San Fernando Valley State College

A SURVEY INSTRUMENT TO DETERMINE THE PERCEPTION
OF THREAT, CAUSE, AND PREVENTION OF CHOLERA

A thesis submitted in partial satisfaction of the
requirements for the degree of Master of Science
in Health Science

by

Hari Bhakta Pradhan

February, 1969
The thesis of Hari Bhakta Pradhan is approved:

San Fernando Valley State College
February, 1968
ACKNOWLEDGEMENTS

The writer wishes to express his sincere appreciation to the members of his thesis committee for their critical guidance. A special appreciation is expressed to Dr. Lennin H. Glass for his continual inspiration, encouragement, valuable suggestions, and for his untiring efforts in guiding this project.

The writer would also like to acknowledge his indebtedness to Dr. Wilfred Sutton and Dr. John M. Weiner for criticisms and suggestions. Also the writer would like to express a note of thanks to the Department Chairman, Dr. Claude T. Cook and to Dr. Don Dorsey.

Patience, understanding, endurance, wiseness, and encouragement, are terms that express his feelings about the contribution of his dearest wife Praneswori. The writer is also thankful to his relatives and friends for their encouragement and cooperation.

Lastly, the writer wishes to call attention to His Majesty's Government of Nepal and the United States Agency for International Development for the opportunity they made available to him to undergo this worthwhile training so that he might serve his country and countrymen.
The author is grateful for the able guidance, care, and direction provided by Miss Dorothy J. Stacey, Public Health Service.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. INTRODUCTION.</strong></td>
<td>1</td>
</tr>
<tr>
<td>A. Purpose</td>
<td></td>
</tr>
<tr>
<td>B. Importance</td>
<td></td>
</tr>
<tr>
<td>C. Limitation</td>
<td></td>
</tr>
<tr>
<td>D. The Setting</td>
<td></td>
</tr>
<tr>
<td>E. Definition of the Terms Used</td>
<td></td>
</tr>
<tr>
<td><strong>II. REVIEW OF THE LITERATURE.</strong></td>
<td>14</td>
</tr>
<tr>
<td>A. The Meaning of Perception</td>
<td></td>
</tr>
<tr>
<td>B. Determinants of Perception</td>
<td></td>
</tr>
<tr>
<td>C. Perception of Health and Disease</td>
<td></td>
</tr>
<tr>
<td>D. Perception of Threat, Cause, and Prevention of Disease</td>
<td></td>
</tr>
<tr>
<td>E. Conclusion</td>
<td></td>
</tr>
<tr>
<td><strong>III. THE SURVEY INSTRUMENT</strong></td>
<td>41</td>
</tr>
<tr>
<td>A. Introduction</td>
<td></td>
</tr>
<tr>
<td>B. Health Information Survey</td>
<td></td>
</tr>
<tr>
<td>C. Analysis of the Data</td>
<td></td>
</tr>
<tr>
<td><strong>IV. SUMMARY AND CONCLUSION.</strong></td>
<td>57</td>
</tr>
<tr>
<td><strong>BIBLIOGRAPHY.</strong></td>
<td>59</td>
</tr>
</tbody>
</table>
ABSTRACT

A SURVEY INSTRUMENT TO DETERMINE THE PERCEPTION
OF THREAT, CAUSE, AND PREVENTION OF CHOLERA

by

Hari Bhakta Pradhan

Master of Science in Health Science

February, 1968

This study was conducted to design a survey instrument to determine the perception of threat, cause, and prevention of cholera. Different cultures and subcultures have their own beliefs, values, and attitudes in respect to health and disease. Concepts of health and illness also vary among groups in the same culture. Consequently, the measures adopted to promote health and control disease must differ. In order to plan public health programs it is important to consider what the ordinary person thinks and does about health and disease. Then, an effective health education program might be developed accordingly.

Before the survey instrument can be put to use, it should be tested on the group where its use is intended. The purpose of testing would be to eliminate or minimize problems related to comprehension.
Questions were developed to probe for perception of threat, cause, and prevention of cholera.

