crawled out and came over to me, 'Can you do that?' he said, in Chippewa, and I said 'gawi'n — no!' And he laughed.

"Mrs. Butler went into the house for a few minutes and then we took them home. She had brought a pint of whiskey for the doctor. They usually pass the bottle during a curing like this, but John King had been drinking wine. Mrs. Butler had gone down to Sand Lake to see him about two weeks before this, and had given him tobacco, a blanket, and two half-pints of whiskey. She had told him she wanted him to work on her son. He had said that he would and told her to bring her son down, but not to bring any more blankets or anything except a pint. There was no date set.

"The spirit that spoke was bebo'kowe. He's only about 4 ft. tall, with hair all over his body. He's a manido, some people have him for their guardian spirit. There is a special song that goes with him, they sing it at the Chief Dance and for the ji'zikən." (Field notes 1942.)

The Sucking Doctor

The sucking cure is based on the theory of disease-object intrusion. The doctor effects the cure by sucking from the patient's body the foreign matter responsible for the sickness. The main features of the curing ritual, as observed in five sessions conducted by two different doctors are as follows: A sick person presents tobacco to a known practitioner who accepts the gift if he intends taking the case, and arranges for the time and place. The ceremony is held indoors and usually after sundown, although I did see one

afternoon session. At the appointed time the doctor, his assistant or runner (škabe'wis), and the patient assemble. Spectators are allowed, but dogs are forbidden from the vicinity, as their barking while the doctor is swallowing the tubes might cause him to choke. The doctor's personal equipment consists of a gourd or tin-can rattle, and two or three tubes kept in a buckskin bag or cloth wrapping and only exposed at curings (Fig. 10). The two

FIG. 10—Sucking Doctor's Equipment.

tubes used by one doctor were sections of canon bone of deer about 3 inches in length, and three-quarters inch in outer diameter. The other doctor used three .45 caliber cartridge cases with the ends removed. These were just two inches in length and .45 inch in outer diameter. The assistant is equipped with a tambourine drum. When the people have been seated the doctor removes the tubes from the wrappings and places them in a shallow dish, usually a pie tin, into which has been put water, maple-sugar water, salt water, or whiskey according to the doctor's instructions. As each doctor obtains his instructions from a spirit through dreams, there are many such minor variations in equipment and technique. The patient, who may or may not be partially stripped, lays on a blanket placed on the floor. Tobacco is passed around with each person taking a pinch. The tobacco is

dedicated to the spirits by the doctor who then relates part of his fasting dream and enlists the aid of one or more of his spirits to help him in this curing. A song to the assisting spirit is sung by the doctor while shaking his rattle and to the drumming of the assistant. During the song the spirit enters the body of the doctor. One of the tubes is "swallowed" and regurgitated by the doctor who kneels over the patient, locates the origin of the sickness, sucks it out through the tube, and spits it into the shallow dish along with the tube. At this point the drumming stops abruptly to indicate the end of this phase, the dish is passed around for inspection, and if foreign matter has been forthcoming, the contents of the dish are thrown into the fire. There may be several such suckings before any matter shows up in the dish, and in the case of several failures the patient may be asked to return the following evening when another spirit will be tried. A curing ritual may last anywhere from a half hour to two hours depending upon the wishes and successes of the doctor. The patient rewards the doctor with gifts such as clothing, blankets, whiskey, guns, etc. The following is a detailed account of a curing witnessed in 1941 in which two patients were treated.

"We arrived at the patient's house about 7:15 P.M. and the ceremony began shortly thereafter. The doctor was wasegi'žik, a man over eighty, nearly blind, and from the nearby Bad River Reservation. He has been living at the patient's house, treating her at various times. A blanket and pillow had already been laid out on the floor and on a cloth nearby was a pie tin, a cup of sugared tea, and a piece of buttered bread. Shortly after our arrival the doctor took two brass tubes (made from cartridge cases) that had been wrapped in a blue handkerchief and tied with string, and put them into the pie tin. The first patient lay down on the blanket and wrapped a thin cloth around the lower part of her body. The assistant passed tobacco to each person present after which the doctor made a speech dedicating the tobacco to the ma'nidog and asking for their help. Patient number two, in whose house this was being held, gave a shot of whiskey to each person (including the five spectators). The whiskey was dedicated to the ma'nidog by the doctor, and some was poured in the pie tin on the floor after which each person, except the doctor, got down on his knees and took a sip. It was later explained that we had to drink like a bear because the doctor was using the bear ma'nido to assist him. The doctor began shaking his tin can rattle and singing while the assistant beat the tambourine drum. During this song one of the spectators was selected to eat the food on the cloth, and at the end of the song another shot of whiskey was passed around. The doctor sang another song during which he hiccoughed and slightly convulsed indicating that the bear spirit had entered his body. At the conclusion of the song the doctor got down on his knees and crawled the few feet to the patient who had meanwhile turned over on her stomach. He still held the rattle, and the drumming continued. He swallowed the tube, blowing into it first, with great swallowing gestures and convulsing movements. He shook the rattle under his left armpit whenever he swallowed the tube and intermittently during the sucking. He then blew through the tube over the patient's left leg at the thigh downward toward the foot. As he reached the foot he swallowed and regurgitated the tube and sucked. He did this twice more and bent over the pie tin with the tube projecting from his mouth, blowing saliva into the

tin, and finally spat out the tube, and the drumming stopped. Patient number two, in constant attention to him, picked up tin, threw the contents into the stove, washed the tin and the tubes, and replaced them. She passed around another shot of whiskey. The patient lay very still during the treatment. She was being treated for sore legs, apparently rheumatism. The doctor said he could see something like a light near her navel, and that was causing the sickness. After about five minutes of general gossiping the doctor sang, and sucked in the region of the buttocks, but spat out nothing. He said the cause of sickness was too tightly lodged, and that he would have to try again the following evening. The patient got up, put on her moccasins, and took a seat. Another shot was passed around, and there was about a seven-minute intermission. It was now 8:15 and a lamp was lit.

"The second patient lay down on the floor. Tobacco and whiskey were passed followed by a speech in which the doctor told of how hard he tried to have a vision and learn something when he was a boy. Every morning when he awoke there would be a plate of food, a piece of charcoal, and a switch. He chose the charcoal rather than the food and switch, would rub some on his cheeks and go out fasting for a half or the whole day. When he was a young man he went out on his long vision quest to a sand bluff near Spooner, and there the sun came to him and helped him. The doctor sang a song after which whiskey was passed, the tin filled with whiskey and drunk as before. The first patient ate the food, and after another song the doctor kneeled over the patient who was lying on her back and covered completely with a piece of cheese-cloth. He blew and sucked on her foot, turned her on her side and sucked on her hip, then on her forehead and neck, and spat mucous and the tube into the dish. After a brief intermission and the passing of whiskey he resumed sucking, successively on the forehead, eye, neck and breast, spat out mucous which was thrown into the fire. There was the same convulsive swallowing and regurgitating the tube before each sucking, examining the patient through the tube, and blowing through the tube as done in the case of the first patient. When it was over the patient got up, the doctor put his tubes away after they had been washed, and a social shot was passed. It was now 9 o'clock. The doctor told us he would treat them both the next night and that we were welcome to come. He said he would call on šawano'binesi (bird of the south) a more powerful spirit than the one he used tonight, and that he thought he could dislodge the first patient's sickness. (The next night he apparently sucked a tiny pebble from her foot. It was put into the fire along with an offering of tobacco). The first patient has been sorcerized and the doctor had told her who had done it. Her mouth was becoming twisted and paralyzed. She also had bad eyes. We learned later that besides providing room and board for the doctor she had given him a fur coat for treating her." (Field Notes 1941.)

We witnessed a curing by another sucking doctor, a man over ninety, also a mide' priest, and the most feared and respected man on the reservation. His technique was generally similar to the other, but there were some differences which can be noted in the following field-note account.

"We arrived at the doctor's house at 8 P.M. There were three Indian spectators, two of us, the doctor and assistant, and the patient, a man of seventy-five. The doctor related his fast at some length, and sang with his rattle and drumming of the assistant. The patient had brought a pair of tennis shoes and a package of tobacco as gifts. Two bone tubes had been put in a pie tin partially filled with salt water and covered with a handkerchief. The doctor swallowed one of the tubes after bending over the patient who was lying on a blanket on his back. He sucked several times near the navel and once on the groin, sometimes regurgitating the tube and sometimes not. Spat out the saliva after each sucking as a rule, and finally spat out tube, the drumming stopped, and the first attempt was over. After a song and another series of sucking he spat out

a small piece of white stuff which we all examined with a flashlight. The doctor said he thought he could get the rest of it out the next evening. The assistant carried the pan outside and threw it into the brush. A bowl of rice and some buns were placed on the blanket and we all ate. The doctor sang four songs, we had a few shots of whiskey, and were invited to return the next night. The same people were present the second evening, and the doctor spoke saying he was going to use a stronger spirit tonight. The patient laid on his back on the blanket with his torso bare. After another long speech and song the treatment began. He swallowed the bone, gagged until we became worried, but finally coughed it up. He sucked on the same part of the body as before, with the bone well into his mouth and his lips touching the body of the patient (Fig. 11). On the second attempt he had one of the women insert the bone in his mouth, and had another lady shake his rattle. After several suckings he asked

FIG. 11—Doctor Sucking on Patient.

his assistant to get a larger bone tube hidden under the bed. He unwrapped it, swallowed it and on the first sucking attempt got three or four pieces of white stuff which were spat into the pan. He sucked several times more and stopped. We inspected the contents of the pan which were again thrown outside by the assistant. The doctor said he got it all out. He said that a woman from Chief Lake had sorcerized the patient, and that he was sending that sickness back to her to see what she could do with it. The patient gave him two packages of tobacco and a pair of gloves. The doctor sang four songs 'to scare the sickness away from here' but no food served this time." (Field Notes 1941.)

The Wabeno

Although I could discover no trace of it among the modern Wisconsin Chippewa, both Schoolcraft and Hoffman report the existence of a third

class of shamans termed the Wabeno (Eastern men). According to Hoffman (p. 156-7) a Wabeno also receives his power through his fasting experience and "evil manidos favor his desires, and apart from his general routine of furnishing 'hunting medicine', 'love powders' etc., he pretends also to practice medical magic." He too was an individual practitioner, and his dramatic forte was pyrotechnical legerdemain such as the handling of red-hot stones or burning brands with the bare hands without injury. This took place during all-night ceremonies in conjunction with singing, dancing, and feasting. Among several of Schoolcraft's (Vol. 1, p. 356) informants it was believed to be of modern origin and a degraded form of the Midewiwin. Information concerning the Wabeno, however, is both scanty and nebulous, and even Hoffman (p. 156), writing more than sixty years ago, states, "Their profession is not thoroughly understood, and their number is so extremely limited that but little information respecting them can be obtained."

PROTECTIVE AND PREVENTIVE METHODS

Charms

The Chippewa do not distinguish between medicine and charms. Their term muški'ki which they translate as "medicine" includes both categories In this paper, however, I am employing the term medicine to include only those substances administered directly to a person for curative or malevolent purposes, and charms to include those used to affect man or nature without material contact.