It is suggested that the data gathered be analyzed according to variables such as age, sex, religion, occupation, and education. Following analysis of the data it might be possible to assign persons to groups so that special educational programs might be developed for the purpose of changing that group's health behavior.
CHAPTER I

INTRODUCTION

Different cultures have their own beliefs, values, and attitudes in respect to health and disease. As a result, the measures that are adopted to promote health and control disease differ. Conceptions of health and illness vary not only from culture to culture, but also among different groups in the same culture. The perceived ideas, habits, customs, and values that go with each group might be harmful or beneficial for maintaining healthful living. Therefore, in order to plan properly for public health programs it becomes increasingly important to consider what the ordinary person thinks and does about health and disease.

Health education in the 1960's serves as a basic tool to facilitate the development of positive feelings and attitudes of people towards health if such things are lacking. At the same time, the educational process is used to change negative feelings, attitudes, and behavior into positive or favorable ones. However, the success of health education in affecting health behavior is dependent upon careful planning of educational programs.
Proper program planning is dependent upon locating or defining a problem, exploring the nature and scope of the problem, considering various solutions to it, selecting what appears to be a feasible solution, and taking action with respect to the solution chosen.

McCormick (22:92) has summarized the following five basic steps in such planning.

1. Collecting information essential for planning, such as educational level, knowledge and beliefs about disease, social and economic life, etc.

2. Establishment of objectives.

3. Assessing the barriers to health education and how they may be overcome.

4. Appraising apparent and potential resources (organizations, personnel, materials, and funds).

5. Developing the detailed educational plan of operations (including a definite mechanism for continuous evaluation).

Before starting any health education program, information should be gathered concerning what people know, how they feel and act on their specific health problem(s). Individuals in a community usually have some health knowledge, attitudes, and practices before a program starts. In such situation a baseline of zero cannot usually be assumed at the beginning of a program. Present knowledge, attitudes, and behavior, therefore, must be determined. By so doing, it eventually becomes
reservoir of cholera is an infected person, the source of infection being the feces and vomitus of the patient. Contaminated water is an important mode of transmission of the disease. It has been suggested that flies may carry the causative agent from the wastes of the cholera patient to food. Handling of food by contaminated hands may also help in spreading the disease.

Cholera, though no longer a problem in advanced countries such as the United States, continues to be a great problem in many developing countries. Ehrlich (9:43) points out that Iran and Iraq have suffered extensive outbreaks during the years of 1965 and 1966. Cases have also been reported in Turkey, Syria, Jordan and elsewhere. Ehrlich (9:43) has added that in 1966 there were 42,000 cases and 4,000 deaths reported to the World Health Organization from different nations, as required by the International Sanitary Regulations. He also suggests that the most endemic nations continue to be the Philippines, India, Pakistan, Indonesia, Vietnam, and presumably China (9:43). All the Middle Eastern countries along the Mediterranean are considered vulnerable.

Improper disposal of human wastes and lack of a pure water supply system are the factors responsible for the spread of cholera in the developing countries. Most people in the affected countries are ignorant about
the actual cause and methods of preventing the disease. They seem to be influenced by their traditional beliefs, cultures, and superstitions which often tend to keep them from thinking about the scientific aspects of the cause and prevention of the disease. As stated by the World Health Organization, even the best sanitary installations and the most enlightened public health measures remain ineffective when they are not accepted by everybody, or properly employed, or accompanied by suitable personal hygiene. (24:265) It is also difficult to determine if many persons perceive of cholera as being a threat to their health or whether they accept the condition as being normal or unavoidable. Thus it becomes necessary to gather information concerning the perception of cholera by the people in order to plan health education programs that might help prevent or eradicate the disease.

A. Purpose

The purpose of this study is to design a survey instrument to determine the perception of the threat, cause, and prevention of cholera by community members.

B. Importance

The survey instrument, in addition to providing data at the beginning of the program, can also be used to provide data after an educational program has been completed. As a result, change, if any, may be evaluated.
The survey instrument thus prepared might also be used as an example for similar surveys of other health problems so far as its basic design is concerned. Necessary modifications would have to be made according to the nature of the community and its health problem or problems.

C. Limitation

The proposed survey instrument is not expected to gather all of the kinds of informations needed for total program planning. However, it could serve as a basic or significant part of the data-gathering process.