Charms, like medicine, were usually obtained by purchase from another individual. They were used to bring good fortune in hunting, fishing, trapping, gambling, war, and love; to protect the individual from disease or bodily injury; and for malevolent purposes. The vast majority of charms were concerned with the food quest, with hunting charms being especially numerous. In most instances charms were carried in small buckskin packets on the person, but love or malevolent charms were commonly worked in the home by applying them to clothing, hair, or any personal article of the person they wished to affect. "Songs were not used with the working of . . . charms, the efficacy being secured . . . by 'talking and praying.'" (Densmore, 1928, p. 375.) Examples of protective or preventive charms are:

1. Flag-root carried on the person to keep away snakes. As there are no poisonous snakes in this area, the purpose of the charm is apparently based on either a dislike of snakes, per se, or a fear of their supernatural powers.
2. "Dogbane was used as a protective charm against evil influence or bad medicine.' " (Densmore, 1928, p. 375.)
3. "Seneca snakeroot was used as a charm for safety on a journey . . ." (Densmore, 1928, p. 376.)
4. The root of a species of milkwort, *Polygala senega L.* was carried on the person for general health and safety on a journey (Densmore, 1928, p. 376).

Two recent uses of charms are as follows:

Before E. B. left for school at Flandreau, S. D., his stepfather gave him a charm to wear around his waist under his clothing to keep him from harm and misfortune while he was away. I asked to see it, but he said no one was supposed to look at it (E.B., Field Notes, 1944).

Mrs. J. Q. keeps a piece of the interior of a section of beehive in her pocket whenever she goes to an Indian gathering. That keeps her all right while the gathering is going on. It spoils the effect of any bad medicine that might be around, and it doesn't hurt anyone (J. Q., Field Notes, 1942).

A Chippewa also had to take into consideration the unintentional, but nevertheless harmful, consequences of charm-using by others. For example: "They say when a man goes hunting with that medicine the fellow behind him gets all broken up and can't walk. That happened to my brother. He was hunting and the one in front had the hunting medicine. He just fell down and couldn't walk. Some hunters brought him in. You get over it all right in a few days, but it's bad." (F. Q., Field Notes, 1943.)

Dream Fetishes

These fetishes (aišiu'wi*n*ə'n) are sacred, personal articles kept by a person throughout his life as guardians against any harm or misfortune. They are made or obtained according to instructions received by a person in his own fasting dream, or through a dream of a close relative or a w*e'e* who presents the article to the person in infancy or childhood. An aišiu'winə'n may also originate as the result of intelligence received by a conjuror at a

shaking-tent seance. Such objects receive special care and handling, being hung on the loop of the cradle-board of a child and commonly hung over the bed of an adult. The person must never part with the object, and if it is accidentally destroyed, or worn out, it must be replaced with a counterpart. These articles were commonly taken to religious ceremonies or might be carried on a long journey, and upon the death of the person they were buried with him. The only example I saw of an article definitely identified as an aišiu'wɨnə'n was a lacrosse racquet with a braided strand of red and green yarn attached. I obtained the following account of it.

"J.M. cried too much when he was a kid, so his parents went to old man Batak to find out what was wrong. The old man built a ji'zikən, and started it shaking, but soon broke out in laughter. He had seen that the child wanted a lacrosse racquet, and that was why he was crying. So his father made a tiny lacrosse racquet and his grandmother put the yarn braid on it, and they hung it on the loop of his cradleboard just over his head where all toys are hung. J.M. stopped crying and the old man said he should always have a lacrosse racquet with that braid on as long as he lived. When he got bigger he got a big lacrosse racquet with braid on, and that is the one hanging on the wall there." (J. M., Field Notes 1942.)

Miscellaneous Protective Techniques

A still common method of protection against property damage or physical injury due to wind-storms is by making offerings of tobacco to the thunder-birds. When a storm comes up an Indian will sometimes put a piece of cut plug tobacco on a stump in his yard as an offering, or he may throw a pinch of tobacco in the fire. In some cases he will talk to the thunder-birds asking protection, but this is not necessary, as the offering itself is sufficient. One informant told me with great delight of a time he was camped with a party in Minnesota. A big cloud came up and the Indians knew the thunder-birds were coming and they threw tobacco in the fire. The storm blew over many houses, but none of the wigwams was harmed. Later some white people asked why this was, but the informant only smiled. He confided to me that white people don't know about thunder-birds; that only Indians could thus protect themselves.

An apparently modern protective device is to hang identification feathers. I noticed some turkey and chicken-hawk feathers hanging from a nail over the door of a house. My informant told me they really should be eagle feathers, and that is their way of telling the thunder-birds that an Indian lives there, so the birds will not harm them when they bring storms. J. S. has a feather tied on his car for this purpose.

A pinch of tobacco was commonly dropped in the water before setting out on a fishing expedition or trip as an offering to insure a safe journey, but as far as I could determine, this is no longer done.

Observance of Taboo

Another means of preserving individual health was by the faithful observance of certain taboos. In some instances a breach of taboo affected the transgressor, but more often it resulted in injury to another person. The majority of taboos in Chippewa culture did not concern health, but in two categories, menstrual and mourning, they were not only associated with bodily injury, but could be lethal.

Menstrual Taboos

The Chippewa believed that contact with a menstruating woman or anything she touched was harmful. "Those that touched her or anything that she had handled such as food, water, or clothing would become very sick. She even had to be careful about touching herself. Formerly such girls used sticks to scratch their heads or other parts of their bodies because using a comb might cause the hair to fall out. Scratching the body might cause the finger nails to drop off or raise blisters on the skin." (Kinietz, 1947, p. 125.) Girls received instructions in this taboo during their puberty fast at their first menses. They were isolated in a special hut for a week or more during which time they were brought food but had to cook it on their own fire and eat it in separate dishes. They were told not to bathe in the lake or it would kill the rice crop. They were told that a menstruating woman must never step over a young child or men's clothing for sickness or even death would result to that child or man. A young married couple was told not to have intercourse during the catamenial period of the woman or the man would get sick and might even die. It is said that a menstruating woman even crossing the path of a man could do him harm. One informant stated that if a woman was mean enough she could put some menstrual blood in the food or clothing of a man and cripple him, but he knew of no instance of this ever having been done. We learned of the case of a woman who stepped over the cap of her son. She steamed the cap, and the son wore it, but he got a sore eye, then paralysis of one side of his face, and he finally died (D. O., Field Notes 1942).

Mourning Taboos

A person in mourning is not allowed to touch children until after a removal of the mourning ceremony. During this period the mourner's touch may produce sickness or even death to the child. It is believed that G. B. who is paralyzed on one side got that way because a woman in mourning picked him up when he was small. The Chippewa have a great love of children and it is probable that this taboo was rarely broken, and then only by accident.

Destroying the Straw Man

Perhaps the most interesting method of protecting the health of the community or an individual is by means of sympathetic magic employed by a group. By the act of obliterating a straw man made for the purpose it is believed that an impending sickness will be obliterated.

"The ceremonial pattern is simple. A person is warned by his guardian spirit through the medium of a dream that sickness is about to descend upon the community. The person notifies the community by sending a runner with tobacco, the common method of invitation. The runner presents some of the tobacco (a bit of cut plug, or Standard) to each family, and tells them when and where to come, and to bring equipment for what they are going to do (wiməsin ʾškibiʾjigən — we are going to make an image). At the appointed time the people assemble bringing food, tobacco; the men with guns; the women and children with knives, clubs, and axes. The Dreamer then tells the people his dream and why they are doing this. The food is laid out on the floor, tobacco is passed around and smoked, and the Dreamer gets up and dedicates the food and tobacco to the maʾnidog (spirits) and asks their help in doing this thing. The people then eat, it being believed that the food and tobacco are really offerings which go to the maʾnidog. After the fast the men take their guns and the women and children their clubs, knives, and axes, go outside and cautiously approach the straw man which has been set a short distance away from the house by the runner. The figure is made of straw or hay (to be inflammable) varying in height from about two to four feet, and dressed in a miniature man's costume. It is either made by the runner the night before, or by the women just before the ceremony begins. . . .

"As the people approach the straw man, the Dreamer gives the signal to the men to shoot it with their shotguns, he joining them. The women and children then rush up to club it, cut it, and chop it to bits. The remains are gathered up by the people or runner, placed in a pile, and burned. They may return to the house where the Dreamer thanks them for their assistance." (Ritzenthaler, p. 320.)

Although ordinarily done to avert sickness in the local community the system may have wider application. During World War II a man who had heard of the high incidence of malaria among U. S. troops in the South Pacific dreamed that he should help them by destroying the straw man, and this was done.

Sympathetic magic is not foreign to the Chippewa, but ordinarily it is a secret individual undertaking by a shaman. The destruction of the straw man is the only instance I know where it was employed as a community venture.

The Offering Tree

Another group attempt to ward off impending sickness is through the technique of the Offering Tree (bagi'jigana'tig). Here, too, an individual is warned by his guardian spirit that a sickness is about to visit the community. The person sends invitational tobacco to a number of people by a runner who tells the people to come to a certain place at a certain time "to make an offering" of clothes. At the appointed time the people assemble with tobacco, food, and articles of clothing. The food is laid out, and tobacco passed, both of which are offered to the ma'nidog of the air, particularly the thunder-birds (bine'siwəg) by the dreamer, or someone he has asked to speak for him. The dreamer relates his dream to the people, tells the ma'nidog that this offering of clothing is being made to them imploring their intercession to keep that sickness away. After the feast the clothing brought by the participants is assembled and hung on a tree or pole along with tobacco. In the one case I saw the clothing was tied in bunches and hung about two-thirds of the way up a slender, eighteen-foot tall pine tree from which all the branches had been trimmed except for a few at the top (Fig. 12). In other instances a slender pine tree is cut down, peeled, and trimmed just leaving a tuft of branches at the top. The clothing and tobacco are tied near the top and the pole either leaned up against the house, or set upright in the ground. It is said that the clothing should be articles worn close to the body, not overcoats or the like. The usual articles hung on the pole or tree include underwear, pants, shirts, dresses, and aprons. They must be left hanging for at least four days, and during that time they are accepted by the ma'nidog. In some instances they may be left up until they disintegrate; in other cases they are taken down on the fifth day and used for dish-rags. The former seems to be the older practice. Occasionally a Chief Dance will follow the ceremony of clothes hanging.

A variant of this practice is a case reported to have occurred some years ago at a settlement about fifty miles from the Reservation known as Sand Lake. A person was warned by his guardian spirit of a coming plague. He assembled some people, and after the feast the bundle of clothing was put

FIG. 12—Offering Tree.

into a boat. The dreamer and his assistant rowed out into the lake some distance and threw the clothing and tobacco into the water as an offering to the water spirit. The informant added that this is rarely done because most people believe the water spirit to be an evil one.

This completes the battery of native methods the Chippewa have devised to combat sickness. With the gradual loss of the old culture there has been a decline in the belief in the primitive etiologies of disease, and in the use of primitive curative techniques, with an increasing patronage of the modern hospital. The surprising thing, however, is not the lessened use of all the old native curative techniques, but the fact that they have survived throughout three hundred years of white contact.

The Modern Hospital

Previous to 1931 the Chippewa at Lac Court Oreilles depended largely upon Government Field Physicians and Nurses for medical care. More serious cases were transported to the Government hospital at Tomah. A Government nurse was stationed on the Reservation for ten years as a health inspector. She treated minor ailments, and arranged for the hospitalization of the more serious cases.

In 1931 a Government hospital was erected near the town of Hayward. It is a modern brick building (Fig. 13) housing 45 beds and 10 bassinets. Service is provided free for any Indian living on the Reservation, but some of the people object to the fact that the hospital was not built on the Reservation, and a journey of from 15 to 25 miles is necessary. Transportation, however, is supplied for the more urgent cases by either the Indian Agent or by a field car sent from the hospital. The normal staff quota should consist of a Medical Officer in charge, a field physician, a field nurse, six nurses, and one head nurse. In 1947, however, there was no field physician, and only four nurses and one head nurse. At one time they also had on the staff a dentist and an eye, ear, nose, and throat specialist. At the present time a field dentist comes to the Reservation about once a year. The former Field Physician, assisted by a Field Nurse, had an office in Hayward and was on call at any home on the Reservation. He also examined the school children once every year and arranged for clinics at which vaccinations and innoculations were given, and occasionally x-rays were taken. At that time there was also a health education program consisting of movies on such subjects as tuberculosis and post-natal care of children.

FIG. 13—Hayward Indian Hospital.

Besides the local facilities there is a U. S. Government sanitorium at Walker, Minnesota, where tubercular patients are sent for treatment. The few mental cases are sent to the State Hospital for Mental Diseases at Mendota. There is also some patronage of private doctors and dentists in the nearby towns, but these are services which the majority cannot afford.

Although there is a certain amount of dissatisfaction with the services and methods of the Government hospital, the majority of the people are not hesitant about utilizing the institution. For a sample five-year period (1933-1938) there was an average of 862 cases admitted per year. They have been fairly well conditioned to the idea of having their births at the hospital with an estimated 85 per cent of the children born there, and only 15 per cent handled by Indian midwives. This factor has undoubtedly been important in reducing the rate of infant mortality, but the figure is still high. Some of the older people are still suspicious of the efficacy of modern medical science, and persuasion is sometimes necessary to get them to enter the hospital, but that the old prejudices are breaking down is attested to by the fact that even medicine men and Mide priests have, on occasion, patronized the hospital. This does not mean that native cures are necessarily being

replaced. In fact, in many cases native methods will be used before or after hospitalization. The hospital is received into the culture as one more curative device, and upon failure of that device the patient may take recourse to native methods. Certain people take great delight in citing cases where, after the hospital had failed to effect a cure, the patient was taken home and cured by Indian doctoring. The dangers of simultaneous use of Indian and modern medical therapeutics were recognized by Miss Gardner, a former field nurse who said she had always told a patient "Either take my medicine or your medicine, but don't take them both."

One of the problems at the hospital is that of keeping a patient long enough to cure him. The Chippewa, with their love of the out-of-doors, are not fond of being confined inside for any length of time. Also, their desire to be among their own friends and family may reach the compulsive stage where a patient just walks out and returns home, utterly disregarding the instructions and advice of the Medical staff. Cases such as the following are not uncommon:

> A.S. refused to stay in the hospital even though she had bronchial pneumonia. She had her husband take her home where she was seated for four days by two old ladies, but died shortly after (Field Notes 1943).
>
> V.G. expecting a baby at any time, was taken to the hospital for delivery, but she got lonely and walked the mile and a half into Hayward where she had her husband come and take her home (Field Notes 1943).

The problem of keeping a patient in the tuberculosis sanitorium for the long period often required for cure is especially great.

Part Two
The Cause and Background of the Attitude

Thus far, the discussion has been concerned with an analysis of the aspects of culture in which the Chippewa have exhibited a preoccupation with health. This section will deal with an analysis of the reasons for this interest in health. The most obvious problem that arises is how much real reason is there for such an interest. The analysis of primitive culture by anthropologists has clearly revealed the fact that necessity does not always determine the cultural interests. Man is not necessarily a rational being and many social cynosures seem to have no logical basis. Thus there is no actual necessity for the elaborate social organization built up by the Australians. They could survive as well with a simple system. An elaborate death cult as expressed by the early Egyptian culture or the prehistoric Hopewellian peoples of the greater Mississippi Valley does not necessarily mean that the cultures were threatened by oblivion. Why one group like the Hopi develop a rich religious complex, while another group, like the Pima, living under similar physical conditions, almost ignore the religious phase, cannot be explained in terms of necessity.

Focusing again on the Chippewa, the first question to be considered is how much of the preoccupation with health is merely a cultural interest, and how much is a reflection of the actual situation. In other words, are the Chippewa actually sickly people and is their interest in health a direct response to that situation, or is health merely another unexplainable cynosure?

1. THE MODERN HEALTH SITUATION

An analysis of the amount and types of sickness and longevity rate in recent times was carried on by two methods: (1) interviews with field and hospital nurses and physicians, and, (2) by an examination of the health records at the government hospital.

The hospital records revealed some rather startling facts which are convincing evidence that the interest in health is based on a serious health

problem. To begin with, the hospital records showed that for the five-year period from June, 1934, to June, 1939, there was an average of 862 cases admitted per year. With a population of 1,700 Indians on the reservation this means that the number of cases hospitalized each year was just about half the total population. The number of cases admitted to the hospital includes a few whites (accepted in emergency cases) and a few from other reservations, but this figure is offset by the number of Lac Court Oreilles people hospitalized at other institutions, such as the Walker Sanitorium.

This figure does not mean that all cases admitted were persons suffering from sickness or disease. Over this same five-year period there was an average of ninety-four maternity cases per year. The balance must be considered as enrolled because of illness. There must also be taken into account the fact that some people suffering from even serious illnesses will not go to the hospital because of prejudice, and the number of tubercular patients who should be hospitalized but refuse. For example, in 1934, ten out of the seventeen known active T.B. cases among Indians in Sawyer County were not in a sanitorium (Wis. State Board of Health, 1943).

Compared to the average number of people hospitalized in the United States for one year—one out of five (A.M.A., 1946), the Chippewa ratio of one out of two is significant. The fact that the Chippewa are provided free hospitalization and thus can utilize this advantage more frequently than other lower economic groups in the general U. S. population may mitigate the significance of the wide gap between the two ratios to some extent, but even taking that factor into consideration, the Chippewa figure is an imposing one.

Mr. J. B. Townsend of the U. S. Public Health Service states (p. 32): "In general, the Indians as of today have about the same disabilities as the white race. The tuberculosis rate is higher, they have more trachoma, and to some extent more venereal disease, the last depending upon the location of the tribe." In general this holds true for the Chippewa except for the venereal disease rate which is about the same as for the general population. Trachoma, once a fairly common disease, has been brought under control due largely to the fact that the great majority of children are born at the hospital. Dr. Adams stated he encountered only about twenty-five cases of trachoma in his nine years (1931-1940) at the hospital. The sulfa drugs, a specific treatment for trachoma, are now the potent weapon of the hospital.

Mental disease among these people is comparatively rare, as is cancer,

but the latter may be due to the fact that fewer reach the cancer age as compared to the white population.

The most devastating disease of the Chippewa, as with all North American Indians, is the "Indian-killer," tuberculosis. There is some argument as to how large a part lack of immunity plays in this picture, but all concede that the low economic level is an important factor. Dr. Adams of the Hayward Indian Hospital believes the high rate among Indians is due both to lack of immunity plus poor economic conditions. Townsend (p. 35), however, states "It is our belief that the Indians as a race are not especially predisposed to tuberculosis, but that any group of the same economic level would have an approximate endemic index."

Dr. Adams estimated the present tubercular incidence to be 10 per cent. This includes all active cases, whether hospitalized or not. A complete survey has not been made, so it is impossible to compute the rate precisely. Hospital records showed an average of seventy-one tuberculosis cases admitted each year from 1933-1938, an incidence of 3½ per cent per year, but whether these were new or old cases was not indicated. That figure also does not take into account the active cases not hospitalized or those cases hospitalized at the Walker Sanitorium. The 10-per-cent estimate of Dr. Adams seems to be about as close to the actual rate as one can get.

The hospital records reveal that of the 233 deaths from 1931-1941, 41 were listed as caused by tuberculosis, or 17 per cent of the deaths were due to this cause. It is significant to note that during that same period, the T.B. mortality rate for all Wisconsin Indians was over eight times greater than that of the general U.S. population (Appendix A).

Another deadly disease among the Chippewa is pneumonia. Exposure to the inclement winter climate under conditions of inadequate clothing and housing, or a weakened physical condition is largely responsible for the high rate. For the ten-year period (1931-1941), the hospital records list a slightly higher percentage of deaths due to pneumonia than to tuberculosis. There were 43 pneumonia deaths of a total of 232, or a percentage of 18 per cent of the deaths due to pneumonia. The high death rate in winter is largely due to pneumonia. In the four months of December, January, February, and March, 26 of the 43 deaths occurred from pneumonia. From the available death records at the Agency Office for the years 1912-1921 and 1926-1939 nearly 50 per cent of the deaths were listed as caused by pneumonia and tuberculosis.

Considering the fact that most children are born at the hospital, the high rate of infant mortality is astonishing. Of the 232 deaths from 1931-1941, the number of stillbirths and those surviving less than six months was 56 or nearly one-fourth of the total deaths. 73 of the 232 were infants or children who died before their fifth birthday. This means almost one-third of the deaths was in the 0-5-year age group.

This high infant mortality is largely responsible for the appallingly low longevity rate among the Lac Court Oreilles Chippewa. The hospital records show that from 1931-1941 the average age at death was 30.8. The death records at the Agency Office for the years 1912-1921 revealed a longevity rate of 30.7 for that period. This agrees with the average life expectancy—30 to 40 years—of the American Indian as a whole (Townsend, p. 33). This is a longevity rate of less than one-half of that for the general United States population at large. This alone would give a people cause for alarm.

Another myth exploded by the hospital records was that the Indians who do survive the dangerous years up to adolescence live to a ripe old age. Of the 232 deaths, only 8 persons lived to the age of eighty or over as follows:

100 or over	1
90-99	3
80-89	4

Summing up the health situation of recent years, it may be said that the Chippewa have good reason to be concerned with the health problem. That with the high infant mortality rate and appallingly low life expectancy of 30.8 years, we are dealing with a people that has every right to awareness that something is radically wrong. That the problem is too involved to be solved by even first-class medical aid is obvious. Poverty is a syndrome which always includes sickness and disease in its ugly complex. Tuberculosis, a disease of malnutrition, will continue to thrive in the low-income community despite the efforts of doctors to check it. Until more adequate food, clothing, and housing are provided these people, they will be helpless against attacks threatening their physical well-being.

2. THE HISTORY OF THE ATTITUDE

The next problem to be considered, granting the excessive interest in health in modern times, is whether or not Chippewa preoccupation with

health is long established and traditional, or whether it is of recent vintage generated by modern conditions. The following analysis will attempt to show that a deep concern for health was present in the Chippewa before white contact; that this concern was sustained and apparently deepened during the first part of the contact period due to the introducion of new diseases, particularly smallpox, to the Indians; and that this concern was further sustained in modern times due primarily to the replacement of tuberculosis as a serious health threat as the problem of smallpox was brought under control.

The evidence for the hypothesis that the Chippewa interest in health is an old one rests largely on the impressive array of both disease concepts and native curative devices in existence at the time of the coming of the white man. These have already been discussed and need no further elaboration. Added to this is the probable pre-contact existence of the Midewiwin — a religious ceremony with curing as an important element, and the logical assumption that health is always an important concern among hunting peoples whose very survival depends upon the physical fitness and well-being of the hunter. While one would expect to find this attitude reflected in folklore and mythology, it is interesting to note that health and curing are only minor themes. About the only recurrent related theme is the wish for long life.

The coming of the white man and the subsequent introduction of new diseases had important repercussions upon the health of the American Indian. Precisely which diseases were pre-Columbian and which were introduced into America is a problem still involving debate. Hrdlicka states (1907, p. 540), "The condition of the skeletal remains, the testimony of early observers, and the present state of some of the tribes in this regard, warrant the conclusion that on the whole the Indian race was a comparatively healthy one. It was probably spared at least some of the epidemics and diseases of the Old World, such as smallpox and rachitis, while other scourges such as tuberculosis, syphilis (pre-Columbian), typhus, cholera, scarlet fever, cancer, etc., were rare, if occurring at all."