The instrument is particularly intended for developing countries such as Nepal.

D. The Setting

Nepal is a developing country of approximately 56,300 square miles and has a population of about ten million persons. (16:11) It is a country of villages with some towns and few cities. Many village communities are isolated from modern scientific development. Transportation and communication systems are inadequate due to the mountainous nature of the terrain.

Khatri (16:32) has pointed out that more than 90 per cent people of Nepal are engaged in agricultural and livestock production. The peasants are almost independent in their economic life, with most of the
families possessing their own house or cottage to live in, and small plots of land to grow food to eat. The income, however, is small. Thus, the majority of the people fall into the low and middle socio-economic class.

About 80 per cent of the people of Nepal are still illiterate. Females have been traditionally discouraged from getting an education. This is now changing. Public education is beginning to improve due to the tremendous effort exerted by the government and the public. Schools are being established throughout the country.

Nepal, though a small country, exhibits some racial, ethnic, linguistic, and cultural diversity. In spite of the different mother tongues, almost all Nepalese can understand and speak Nepali, the national language. Nepali is taught in all schools. In spite of the social and cultural diversity, the Nepalese have a desire to respect others and the ability to accept and love others as they are. These attributes have enabled them to live together successfully and peacefully, creating a strong feeling of nationality and national progress among the entire population.

Nepal is the only Hindu kingdom in the world. Khatri (16:50) points out that there are 90 per cent Hindus and 8.5 per cent Buddhists in the country. The balance are Moslems. Though predominantly a Hindu society, the Hinduism and Buddhism in Nepal are very
similar. No sharp line of distinction can be drawn between the two religions, for in many places the two faiths have become more or less fused. The beliefs and practices as well as the gods and shrines of both are equally honored by the people. In the Hindu culture and religious practices, some beliefs and values have developed which are superstitious in nature and have acted as barriers to healthful living and sanitary development. Because of the high illiteracy rate, many people do not have the opportunity to be exposed to new ideas and still hold the age-old traditional ideas and beliefs. Most of the people do not believe or have no knowledge of the germ theory of disease. Diseases such as cholera and diarrhea are believed to be caused by ghosts or evil spirits. The treatment therefore is to make an effort to please the spirit by making offers such as rice and other vegetables. The Nepalese believe that river water is holy. As a result, they drink and bathe in it without concern of disease. If they become sick after eating a particular food, they tend to blame the food item itself as being stale or undigestible. Most of them do not have any idea of food contamination or water pollution.

High illiteracy, low economic status, limited medical facilities, lack of adequate health knowledge, and poor sanitation have led to many health problems.
There are occasional outbreaks of cholera, typhoid, and small-pox epidemic. In 1965 there were only 200 medical doctors for the entire population, most of them concentrated in the cities. However, public health activities have been broadened in the country by establishing health units in the rural areas. Organized public health education programs were started around 1961, but are still limited to a few towns and cities. So far, eight trained public health educators try to provide a program for the entire country.

Pulbazar is a fairly typical rural community in Nepal where health education programs are needed. It is here and in similar communities where health surveys should be conducted to determine barriers to improving health conditions. The community has about 500 residents, most of whom are from the low socio-economic class. There is no local school, but some children are able to go to primary and even secondary schools in Banepa, a nearby community of about 10,000 persons.

The community is situated near a river which is used as a source of drinking water. The river is open to pollution as the people have maintained the bank of the river as an open community latrine. In addition, the river is used for bathing, washing of clothes, and for the disposal of garbage. The community also has a water line coming from another village which serves as an additional source of drinking water. This water is
also subject to pollution since the people of the village where the water is supplied also pollute the water in the same way as the people of Pulbazar.

The religious and cultural background of the community of Pulbazar is similar to that of the rest of the country. There is strong faith in religion, gods and goddesses. Most of the people are traditional, superstitious and lack scientific health knowledge.

Parasitic diseases and other communicable diseases such as cholera, typhoid fever, and dysenteries are quite common. Though many people of the community are literate, they have not been exposed to health-related materials, and may lack health knowledge. Medical services are available through a mission hospital and a small dispensary. However, most of the people do not seem to utilize the facilities. They are more inclined to use the practitioners of folk or indigenous medicine. In many cases they tend to neglect ill health conditions.