The greatest scourge of the Indian during the early, as well as most of the historical period, was smallpox. Stearn and Stearn (p. 13) state that "Smallpox, which was introduced into the mainland of the Americas in the early part of the sixteenth century . . . decimated the native population for four centuries . . . " and add, "Smallpox killed more Indians in the early centuries than did any other single disease." Although specific references to

the Wisconsin Chippewa in this regard are absent for the early historic period, it is known that such epidemics infiltrated this general area and undoubtedly took their toll of this group. "From 1633 to 1641 there seems to have been an almost unbroken series of smallpox epidemics through the Great Lake — St. Lawrence River region." (Stearn and Stearn, p. 24.) Again (p. 131), "In 1781-2 it (smallpox) ravaged the Ojibway territory as far west as Lake Superior." In the later historic period one encounters specific references to the Wisconsin Chippewa, such as (Morse, p. 348), "The Chippewas, during the past few years (i.e. previous to 1855), have suffered extensively, and many of them died, with the smallpox." That the problem was a serious one is indicated by the inclusion in the treaty of 1836, between the United States and the Ottawa and Chippewa Indians, of a section providing for the payment of three hundred dollars a year for vaccine, medicines, and the services of physicians.

During the first half of the Nineteenth Century came the first real attempt to protect the Indian against smallpox by means of vaccination, isolation, and quarantine, but adequate control of the problem was not realized until the end of the century. The last important outbreak of the disease occurred from 1898 to 1901 in the United States and Canada, but a mild form had replaced the virulent one, and while the incidence was high the mortality was low (Stearn and Stearn, p. 113). In 1907 the vaccination of children in Indian schools was made compulsory (p. 123), and by 1938 only one death from smallpox was recorded for that year among the entire Indian population (p. 131).

Just what the effect of the ravages of smallpox was upon the attitude of the Chippewa can only be surmised. The appalling death rate from the disease as well as the serious after-effects such as disfigurement, blindness, or deafness frequently occurring among those who had recovered could not have been lightly regarded. It seems probable than any intensity of concern with health held prior to the arrival of the white man would have been at least maintained, if not deepened, during the historic period. Certainly such observations as Raudot's, in 1701, that ". . . there is not a single old Indian man or woman who does not have some secret of medicine, real or pretended." (Kinietz, 1940, p. 372), suggests that curing was important in the minds of the Chippewa at that time, and Kohl's comment in 1860 (p. 382), that one Chippewa had given forty packets of beaver skin

estimated at $30,000 in exchange for medical knowledge in the Midewiwin, indicates that this interest had not diminished.

Whether the problem was resolved by acquired immunity, effective application of preventive medicine, or a combination of the two, the fact remains that by 1900, smallpox had ceased to be a serious problem of the Chippewa. By this time, however, a new threat to their health had arisen in the form of tuberculosis, which became and remains the most serious health problem of modern times. The rise in tuberculosis incidence was, to a considerable extent, an accompanying feature of the acculturational process. The increasing acceptance of western culture produced conditions amenable to the spread of the disease. While the Chippewa had been exposed to, and had incorporated many items of western civilization into their culture during early times, the period of intensive acculturation begins with their settlement on reservations in 1854. Traditionally the Chippewa had lived in small, widely scattered, semi-sedentary bands. The reservation system froze them in their locales, resulting in reduced mobility and a greater concentration of population. The trend toward a more settled way of life was furthered by the gradual breakdown of the old economic system. Under the old system the group was almost constantly on the move. In the fall they moved to the wild rice fields for a period of a month or more. In winter they moved to the hunting grounds; spring found them in the sugar-bush; and in summer they returned to the village to fish, gather berries, and tend their gardens. The change from a food-gathering economy to a money-gathering economy began during the latter half of the Nineteenth Century when lumber interests invaded the area and many of the men took jobs in the lumber camps. Today, a combination of the two is in operation, but the emphasis is on a money economy with the major income from seasonal pursuits such as cutting pulpwood, guiding, and harvesting crops for the nearby farmers and cranberry growers. Elements of the old economic cycle are still in evidence, but the only thing approaching mass migration occurs in the fall when many families move to the wild rice fields. Only a few families still collect maple-syrup in the spring, and while there is considerable hunting and fishing done throughout the year it is now done with the permanent home as a base of activities. This economic trend has had two results bearing on our problem: a more sedentary life with much more time spent in a fixed abode, and a change in the foodways.

The abandonment of the wigwam for a more permanent dwelling introduced some unfortunate aspects. The majority of the houses today are one- or

two-room log cabins or frame structures. Overcrowding is common and I have seen as many as nine persons living in a one-room house. Such conditions producing close contact mean that the likelihood of an infected member spreading tuberculosis among other members of the family is great. The problem of control is also made difficult by the fact that the Chippewa love to be with their families, and will frequently refuse to remain away at a sanitorium for the length of time required for cure.

Houses in general are poorly insulated, often not equipped with screens, and modern plumbing is almost unknown. I know of only one bath tub, one flush toilet, and one house equipped with running water on the reservation today. This lack of modern plumbing coupled with the lack of electricity and such conveniences as power-washing machines makes the problem of maintaining cleanliness a difficult one. While the low standards of personal and household cleanliness can be largely attributed to economic conditions, there must also be taken into account a traditional lack of any considerable concern for cleanliness, especially in terms of the household. The wigwam of former days was primarily a sleeping place and shelter from inclement weather, and in following their economic cycle no one dwelling was occupied long enough to create problems of sanitation current in their fixed abodes today. Programs of health education by the field doctors and nurses and the influence of the schools have helped, but there is much more to be done in this line. It might be pointed out that the homes of the older people are better kept as a rule, a fact probably explainable in terms of the greater difficulties in maintaining a neat house by the younger people who have a number of small children. Both the considerable lack of modern sanitary knowledge and equipment, and the overcrowding are conditions amenable to the rise and spread of tuberculosis.

The change in foodways from a native diet to a growing dependency upon commercial foods has had some bearing upon the health of the community. Native foods such as fish, wild game, berries, and wild rice are still important items of diet and utilized whenever available, but commercial foods form the major portion of the diet. In line with their low economic position it means that they are usually limited to the cheaper foods. Meats, such as salt pork and sausage, are used in considerable quantities mostly because these are all they can afford. Shopping is done at the two stores on the reservation and in the two nearby towns, but distance and lack of transportation limits shopping to once a week in most cases. Fresh foods are not

usually purchased because of the lack of facilities for preservation. There is only one refrigerator on the reservation, and ice boxes are rare. This limits the use of fresh dairy foods, with canned milk taking preference over fresh milk, and butter and cheese not commonly encountered. Some of this lack of fresh food is compensated for by the use of supplementary native foods, but the supply is not always dependable. There is also a considerable use of starchy foods such as bread, potatoes, and dumplings. In general it may be said that the absence of a well-rounded diet is due to the lack of knowledge, financial means, and preservative facilities. Tied up with the problem of adequate diet is the existence of actual food shortages at times when money runs out. While no one starves to death on the reservation, there are hardship cases which undoubtedly leave their mark in terms of health. It is apparent that the inadequate diet is a contributing factor to the incidence of tuberculosis which is to a considerable extent a disease of malnutrition. Whatever the causes and contributing factors, tuberculosis is the chief health problem of the modern Chippewa and they are well aware of it.

Another clue to the health situation during the historic period is to be found in the observations and reports by early writers pointing out the high rate of infant mortality. For example, Peter Jones (p. 145), working among the Canadian Chippewa during the 1830's and '40's says "It is painful for me to relate, that of all the children that have been born among these tribes with which I am acquainted, more than one-half die before even reaching the period of youth; it is only those who have the strongest constitutions that survive the shocks and exposures to which they are subjected during infancy and childhood. The poor mothers are very ignorant of the nature of the diseases common to children, and of the proper treatment of them; sometimes their clothing is very scanty, at other times they are almost smothered in blankets. The food which they eat is often injurious, and thus disease is generated by the very means used to subdue it." A report on the White Earth (Minnesota) Chippewa for 1890 contains the following statement. "Nearly two-thirds of the Indian infants die under 5 years of age . . ." (U. S. Census, 1894, p. 340-1.) While such observations and reports must be considered as opinions rather than statistically arrived at facts, and thus may be somewhat exaggerated, it is still apparent that the rate of infant mortality was, and is today, unusually high.

In summary it may be pointed out that the evidence strongly suggests that a preoccupation with health existed among the Chippewa Indians in

pre-contact times. It is further apparent that this attitude was not only sustained, but doubtlessly deepened during the historic period due to the acute health problems resulting largely from white contact. Such problems as the high rate of infant mortality, the death and disabilities wrought by the introduction of new diseases by the white man, particularly smallpox which was an almost constant ravager from early to relatively late historic times, and tuberculosis which replaced smallpox as the most serious disease and remains today as the major threat to the well-being of the community, gave the Chippewa a realistic basis for intensification of their concern with health.

3. CONCLUSIONS

This report thus far has really had three minor objectives and a major one. One of the former was to put on record some previously unreported data obtained in our field-work. Another was to bring together for the first time all the curative techniques known for the tribe. A third objective was to present a picture of the rather unfortunate health situation existing at present and to indicate the reasons for it, particularly in terms of the effect of white contact.

The major objective, however, has been to show the existence and history of an attitude. The first section of the paper was concerned with the problem of establishing the fact that a preoccupation with health does exist among the modern Chippewa Indians of Wisconsin. The attitude was apparent in their daily life as expressed in their every-day conversation, their well-filled "medicine chests" where the aspirin tablet mingles with native herbs drying on the rafters, and in their considerable knowledge and traffic in native medicines. The attitude was even more clearly discernible in their health-seeking ceremonial complex. It was shown that two of the three religious ceremonies had curing as their primary purpose, and the third had a curing ritual up to recent times. Another expression of their health interest was found in an analysis of the traditional disease concepts. It was seen that the Chippewa have all five of the disease concepts as defined by Clements, a phenomenon uncommon among primitive peoples of the world. An examination of the curative and preventive techniques employed by both professional healers and private individuals revealed an impressive array dominated by magico-religious devices, but also including mechanical and

medicinal techniques. The fact that the professional healers, the Mide priests and shamans, were accorded the highest prestige in the band was another indication of the attitude.

The second portion of this paper has dealt with an analysis of the reasons for such an attitude in terms of both the present situation and previous history of the band. While it could never be proven, the evidence pointed to the hypothesis that a considerable concern with health was entertained by the Chippewa in pre-contact times. It was seen that any existing concern for health was intensified during the historic period due to the serious health problems resulting from white contact. Beside the introduction of new diseases such as smallpox which plagued the Chippewa during most of the historic period, white contact also resulted in cultural changes producing conditions under which diseases like tuberculosis flourish. An analysis of the state of health of the band in modern times revealed that the preoccupation with health apparent among the Chippewa today has a realistic basis; that the health of this community is sub-standard; that while the Indian only senses something is wrong, the statistics show the following:

1. One out of two persons is hospitalized each year as compared to one out of five for the general United States population (1946).
2. That the tuberculosis mortality rate for Wisconsin Indians for the ten-year period from 1931-41 was eight times greater than that of the general United States population.
3. That for this same ten-year period one-third of the deaths were in the 0-5-year age group.
4. That for this same ten-year period the average age at death was 30.8 as compared to the general United States life expectancy rate for whites of 65.5 (U. S. Bureau of Vital Statistics, 1939-41).

It seems probable that a preoccupation with health will exist among the Chippewa as long as such unfortunate health conditions prevail, and it seems unlikely that there will be any radical change in the attitude in the immediate future. The health problems of the Chippewa today are to a considerable extent a result of poor economic conditions, and there is little likelihood of any significant improvement in the near future. While a comprehensive program of health education, and an expansion of medical services might be of considerable help, the problem will not be resolved as

long as the American Indian remains the lowest income ethnic group in the United States. On the cheerful side of the ledger is the fact that the high death-rate is offset by the higher birth-rate so that the Chippewa are increasing in number.

An additional word may be said regarding the possibilities of improving the situation through the medium of a public health program. Dr. E. T. Foard, Director of Medical Services of the Bureau of Indian Affairs, in recently deploring the utter inadequacy of a preventive medicine program for the American Indian makes the following points (pp. 1403-7):

1. "As for public health (preventive medicine) service for the Indians, 83 field nursing service positions are now provided for under budget limitations and only 50 positions are filled. Despite the urgent need for improvements in environmental sanitation on practically all Indian Reservations until within the past few months, only one medical officer trained or experienced in public health adminstration had ever been employed by the Bureau of Indian Affairs for field service. It was only within the past 60 days that the first sanitary inspector was ever employed for field service among the Indians; yet basic sanitation is the one great need for eliminating health hazards which exist on a majority of the Indian Reservations. At the present time, only two qualified sanitary engineers are employed by the Bureau of Indian Affairs and only one of these two is devoting his full time (on the Navaho Reservation) to public health work. No pediatricians or nutritionalists have ever been employed for field service among the Indians; yet diseases of infants and children are among the principal causes of the high death rates among Indians as a racial group. . . .

2. "Only one dentist is employed for each 19,000 Indians. . . .

3. "Of the 62 Indian hospitals operated in the United States, more than 40 per cent of the hospital load from year to year has been made up of preventable or controllable diseases. . . .

4. "The high morbidity and mortality rates among the Indians are undisputable evidence that the health of the American Indians, a majority of whom are wards of the government, has been neglected to the extent that the lack of health facilities for Indians is a disgrace to the nation. . . .

5. "The Indians are entitled to health services equal to those provided for the white people of the country. For lack of funds, inability to pay adequate salaries for professional personnel and an outmoded central administrative policy, they are not getting it."

Dr. Foard ends with the statement that unless the present federal plan is radically improved, the public health program should be transferred to state agencies for administration with the aid of federal subsidies. In terms of direct benefit to the Indian, such transfer has much to recommend it. A local agency is more likely to be sensitive to the problems and needs of the Indian group in its ken, whereas a centralized agency in Washington might be more prone to think in terms of "blanket" programs. Perhaps the chief contribution of the anthropologist is to point up the fact that each Indian reservation must be considered potentially a unique situation with the possi-

bility of very different methods and approaches required than either with other groups of Indians, or with whites; that one thoughtful and efficient health program might work well on one reservation and fail miserably on another because of the cultural and psychological differences of the two Indian groups. For example, a health education program for the Chippewa would have to have a different approach and appeal than one for the Navaho, not only because of the cultural and psychological differences, but also because of the difference in degree of acculturation. Even the transfer itself could not be a blanket one. Some groups would be easily accommodated into the prevailing health facilities of their particular state or county, while some of the isolated tribes, particularly some in the Southwest, would be left without health services because of the absence of non-federal facilities in the immediate vicinity.

Part Three
The Comparative Picture

This report thus far has focused its attention upon a single tribe. It is the intention in the following section to add comparative material through an analysis of other primitive groups in the attempt to learn whether or not the case of the Wisconsin Chippewa is a unique one. The problems to be considered are: (1) are there other North American tribes which also exhibit exaggerated health anxieties at the present time; (2) is there any correlation between health anxiety and type of economic life; and (3) what generalizations can be drawn concerning the effect of health attitude upon the behavior of man? The search for an answer to the first problem will be directed first to other bands of Chippewa outside of Wisconsin, and then to other tribes of American Indians.

Health anxieties are not restricted to the Wisconsin bands of Chippewa. Both Landes and Hallowell report similar situations among the Canadian Chippewa. Thus Landes (p. 179) reporting on the Chippewa of southwestern Ontario, states:

> "All the preoccupations of the Ojibwa can find expression only with the limits set by the individualistic attitude. Thus the general interest in physical well-being is a concern of the individual alone; the group, the tribe are not considered. Every Ojibwa is ridden with anxiety about his health. From birth, a child is provided with curing rites by his parents. An adult continually hires doctors for himself, seeks visions that promise well-being, participates in the curative Sun-Dance and Medicine Dance. This concern with illness finds a complement in the cultural provision for curers of several different sorts. The attention given to one's own illnesses, which is based on a rather hypochondriacal self-preoccupation, matures into a relationship between patient and curer in which the patient is interested only in improving his condition, and the curer typically is interested only in demonstrating his power to cure. The attitude of the shaman is extremely exhibitionistic — he wants to show off power, miraculous tricks which have been given to him in a vision by a supernatural who singled him out for this personal attention. Here again, the curer's success is important to him largely because it ministers to his self-respect, not because he has any serious stakes in alleviating the patients' suffering."

One difference between this group and the Wisconsin Chippewa is that among the former, ". . . the physical well-being is a concern of the individual alone; the group, the tribe are not considered." (Landes, p. 179.) While this concern is primarily an individualistic affair among the Wisconsin Chippewa, it is certainly not exclusively so. Examples of group concern for the physical well-being of the community were previously described in

connection with the Chief Dance and the ceremonial slaying of the straw dummy. In both the Medicine Dance and Drum Dance concern for the well-being of the group is expressed in the form of prayers to the ma'nidog to keep the people well.

Hallowell (1941, p. 872), in his study of anxiety among the Berens River Chippewa of southern Manitoba, says:

> "In Saulteaux society, it is not fear of the Gods or fear of punishment that is the major sanction: it is the fear of disease. Or, putting in the terminology already employed, the motivating factor is the effect connected with certain disease situations. Individuals in Saulteaux society are highly sensitized to anxiety as an emotional reaction to a danger signal, the precipitating cause being illness interpreted as punishment. The manifest danger to which the anxiety is directed is the direct threat to someone's well-being or even life."

It is apparent that a pronounced healthy anxiety exists among these two Canadian tribes comparable to the Wisconsin situation.

While the lack of data precludes the possibility of an analysis of health anxieties among the American Indians as a whole, there are, at least, some areas that can be sampled on the basis of recent work touching on this problem.

Macgregor's (pp. 190-2) study of the Pine Ridge Sioux, for example, sheds some light on health attitudes among the children of that tribe. The results he obtained from giving the children the Emotional Response Test and the Moral Ideology Test indicate that concern for well-being is an important consideration among them. While the number of responses " . . . suggest that the predominant behaviour and emotions of the children are reactions to a world that seems to them hostile, the second largest category of responses reveals the children to be concerned with self-interest in pleasure or anxiety about their own well-being." "Self-concern over being sick and dying would not be thought unusual under these circumstances if it were not the additional high anxiety over the death of others. Worry about the possible death of other people, as measured by the frequency of responses, is exceeded only by that caused by the potential or overt aggression of people and by the behavior of animals. Although the children have strong affection for their relatives, worry about their death or sickness appears to be centered in apprehension about how such catastrophes will affect the children themselves. This preoccupation is thrown into bolder relief by the absence of any responses showing interest in the happiness or activities of other people. Judging from Macgregor's material it is evident that health

anxieties are an important concern of the Sioux. However, it does not seem to attain the intensity as exhibited by the Wisconsin and Canadian Chippewa.

For sheer intensity of health anxiety among the American Indian no group can even approach the Navaho. This interest in health was pointed out by early investigators of the Navaho such as Matthews who in 1897 observed (p. 40): "All the great ceremonies which the writer has witnessed among the Navahoes are primarily for the healing of the sick." Modern students of the Navaho such as Kluckhohn and the Leightons have been even more impressed with their preoccupation with health. The Leightons (1942-A, p. 517), for example, point out that the majority of the thirty-five principal ceremonies of this tribe are concerned with disease and curing. Their study of types of uneasiness and fears (1942-B, p. 203) showed that threats to health and body were by far the most important in the minds of the Navaho in a series which also included threats to subsistence, social security, liberty, housing, and religion. "The first thing which the collected data reveals is the great preponderance of health concern over any other type, health references forming sixty per cent of the total. Some of these came to our attention because we were known to be physicians. However, even if we subtract all references that seem influenced by our profession which seem to be about fifteen per cent, health and body threats, totalling forty-five per cent lead all other types by a large margin."

Kluckhohn and Leighton (p. 160) estimate that in the Ramah area the Navaho men devote one-third to one-fourth, and the women one-fifth to one-sixth of their productive hours to activities connected with religious rites. This " . . . includes the periods they spend as patients, helpers, and spectators; their trips to summon ceremonialists and to gather plants and other materials; the extra chores in preparing food for practitioners and guests and in hauling larger supplies of water and firewood than usual." Considering that the majority of these rites are for curative purposes, it is apparent from the great amount of time spent on them that curing holds an important place in the minds of the people. The same writers further estimate that about twenty per cent of the total family income of the people in the Ramah area is spent for religious purposes. Further data to show that the Navaho are unparalleled among the North American Indians in terms of health anxieties seem unnecessary.

If other studies on health anxieties among modern Indian tribes exist, I have not been able to find them. Turning then from the modern picture

and to a broader problem we next deal with the possible correlation between an emphasis on curative rites and type of economic life.

The hypothesis to be tested in the following pages is this: that among the American Indians north of Mexico there existed by Columbian times a cultural complex emphasizing hunting, shamans superimportant over priests, weak development of religious rites, and strong development of curative practices; that this was a northern tradition emanating from and essentially limited to the northern area (northern United States and Canada) geographically; that tribes moving south encountered a different complex presumably emanating from Central America; that this Southern Tradition was based economically on agriculture (particularly the raising of corn, beans, and squash) and had a strong priesthood with priests more powerful than shamans, well-developed religious ceremonies with an accent on fertility, and planting and harvesting rites (particularly maize ceremonies) rather than curative. Type tribes for this tradition would be the Hopi in the Southwest, and any of the Muskogean-speaking peoples of the Southeast. Type tribes for the Northern Tradition would be such groups as the Chippewa and Naskapi of the Woodland area and Kutchin and Tanaina in the MacKenzie area.

The kernel of this complex of interest to us is the hunting economy associated with an emphasis on curative practices on the one hand as against the agricultural economy associated with a concentration on planting, harvesting, and fertility rites. If the former correlation can be definitely established we might seek for the reasons for the greater concern for health among hunting peoples in terms of the greater physical dangers involved in the hunt and the great dependence for sustenance and even group survival upon the physical well-being of the hunter. In the following areal analysis, regions without hunting or agriculture as dominant economies such as the Northwest Coast, Plateau, and California will not be considered. In this analysis Wissler's (p. 199) distinction between priest and shaman will be used. "A large number of tribes have distinct names for each and their cultures give them distinct and sometimes antagonistic functions. It is the shaman rather than the priest who is called upon to treat the sick, to foretell the future, etc. The priest is essentially the keeper and demonstrator of rituals, his right to do so arising chiefly from his mere knowledge of the subject, but the native conception of the shaman is one who works directly by virtue

of some extra-human power. Consequently, it is the shaman who goes into trances and mystifies by jugglery, not the priest."