Some community people in Pulbazar have expressed interest in having a pure water supply. However, this does not represent the prevalent thinking. More information is needed to determine barriers to this type of health activity. Appropriate health education may encourage the community members to achieve the development of a pure water supply. Education efforts which try to change knowledge, attitudes, and behavior may encounter some negative reactions if not properly carried
The people are aware of their culture and tradition, and so they seem to be reluctant to accept proposed changes from outside. Proper planning and evaluation of the health education program are basic to achieve success in respect to change.

E. Definition of the Terms Used:

Attitude: An attitude is a tendency to act in some way toward some person or situation or object or idea. It is measured by the individual's behavior and is goal directed.

Beliefs: Beliefs are a part of the cultural fabric which people have devised to fit their particular adaptation to life.

Community: The term community refers to all the people residing in a specific geographic area.

Contamination: The term suggests the presence of an infectious agent.

Culture: Culture is the sum total of what human beings learn in common with other members of the group to which they belong.

Developing country: A developing country is one where the economy is agrarian, where limitations of transportation and communication act as primary obstacles to a country's development, where infectious disease and
parasitism remain as the chief causes of morbidity and mortality rate, and where most people are still illiterate and ignorant about the scientific knowledge of disease; but progressing towards their improvement.

**Evaluation:** The term evaluation refers to the process of determining the value or amount of success in achieving a predetermined objective.

**Health education:** Health education is the process of providing experience for the purpose of favorably influencing knowledge, attitudes, and practices, relating to individual and community health.

**Health knowledge:** Facts, information, and understanding that people have in relation to health may be called health knowledge.

**Perception:** Personal responses to stimulus may be described as perception.

**Pollution:** The term implies the presence of an offensive but not necessarily infectious agent.

**Practices:** The term is used in relation to health. Therefore, it is defined as behavior or conduct in all situations involving individual and community health.

**Survey:** The term survey implies to the gathering of data by means of a questionnaire.
**TABC:** A vaccine containing antigens for typhoid, paratyphoid, and cholera is called TABC.

**Value:** Value refers to something important to the individual or group concerned.
CHAPTER II

REVIEW OF LITERATURE

A. The Meaning of Perception

Man behaves according to the facts as he sees them. The behavior of an individual is governed by his unique perceptions of himself and the world in which he lives, the meanings things have for him. Comb and Snygg (5:18) have said that the personal meanings which govern an individual's behavior are what psychologists call perception.

Allport (2:14) has defined perception as the way things look to the individual, or the way they sound, feel, taste, or smell. It involves, to some degree, an understanding, an awareness, a meaning, or a recognition of these objects.

Though sensory organs are the means through which perception takes place, human perceptions extend beyond the mere experience of sight, hearing, smell, taste, and touch. Ideas, values, concepts, perception of relationships, and meanings are added and as a result transcend the limitations of sense organs. Kohler suggests, "The world looks today what our forefathers learned to say about it; we act and speak accordingly."
What were once new ideas and concepts are matter-of-fact perceptions of people today." (5:92)

How a person behaves with respect to any situation tends to be in accord with how he perceives and defines that situation. What he does not perceive does not exist for him. It makes no difference how the situation may be defined by another, even a competent observer. Foster illustrated this concept in the following way:

...The U.S. Navy landed on a Pacific island in World War II. The health officer felt that the presence of flies constituted a health problem that, with the assistance of the natives, could be easily conquered. He asked the chief to assemble his people, to whom he gave a health lecture illustrating the horrors of fly-borne diseases with a foot-long model of the common housefly. He believed he had made his point until the chief replied, "I can well understand your preoccupation with flies in America. We have flies here, too, but fortunately they are just little fellows," and he gestured with thumb and forefinger to show their small size and, by implication, lack of menace to health. (10:122)

Since perception is personal, two persons with the same system of percepts will still perceive the same situation differently because of different hopes, fears, and expectations they have brought into the situation with them. Ruch (30:302) describes perception in a similar fashion. He suggested that the same objective situation may be perceived in two different ways by two different people or even by the same person at two different times.
Perception uses both sensory data from present stimulation and the learning gained from past experiences. Cantril (4:67) has explained that what a man perceives is not determined entirely by the nature of what is out there or by his sensory processes. The assumptions he brings from past experiences, because they have generally proved reliable, are also involved in every perception.