THE MACKENZIE AREA

While ethnographic information is scanty for this area, that available definitely places these peoples in the Northern Tradition. Here is a people with a strong hunting complex and no agriculture. As would be expected, planting, harvesting, and fertility rites are absent. However, neither are the religious rites focused on curing. In the first place this is an area in which religious rites are exceedingly rare. In fact, the only ceremonial recorded is the potlatch given for prestige purposes among such tribes as the Kutchin and Tanaina located near the Northwest Coast and an obviously borrowed trait from them. With the weak development of formal religion, however, went a strong shamanistic complex with the shamans the most powerful men in the tribe. As one traveler among the Kutchin described it (Kirby, p. 419), "Altars, or rites of religion, they had none, and before the traders went there there was not even an idea of a God to be worshipped. Medicine men they had, in whose power they placed implicit faith; and whose aid they they had, in whose powers they placed implicit faith; and whose aid they dearly purchased in season of sickness or distress." Osgood (1936, p. 156) points out that "Shamans have both great influence and status among the Kutchin, a fact with which practically all observers have been impressed. These medicine men form the dominating group in the economic and intellectual activities of the native world." In summary it may be said that the MacKenzie region follows the Northern Tradition to the point of being considered a type area.

THE WOODLAND AREA

The Northern Tradition hypothesis also holds well for the Central Woodland peoples, for example, the Chippewa. Inasmuch as the culture has been previously delineated in this report it is sufficient to state that it conforms to the Northern Tradition at all points. Turning to the Eastern Woodlands, early information on the New England tribes is such that the hypothesis cannot be adequately tested. However, among such eastern Canadian tribes as the Naskopi and Montagnais, the hypothesis holds well. The only apparent exception to the domination of the Northern Tradition in the

Woodland area is in the case of the Iroquois. Here was a people with a strong agricultural complex with an accompanying emphasis on planting, harvesting, and fertility in their religious ceremonies. While one important ceremonial, The False-face, had curing as its primary function, the religious calendar of the Iroquois was essentially focused on a series of what Morgan terms "thanksgiving festivals." Although a true priesthood did not exist, there was a class of lay "priests," the "Keepers of the Faith" who conducted the religious observances. While shamans did exist and practice, they were not the dominant influence in the tribe. In short, the Iroquois cannot be considered as at all typical for the Northern Tradition. In fact, there is much more reason for placing them in the Southern Tradition. The answer seems to be that the Iroquois, in their relatively late migration from the Southeast, brought with them the essentials of the Southern Tradition and modified them to some extent en route or in their northern home.

THE PLAINS AREA

While the MacKenzie and Woodland areas fall rather neatly into the Northern Tradition hypothesis, the situation is not so simple for the Plains Indians. The Plains, in fact, seems to be the meeting place for the two traditions, and even with this in mind it is not an easy task to assign tribes to one of the hypothetical categories. It is apparent that by late prehistoric times an agricultural complex had already dominated the Plains and was in the process of being replaced in importance by the development of a new tradition involving a nomadic type of life based on communal hunting of the buffalo and encompassing a strong and unique war complex. Some of the residue agriculturalists like the Arikara and Pawnee can be readily assigned to the Southern Tradition. Associated with the Pawnee agricultural economy were elaborate religious rites involving the fertility theme. "Maize, which was regarded as a sacred gift, was called 'mother' and religious ceremonies were connected with its planting, hoeing, and harvesting . . . A series of ceremonies relative to the bringing of life and its increase began with the first thunder in the spring and culminated at the summer solstice in human sacrifice, but the series did not close until the maize, called 'mother corn' was harvested." (Fletcher, p. 215.) An active priesthood existed. While buffalo hunting was practiced by the Pawnee, and secret societies performed curative rites, the agricultural fertility complex dominated

the scene, and in general the Southern Tradition is well represented by the Pawnee.

On the other hand, in the case of the nomadic hunting tribes among whom the Northern Tradition would be expected to prevail, the issue is not particularly clear-cut. For example, coupled with the strong hunting tradition of these peoples we would expect to find on the basis of our hypothesis a strong concern for health and an emphasis on curative rites. Such is not the case. For example (Ackerknecht, p. 557), "the Cheyenne were fatalistic about disease in a culture where death in war was more likely than death from disease . . . the relative neglect of medicine is perhaps the most Cheyenne-like trait among the Cheyenne." Here we have a tribe which migrated from the Woodlands to the Plains as late as the 18th century and rapidly and almost completely adopted the culture of the Plains nomads. In the process they dropped whatever emphasis on curing they may have had and adopted the Plains war complex in which death in battle was, ". . . besides being glorious, protected one from all the miseries which threaten later life and are inevitable in old age." (Grinnell, Vol. 2, p. 5.) Nomadic Plains culture in general is one in which the social cynosure of war was developed to a point where it could have overshadowed and paled any strong emphasis on curing which might previously have existed. It must not be thought, however, that among these people all concern for health was blacked out. The most important religious ceremonial of the Plains, the Sun Dance, was pledged for curative purposes by individuals of such tribes as the Arapaho, Blackfeet, Sarsi, and Plains-Cree. Shamanistic curings were also performed, but the point to be made is that the curative traditions and rites among the early historic nomadic Plains tribes were considerably weaker than in the Woodland or MacKenzie areas. Whether or not this can be ascribed to a traditional lack of basis on health, or to a conversion of attitude resulting from the interference of a newer cultural cynosure, that of war, cannot be determined. Another point at which nomadic Plains culture does not conform to the Northern Tradition is in terms of the religious development. While it is not as strong or elaborate as in the Southwest, neither can it be characterized as weak. It is certainly more developed than in either the MacKenzie or Woodland areas. Summarizing the case for the Plains, we can only say that the Southern Tradition is in evidence among the agricultural groups, and absent among the nomadic groups. It must also be conceded that the Northern Tradition is not particularly strong among the nomadic tribes where we would expect to find it so on the basis of their

location. The answer here seems to be that there is actually a third tradition represented by the Plains nomads and developed on the Plains largely because of a unique situation in the form of a plentiful, but roving, food supply which demanded particular cultural adaptations in order for it to be exploited. This tradition may have been expanded or influenced in some way by the infiltration of such peoples as the Plains Dakota and Crow from the Southeast, and by later arrivals such as the Arapaho and Cheyenne migrating to the Plains through the Woodland area, and perhaps bringing elements of the Northern Tradition with them. In summary, the picture for the Plains is so complex due to cultural change and admixture that one can say only that while the Southern Tradition is fairly well represented by the remnant agricultural peoples, the nomads represent not the Northern Tradition (although some elements of it are to be found), but rather a third tradition based on communal rather than individualistic hunting.

THE SOUTHEAST

Turning our attention to the Indians of the Southeast we find a culture strongly reflecting the Southern Tradition. Wissler (p. 238) selecting the Muskogeans, Yuchi, and Cherokee as representing the typical culture in this area enumerates the following traits: "great use of vegetable food and intensive agriculture; raised maize, cane, pumpkins, melons, and tobacco . . . ; elaborate planting and harvesting rituals, especially an important ceremony known as the 'busk'; shamanism prominent." The latter trait seems somewhat egregious in terms of our hypothesis, but there is little doubt that the priests were the powerful members of the tribes over the shamans. "According to Bartram, 'besides several juniors or graduates,' there was a high priest in every Creek town. These were persons of consequence and exercised great influence in the state, particularly in military affairs." They would ". . . foretell rain or drought and pretend to bring rain at pleasure, cure diseases, and exercise witchcraft, invoke or expell evil spirits, and even assume the power of directing thunder and lightning." (Swanton, 1910, p. 523.) Such elements as intensive agriculture coupled with a well-developed religious complex focusing on planting and harvesting rites, and a powerful priesthood well represent the Southern Tradition.

THE SOUTHWEST

Perhaps the most typical representatives of the Southern Tradition are the Pueblo Indians of Arizona and New Mexico. Associated with the basic

agricultural economy are a host of elaborate religious rites concentrated on fertility, planting, and harvesting themes. "The scheme of maize ceremonies in the Greater Southwest can be stated in very general terms. They celebrate what we might call the life cycle of Indian corn: its birth, or planting; maturity, or green corn festivals; and death, or rain, according to the interests of a group, but the three stages representing the birth, maturity, and death, or harvesting." (Underhill, p. 15.) Along with this is found what Swanton (1910, p. 523) calls "the most highly developed priesthood north of Mexico." Under this cultural landslide such northern traits as potent shamanism, and emphasis on curing are nearly buried. The Hopi in particular represent the Southern Tradition at its acme in North America.

On the other hand such Athabascan-speaking peoples of this area as the Apache and particularly the Navaho reflect to some extent the Northern Tradition. Both are relatively recent migrants to the Southwest, but what they brought from the north and what they might have picked up on the way or in their new locale is difficult to determine. It is probable that the Navaho were a hunting people in the north, but today hunting is deemphasized in favor of agriculture and herding. Kluckhohn (p. 4) states: "Some specialists believe that the Apaches and Navahos learned the rudiments of agriculture from the Plains Indians on their journey southward, but there are grounds for believing that they knew little of agriculture before they reached the Southwest. It seems certain, too, that when the Navahos arrived in the Southwest they had no ceremonials as complex as those of today." It is apparent that the Navaho did not take over agriculture with the same whole-heartedness as did the Pueblos, nor did they take over any of their ceremonial attitude toward it. Whatever proliferation of their ceremonial complex was accomplished was done in terms of a preoccupation with curing suggesting a northern orientation. It is interesting also to note that the elaborate curative ceremonies are conducted by priests rather than by shamans. In general, the Navaho, while showing modifications due to contact with southern culture, still reflect the basic aspects of the Northern Tradition. The same may be said for the Apache. In fact the Apache show less admixture from the agriculturists than do the Navaho. One of the interesting interpretations made by them in reflecting the Northern Tradition, but resulting from culture contact in the Southwest has been the transformation of the rain-bringing Kachinas of the Pueblos into mountain spirits called to cure disease (Underhill, p. viii).

CONCLUSIONS

In summary the hypothesis of a Northern and Southern Tradition seems to stand up fairly well, although it is least clear in the Plains area. While there undoubtedly are certain tribes in the areas analyzed that would not be placed in either of these categories the hypothesis, in general, seems to hold. The apparent exceptions in the case of the Navaho, Apache, and Iroquois, however, tend to support rather than deny the hypothesis. The factor of migration must be considered in such an analysis as must the possibility of culture change due to influx of new ideas in conflict with the old, as seems probable in the case of the Plains. In two of the five areas reviewed, both the Northern and Southern traditions are represented to a greater or lesser degree. In the Plains area while the hunters dominated the scene by Columbian times (although the Northern Tradition is only weakly represented), the southern maize complex was still very much in evidence as represented by such peoples as the Pawnee and Arikara. In fact, this area seems to be the northernmost extension of the Southern Tradition showing up in any strength. In the Southwest the majority of cultures are characteristic of the Southern Tradition, but the Apache and Navaho reflect more of the Northern Tradition, with the Apache showing less modifications due to southern contacts than the Navaho.

The problem of origin and development of the two traditions is an interesting one. The clue to the origin of the Southern Tradition could conceivably hinge upon the area in which corn originated. Unfortunately this problem has not been solved and its origin has been postulated for various areas from Mexico to Bolivia. It seems certain, however, that no matter which area maize originated in, it entered the Southwest via Mexico. Whether it originated, developed, or merely passed through Mexico, the counterparts of the Southern Tradition are much more apparent south rather than north of the border. Maize culture was in full swing in Mexico by conquest times, and well developed maize ceremonies existed in northern Mexico and extended at least as far as Aztec and Mayan country where elaborate ceremonials involving maize, fertility Gods and rites have been recorded. It is logical to suppose that the maize culture was accompanied by appropriate religious and ceremonial precautions when it entered the Southwest.