Knutson suggested certain steps which must be completed before the individual has perceived or acquired meaning regarding his environment:

1. Scanning the environment.
2. Searching for meaning.
3. Organizing the sense data indirectly received by the sense receptors into figure and ground and into form and shape.
4. Determining what to attend to and what to ignore.
5. Determining degrees of significance between alternative possible meanings.
6. Deciding to which of many sense modalities to give primary attention.
7. Integrating with memory traces of past experience.
8. Orienting in terms of expectations.
9. Predicting the action that offers the highest probability of success for the individual. (20:169-170)

Knutson (20:170) explained that the steps described are not distinct nor clearly discernible and ordered as outlined. There does, however, seem to be a flow process among them.
Man's perceptual process is selective. He cannot perceive everything at once nor can he perceive everything in equal emphasis. What is perceived tends to be governed by personal interests, wants, concerns, anxieties, fears, hopes, and expectations. During an epidemic of a particular disease, a man tends to be aware of that particular disease and not clearly perceive the presence or nature of other diseases and tends to forget even other aspects of his daily living or needs.

B. Determinants of Perception

Katz (15:494) pointed out that perception of an individual is influenced by two factors: by social and cultural custom, and by the personality of the perceiver. King (18:34-35) has presented a similar view. He outlined three kinds of determinants of perception: physiologic, psychologic, and sociocultural.

1. Physiologic Determinants

Hunger, thirst, fatigue, and sexual drive are physiologic factors. Levine, et. al. (21:283-293) conducted a study regarding the effect of hunger on perception. Groups of hungry students were compared with those who had just finished eating. Each group was presented ambiguous pictures covered by a ground glass screen. The students were asked to describe what they saw. The hungry groups more frequently reported seeing ham sandwiches, salads, and other foods.
than did those who were not hungry; even though the same pictures had been presented to both groups. Given a similar situation one might suspect that messages regarding preventive health measures might be less meaningful to people who are concerned with other overwhelming problems.

2. **Psychologic Determinants**

King (18:42-43) divided the psychologic determinants of perception into three areas: psychogenic needs, adaptive and defense mechanisms; and beliefs, attitudes and values.

a. **Psychogenic needs**

According to King, psychogenic need is accompanied by a particular feeling or emotion, and even though sometimes weak or momentary, it usually persists and gives rise to overt behavior or fantasy, which may change the external circumstances sufficiently to appease or satisfy the organism and still the need. (18:43) According to him psychogenic need may be manifest or latent. (18:43-44) A physician with high needs for dominance and autonomy may have a very difficult time treating a patient with a similar pattern of needs, and a much easier time with a patient characterized primarily by needs for deference and passivity.
b. Adaptive and defense mechanism

People have different needs that may be operating at the same time, some manifest, some latent. Often the needs operate at cross purposes, wherein the satisfaction of one constitutes the rejection of another, thus operating the adaptive or defense mechanism. As mentioned before this is what may be termed as selective perception. A man with a high need for achievement makes a sizable profit on a land transaction at the expense of a close friend and need for association.

c. Beliefs, attitudes, and values

Beliefs, attitudes, and values serve to provide continuity from one situation to the next, to give a structure to one's psychological world. They aid the individual in his attempts to find meaning in the events that occur around him.

The effect of attitudes on perception may be illustrated in the following manner. A patient from a rural area where illness is usually treated by primitive remedies will go to the doctor or hospital only as a last resort after all other traditional treatments have failed. Another patient from an urban area who routinely utilizes modern medical procedures will come to the hospital readily when stabbing abdominal pains and nausea tell him that he has more than an upset stomach.
The first patient may perceive hospital procedure with suspicion, having the belief that doctors often experiment on people, especially if they are strangers. The second patient may perceive the hospital or doctor as a source of help and will submit to procedure with trust.