While the evidence points to an indigenous origin of the Southern Tradition on the North American continent, the counterparts of the North-

ern Tradition are to be found in Asia. While the characteristic complex is not to be found in toto among any particular group in Asia, some of the elements are in much evidence in such hunting or herding-hunting peoples as the Chuckchee and Koryak of Siberia. Particularly impressive is the strong shamanistic complex with detailed resemblances to North American shamanism. Here is found the same modus operandi of the shaman in calling upon the spirits to enter the house and aid in curing or prophecy, the use of jugglery and techniques such as ventriloquism, communication with the aiding spirits by means of the drum and song, and other specific elements which appear in North American shamanism particularly in the MacKenzie and Woodland areas.

One of the chief purposes of this section of the report has been to investigate the effects of a type of economy upon the attitudes of a people. It has been shown, and seems both obvious and logical, that the agricultural Indians of North America had a tendency to concentrate their religious attention upon agricultural themes such as planting, harvesting, and fertility. On the other hand, it has not been too easy to show that hunting peoples tend to focus their supernatural manipulations and attention upon the problem of health. In fact, outstanding exceptions to this have been shown to exist among certain of the Plains tribes. The most that can be said on the basis of the facts is that in North America, hunting tribes directed more of their attention and efforts in the realm of the supernatural toward the problem of maintaining health than did the agricultural tribes.

The possibility of the correlation between type of economy and supernatural life was first suggested to me in 1946 by Dr. Ruth Underhill who was then working on that problem for the Southwest, and has since published a very stimulating monograph on it (1948). Her thesis is that in the Southwest, the agricultural tribes have tended to develop communal ceremonies, and hunters, personal religious participation. She points out (p. viii) that hunters are by the very nature of their work individualists. That the hunter most successfully pursues his occupation alone, or at best in small groups. "His great need is for individual skill and courage — phrased as luck — and for health to carry on his arduous task. In this solitary struggle with Nature, each man seeks his own contact with the supernatural, finding his answer in the vision. The vision is sought, with greater or less effort, by all hunting tribes, not only in the Southwest, but, I think, over most of North America. In the course of contact and change visions can be

standardized into ritual. As a rule, however, their mark is spontaneity and immediacy . . . One line of development leads from the vision to Shamanism. The shaman among Southwest hunters is simply a vision recipient whose experiences have been particularly intense and specialized." Furthermore (p. 50), "He flourishes in areas where communal ceremonies are few and where attention is concentrated on the desire for health. His power over disease allows him to produce it as well as cure it, so that a suspicion of sorcery is constantly attached to him. As communal ceremonies arise, if the shaman retains his function, he is likely to be pushed more and more into the background. His healing functions are curtailed as more and more of them are taken over by the ceremonialists, and, finally, he is looked upon chiefly as a sorcerer." Underhill's analysis of the Southwest is, I believe, applicable to the rest of North America. In particular, her picture of the individualistic hunter emphasizing personal rather than group religious participation, focusing his supernatural attention upon good luck and curative rites in the light of the rigors and dangers of the hunt, with dependence on shamans rather than priests is characteristic not only in the Southwest, but to be found wherever the Northern Tradition holds in North America. As to how common and widespread is her evolution of the individual shaman to communal priest and his simple rite into a communal ceremony is hard to judge, but the Navaho seem to be one instance in which this development has taken place, and the possibility of this happening in other cases is certainly worthy of consideration.

In my search through considerable literature dealing with the attitude of Indians toward disease, I was struck by a rather curious, but recurring, phenomenon. Namely, that there is a tremendously widespread tendency among American Indians to associate animals with disease. Furthermore, that such associations are as prominent among agricultural tribes as among hunting tribes. This association was first, but rather casually brought to my attention in connection with the guardian spirit. This widespread concept entails the acquiring of a tutelary spirit, often by a vision quest. Such spirit or spirits are animal in the great majority of cases, and serve to aid and protect the individual the rest of his life. The protection from and cure of disease is one function. The tie-up between disease and animals is much more impressive in the case of the shaman. The great forte of the American Indian shaman is to cure or harm by calling upon the assistance of powerful spirits which in the majority of cases are animal. Such spirits may be acquired through the vision quest as was usual among the Plains and Wood-

land tribes, or in other ways. Among MacKenzie tribes such as the Kutchin, shamanistic power is acquired through animal association which may begin before the birth of a person. Animals direct a future shaman from youth on. Such a youth will later announce that he has a certain animal as a companion and has become a shaman. The head of an animal is used in his supernatural functions. Among the Apache there exists the idea of contaminating animals as causative of disease. Disease can arise from unclean or evil animals in a variety of ways. "One" (Opler, p. 224) "is by getting scared. This is typical of owl disease. It is the thrill of terror, the moment of cold fright, that is really the entrance of the evil influence into your body. . . . Another way is by smell, odor. Bear and lightning sickness may be spread in this way. Another is touch. Contact with hides of the evil animals such as the bear, wolf, and coyote will give you the disease." The animals which have the most dangerous supernatural power are the bear, coyote, owl, and snake. The association of specific diseases with specific animals perhaps reached its apogee in the Southeast. Swanton (pp. 639-49) lists twenty-four animals causing disease among the Creek. There is a deer disease (rheumatism), dog disease (stomach cramps), buzzard disease (vomiting), rabbit disease (stomach disorder), and so on. Even the doctors were specialized, one curing deer diseases, another, snake. The Papago had a similar close association between disease and animals, while the Pawnee had animal lodges from which the shaman received power to cure disease. Many other examples of this widespread belief in the power of animals to cause or cure disease could be cited. Our purpose in pointing it out has been in an effort to determine whether or not it was essentially limited to hunting peoples. If such could be demonstrated we would have another reason for the considerable attention paid by hunting tribes to health and curing. Such a correlation, however, does not exist. The belief seems every bit as strong among agriculturists, particularly in the Southeast, as among hunters. Judging from its widespread distribution and counterparts in Asia, this is an old belief. It is also a field of inquiry which would be an interesting one for further exploration.

Finally, whatever the cause of the psychological attitude toward disease, be it rooted in economic reasons or not, it is apparent that the attitude of a primitive people toward disease influences and conditions human behavior to a greater extent than does the actual disease itself. This fact has been implicit in this report thus far, but it seems time to bring it forth as a generalization of some significance to those who attempt the study of man and his

culture. If a people believes as do the Navaho that the breach of taboo can throw one out of harmony with the forces of nature and cause disease, that awareness is bound to influence his behavior throughout his life much more than the actual advent of the disease. Besides the "shalt nots" are the "thou shalts" which motivate these people to perform many acts of behavior in order to prevent disease. As the Leightons have pointed out, subsistence is actually a more real problem than disease. Yet more of their attention and concern is directed toward curative problems than the other. If, as in Dobu, disease is a result of evil magic, the individual must bear this in mind all during his life and act accordingly, whereas the actual effect of the disease is, ordinarily, a short-term experience. We have examined the sanctions and taboos observed by the Chippewa in their attempt to ward off disease. The advent of disease itself among such a people is, in terms of human behavior, an anti-climax.

SUMMARY

This report has attempted to pose and substantiate the following six points:

1. That there exists among the Chippewa Indians of Wisconsin exaggerated health anxieties.
2. That, while a deep concern for health existed as a traditional attitude among the Chippewa, it has been substantially intensified in modern times as a result of very real and serious health problems.
3. That this attitude seems likely to persist for some time in the light of the fact that the health problems of the present are, to a considerable extent, due to poor economic circumstances, the immediate improvement of which seems unlikely. While an aggressive health-education program would be helpful in the present plight of the American Indian, such a program cannot be of the blanket variety, but must be geared to the individual tribes in terms of their own particular psychological and cultural patterns.
4. That health anxieties are present among other North American Indian tribes, particularly among the Navaho.
5. That health attitudes are correlated to some extent with type of economy among North American Indians. That the individualistic hunting tribes tend to concentrate upon individual contact with the supernatural with considerable attention being paid to health and healing in contrast to the agricultural tribes emphasizing communal religious ceremonies concentrating on planting, harvesting, and fertility themes.
6. That such a study as this highlights the fact that in terms of human behavior the attitude of a primitive people toward disease is more influential than the disease itself.

APPENDICES

APPENDIX A
T.B. MORTALITY OF WISCONSIN INDIANS FROM 1932 — 1943

Wis. State Board of Health Report

Year	*No. Deaths*	*Indian Rate per 100,000 estimated population*	*Rate for all others in U.S.*
1932	30	256.8	44.9
1933	39	332.2	39.3
1934	37	314.2	36.1
1935	22	186.2	34.1
1936	30	253.4	33.4
1937	35	295.1	31.6
1938	40	376.8	27.8
1939	22	185.2	26.3
1940	29	236.1	25.5
1941	29	236.1	24.6
1942	23	187.3	23.6
1943	17	138.4	25.7

APPENDIX B
SUMMARY FROM HAYWARD INDIAN HOSPITAL RECORDS

Date	*Enrollment in Hospital*	*Live Births*	*Still Births*	*T.B. Admitted*	*T.B. Deaths*	*Deaths from All Causes*
July 1, 1931						
June 1932	484	29	—	31	2	10
June 1933	801	68	2	40	5	12
June 1934	894	74	2	68	2	24
June 1935	894	87	3	69	4	27
June 1936	871	115	2	71	4	29
June 1937	940	102	4	74	8	34
June 1938	714	104	3	74	5	21
June 1939	756	100	0	74	3	24
TOTAL	6,354	679	16	501	33	181

APPENDIX C

STATE OF WISCONSIN
BUREAU OF VITAL STATISTICS
UNDERTAKER'S RECORD OF DEATHS

Taken from Death Certificates

Date	*Sex*	*Age*	*Cause of Death*	*% Indian*
Oct. 1931	M	31	T.B.	3/4
Oct. 1931	M	84	Nephritis	Full
Jan. 1932	F	90	O.A. (Single deterioration)	Full
Mar. 1932	M	0	Premature stillborn	1/2
Mar. 1932	M	0	Stillborn	1/2
Mar. 1932	F	4	Pneumonia	1/2
? 1932	M	14	?	1/2
Aug. 1932	F	28	Cholelithiasis	1/2
June 1932	F	9	T.B. (pulmonary)	1/2
Oct. 1932	F	11	T.B.	1/4
Oct. 1932	M	0	Stillborn	1/2
Oct. 1932	F	0	Stillborn	1/2
Oct. 1932	F	19	Meningitis	Full
Dec. 1932	M	1	Pneumonia (lobular)	1/2
Dec. 1932	M	60	Brain tumor	Full
Jan. 1933	M	6	Pneumonia (lobular)	1/2
Feb. 1933	F	22	Influenza	1/2
Feb. 1933	F	36	T.B. (pulmonary)	1/2
Mar. 1933	F	6	T.B. (pulmonary)	1/2
Apr. 1933	M	61	Pneumonia (lobar)	1/2
May 1933	F	76	T.B. (pulmonary)	Full
May 1933	M	18	T.B. (pulmonary)	Full
Aug. 1933	F	51	Pneumonia (lobar)	Full
Oct. 1933	F	0	?	Full
Oct. 1933	F	1	?	Full
Oct. 1933	M	65	Carcinoma of stomach	1/4
Oct. 1933	F	0	?	1/4
Nov. 1933	F	61	Cholociptites	Full
Nov. 1933	F	77	?	Full
Nov. 1933	F	28	T.B. (pulmonary)	3/4
Dec. 1933	M	0	Stillborn	1/2

Date	*Sex*	*Age*	*Cause of Death*	*% Indian*
Dec. 1933	M	1	Pneumonia (lobar)	Full
Feb. 1934	M	35	Heart disease	1/2
Feb. 1934	M	94	Pneumonia (lobar)	3/4
Feb. 1934	M	70	?	1/4
Mar. 1934	M	57	Pneumonia (lobar)	Full
Mar. 1934	F	0	Pneumonia	1/4
Apr. 1934	M	0	Stillborn	1/4
Apr. 1934	M	21	Wound-shock	1/2
Apr. 1934	M	1	Pneumonia	1/2
Apr. 1934	M	0	Hemophilia	1/2
May 1934	F	38	T.B. (pulmonary)	1/2
May 1934	M	44	Pneumonia (lobar)	1/2
May 1934	M	18	Ptomaine poisoning	1/2
June 1934	M	0	(Sepingomeplici)	1/2
June 1934	M	31	T.B. (of kidney)	1/6
July 1934	F	71	?	Full
July 1934	M	29	T.B. (pulmonary)	1/2
Aug. 1934	F	83	Senility	Full
Aug. 1934	M	1	Gastro enteritis	1/2
Aug. 1934	M	0	Stillborn	1/2
Aug. 1934	F	0	Stillborn	1/2
Sept. 1934	F	5	Pneumonia (bronchial)	1/2
Sept. 1934	F	62	Senility	Full
Oct. 1934	M	65	T.B. (pulmonary)	Full
Oct. 1934	F	0	?	1/2
Oct. 1934	F	33	Heart disease	1/2
Oct. 1934	F	0	?	1/2
Nov. 1934	F	21	Heart disease	1/2
Nov. 1934	M	57	Pneumonia (lobar)	1/8
Nov. 1934	M	71	Angina pectoris	1/4
Nov. 1934	F	9	?	1/4
Dec. 1934	F	0	Stillborn	Full
Dec. 1934	F	48	Carcinoma	1/2
Jan. 1935	M	58	Pneumonia (lobar)	1/2
Feb. 1935	M	0	Premature	1/2
Feb. 1935	F	?	T.B. (meningeal)	Full
Mar. 1935	F	0	Pneumonia	1/2

Date	*Sex*	*Age*	*Cause of Death*	*% Indian*
Mar. 1935	M	8	Pneumonia (lobar)	1/2
Apr. 1935	M	55	Cirrhosis of liver	1/2
Apr. 1935	M	39	T.B. of meninges	1/2
Apr. 1935	F	0	?	1/2
May 1935	M	78	Myocarditis	Full
June 1935	M	0	?	1/2
June 1935	F	4	?	Full
July 1935	F	2	Pneumonia	1/2
Aug. 1935	F	9	Purpura haemorrhagica	1/2
Aug. 1935	F	0	Premature birth	3/8
Aug. 1935	F	0	Stillborn	1/2
Aug. 1935	M	15	Pneumonia (lobar)	1/4
Sept. 1935	M	86	Myocarditis	Full
Sept. 1935	M	0	Stillborn	1/2
Sept. 1935	F	23	Shock during Caesarian	1/2
Oct. 1935	M	33	?	1/4
Oct. 1935	M	24	?	1/4
Nov. 1935	F	4	Pneumonia (lobar)	3/4
Dec. 1935	F	?	Pneumonia (lobar)	Full
Dec. 1935	M	28	T.B. (pulmonary)	1/2
Jan. 1936	F	29	Atrophy of liver	1/2
Jan. 1936	F	?	Pneumonia	1/2
Jan. 1936	F	39	Myocarditis	1/2
Jan. 1936	F	60	?	Full
Jan. 1936	F	1	Pneumonia (lobar)	3/4
Apr. 1936	F	0	Premature birth	1/2
Apr. 1936	M	50	Nephritis	1/2
May 1936	F	24	T.B.	1/2
May 1936	M	8	Appendicitis	1/2
May 1936	F	32	T.B.	1/2
June 1936	F	0	Premature birth	1/2
June 1936	F	19	?	1/2
June 1936	M	0	Premature birth	1/2
July 1936	F	25	Pneumonia	1/2
July 1936	M	0	Premature birth	1/2
July 1936	M	6	Excessive heat	1/2
July 1936	F	?	Diabetes Mellitus	1/2

Date	*Sex*	*Age*	*Cause of Death*	*% Indian*
July 1936	M	?	Pneumonia (bronchial)	Full
Sept. 1936	M	0	Eclampsia in mother	½
Oct. 1936	F	50	?	½
Nov. 1936	M	?	Pneumonia (lobar)	½
Dec. 1936	M	18	T.B. (pulmonary)	½
Jan. 1937	M	71	Pneumonia (lobar)	½
Jan. 1937	F	43	?	½
Jan. 1937	F	10	Pneumonia	½
Feb. 1937	F	?	T.B. (pulmonary)	½
Feb. 1937	M	0	Stillborn	½
Feb. 1937	M	?	Pneumonia	½
Feb. 1937	M	52	T.B. (pulmonary)	½
Feb. 1937	F	0	Pneumonia (lobar)	½
Mar. 1937	M	64	Herniplegia	½
Mar. 1937	F	22	T.B. (pulmonary)	½
Apr. 1937	F	38	T.B. (pulmonary)	½
Apr. 1937	M	5	T.B. (pulmonary)	½
Apr. 1937	M	0	Premature birth	½
Apr. 1937	M	0	Stillborn	½
May 1937	F	57	T.B. (pulmonary)	½
July 1937	F	51	Cholecystitis	½
July 1937	M	73	Nephritis	½
Aug. 1937	M	57	T.B. (pulmonary)	½
Aug. 1937	F	1	Enteritis	½
Sept. 1937	M	0	Stillborn	½
Oct. 1937	F	?	Senility	½
Oct. 1937	M	65	Meningitis	½
Nov. 1937	M	0	Stillborn	½
Nov. 1937	M	65	Accident — fracture	½
Nov. 1937	F	31	Syphilis	½
Dec. 1937	F	63	Syphilis	½
Dec. 1937	M	28	Pneumonia	½
Mar. 1938	F	1	T.B.	½
Mar. 1938	M	70	T.B. (pulmonary)	½
Apr. 1938	F	18	T.B. (pulmonary)	½
Apr. 1938	F	22	Septicemia	½
May 1938	F	21	Homicide by firearms	½

Date	*Sex*	*Age*	*Cause of Death*	*% Indian*
June 1938	M	48	Lobar pneumonia	1/2
June 1938	F	0	?	1/2
July 1938	F	68	Loc. of peritoneum	1/2
Aug. 1938	F	74	Chronic peritoneum	1/2
Aug. 1938	F	43	Lobar pneumonia	1/2
Aug. 1938	M	11	?	1/2
Sept. 1938	F	18	T.B.	1/2
Sept. 1938	M	72	?	1/2
Oct. 1938	F	63	Pneumonia (cerebral hem.)	1/2
Oct. 1938	M	26	Gunshot wound — left leg	1/2
Nov. 1938	M	74	?	1/2
Dec. 1938	F	0	Lobar pneumonia	1/2
Dec. 1938	F	0	Premature birth	1/2
Dec. 1938	M	2	Lobar pneumonia	1/2
Jan. 1939	F	8	Bronchial pneumonia	1/2
Jan. 1939	F	72	T.B. of Resp. system	1/2
Jan. 1939	M	0	Bronchial pneumonia	1/2
Jan. 1939	M	74	Senility	1/2
Jan. 1939	M	56	Syphilis	1/2
Feb. 1939	F	56	Cancer of uterus	1/2
Feb. 1939	F	44	Pulmonary T.B.	1/2
Feb. 1939	F	50	Lobar pneumonia	1/2
Mar. 1939	M	2	?	1/2
Apr. 1939	M	0	Premature birth	1/2
Apr. 1939	F	21	Pulm. T.B. bronchial pneumonia	1/2
Apr. 1939	M	22	Tetanus (burned)	1/2
May 1939	M	40	Acute nephritis	1/2
May 1939	F	70	Multiple fractures (hit by car)	1/2
May 1939	F	74	Lobar pneumonia	1/2
May 1939	F	50	Pulmonary T.B.	1/2
May 1939	M	28	Pulmonary T.B. and syphilis	1/2
May 1939	M	77	Chronic bronchitis, enteritis	1/2
May 1939	M	22	Cerebral hemorrhage	3/4
May 1939	M	69	Senility	1/2
June 1939	M	73	Lobar pneumonia	1/2
June 1939	F	0	Intestinal obstruction	1/2
July 1939	F	18	Acute meningitis	1/2

Date	*Sex*	*Age*	*Cause of Death*	*% Indian*
July 1939	F	47	Syphilis	½
July 1939	F	73	Myocarditis	½
Aug. 1939	F	33	Intestinal obstruction acute	½
Aug. 1939	F	12	Chronic nephritis	½
Aug. 1939	F	57	Pulmonary T.B.	½
Aug. 1939	M	0	Acute bronchitis	½
Aug. 1939	F	36	Syphilis (148 I.L.)	½
Aug. 1939	F	0	Syphilis (stillborn)	½
Sept. 1939	M	11	T.B. of meninges	½
Sept. 1939	M	0	Hemophilia	½
Sept. 1939	F	22	T.B.	½
Sept. 1939	M	0	Premature birth	½
Sept. 1939	M	100	Anemia, senility	½
Sept. 1939	M	22	Myocarditis	½
Sept. 1939	M	3	?	½
Oct. 1939	M	36	Acute traumatic nephritis	½
Oct. 1939	M	0	Premature birth	½
Oct. 1939	F	4	Purulent infection septicemia	½
Nov. 1939	M	63	?	½
Nov. 1939	M	57	?	½
Nov. 1939	M	55	Skull fracture (car accident)	½
Nov. 1939	M	0	Atelectasis	½
Dec. 1939	M	1	Lobar pneumonia	½
Dec. 1939	F	18	Pulmonary T.B.	½
Jan. 1940	F	10	Bronchial pneumonia	½
Jan. 1940	M	0	Premature birth	½
Jan. 1940	M	0	Premature birth	½
Jan. 1940	F	0	Premature birth	½
Jan. 1940	M	20	Pulmonary T.B.	½
Jan. 1940	M	65	Coronary thrombosis	½
Feb. 1940	M	4	?	½
Mar. 1940	M	0	Bronchial pneumonia	½
Mar. 1940	F	54	Chronic chal(t)echystitis	½
Mar. 1940	?	0	Premature birth	½
Mar. 1940	F	0	Bronchial pneumonia	½
Mar. 1940	M	59	Cancer of intest.	½
Apr. 1940	M	0	Primary purpuras	½

Apr.	1940	M	38	T.B. of meninges of central nervous system	½
Apr.	1940	M	50	Myocarditis	½
Apr.	1940	F	68	Asthma, senility	½
Apr.	1940	M	39	Myocarditis	½
Apr.	1940	M	72	T.B. (pulmonary)	½
Apr.	1940	F	30	Puerperal hemorrhage	½
May	1940	M	75	Lobar pneumonia	½
May	1940	F	82	Lobar pneumonia (senility)	½
May	1940	F	60	Chronic cholecystitis	½
May	1940	M	24	Pulmonary T.B.	½
May	1940	M	3	Acute endocarditis	½
June	1940	M	67	Cancer of stomach	½
July	1940	F	62	Pneumonia	½
July	1940	F	62	?	¼
July	1940	F	92	Senility	½
Aug.	1940	M	22	General carcinoma	½
Aug.	1940	M	0	Premature birth	½
Aug.	1940	F	0	Stillborn	½
Aug.	1940	M	70	Myocarditis	½
Aug.	1940	M	74	Chronic nephritis	½
Sept.	1940	F	?	Chronic myocarditis	½
Nov.	1940	M	48	Myocarditis	½
Dec.	1940	M	53	Lobar pneumonia	½
Jan.	1941	M	0	Syphilis	½

Total .....232 cases

Average age at death.....30.8

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