In the same way the effect of values on perception can be illustrated by several examples. A person with a time orientation toward the present will have difficulty in seeing the value of immunization against disease, a future benefit. Also, a person's view that man is subjugated to the rule of nature may lead the individual not to seek any medical help in time of disease. He would believe that the inevitable fate cannot be overcome. On the other hand, the individual who views man as overcoming nature may act in a quite opposite way.

3. Sociocultural Determinants

The social milieu in which individuals are reared and in which they live provide a variety of factors that determine the process of perception and of subsequent behavior. King (18:65) lists the following factors:

Culture and sub-culture --- concepts that are important to and understanding of the broad social matrix; Roles and positions --- the anchoring points around which people organize their lives; Social class and ethnic group --- the variables that stratify or divide people; and folkways and mores --- guides for behavior.
a. **Culture and sub-culture**

People in different cultures perceive events or things differently. Mead (23:228) describes efforts to convince some tribes in the Philippines to bore wells to increase the water supply. Tribal members who objected stated that God wanted water to run on the surface of the ground. If he had wanted it in holes he would have provided it for the people in holes. Sub-cultural groups in a given culture also vary in the extent to which they perceive a set of circumstances as constituting illness or health. Saunders (31:173) has stated that middle-class Mexican-Americans generally accepted Anglo medical ways, while lower-class Mexican-Americans are more likely to believe in magic and to rely heavily for medical knowledge and treatment on folk medical beliefs and practices.

b. **Roles and positions**

According to King (18:70) position refers to location in a social system, while role is the set of attitudes, values, activities that constitute the behavior of the person occupying that position. For example, the career woman with small children may have difficulty in perceiving what to do when they develop the mumps. The expectations of her mother role would lead her to see her place as at home, yet the expectations
of her career role would lead her to define the situation as one requiring a good nurse and baby sitter but not an interference with her career life.

c. Social class and ethnic group

Social class and ethnic groupings also provide the framework for common values, customs, and other modes of living. Consequently, they influence the manner in which an individual within the group will perceive social situations and things that are concerned with health and disease. Jenkins (13:420) studied three ethnic groups namely the Negro, Latin, and Anglo. It was found that Negroes believed tuberculosis to be more frequent in the population than did either Anglos or Latins. Jenkins (13:421) also studied the different social classes and found a difference in their perception of the disease. The top social class (upper and upper middle classes) felt far removed from tuberculosis. Classes II, III, and IV clustered together in their perceptions, but, in that rank order, showed increasing tendency to believe that tuberculosis attacks larger numbers of people.

d. Folkways and Mores

Folkways and mores also influence perception and behavior. Folkways are the accustomed and time-honored ways of doing things, the social habits that become
routine. They are often performed without thinking. Mores are customs which are regarded as sacred and necessary to social welfare even though people in other societies may think of them strange.

Folkways and mores may vary from culture to culture and from one sub-culture group to another, and consequently the variation in perception.

C. Perception of Health and Disease

Since perception may differ from person to person and from culture to culture it seems reasonable to suggest that perception of health and disease also differs. Failure in public health efforts is often due to the differences in the meanings given to health events by professional and lay persons. A trained health worker can perceive pollution in river water because his perception is linked to scientific understanding. But the people who lack such understanding also view the water in a specially conditioned way. Their culture causes them to view the same water in quite a different way but one that is just as meaningful to them. The Hindus, for example, are traditionally conditioned to perceive river water as holy and so for their goodness they bathe in it to please God and they drink it. They do this despite the concern of the health worker regarding known pollution.

There are cultures where illness or death is perceived to be the part of fate. As a result, preventive
or curative procedures are ignored. Foster (10:67) describes a study conducted by Virgania Gutierrez de Pineda, a Columbian anthropologist, concerning the cultural factors involved in the perception of the high rate of infant mortality in a rural area of her country. She pointed out that when an ill child recovers, the parents say, "See, he recovered without medical attention: God did not intend him to die." When she would urge parents to take an ill child to see a doctor, often they replied, "The rich also die, in spite of having so much money for medical care." Foster (10:123) cited another example of the perception problem in health and disease in cross-cultural perspective in Egypt. As in much of the newly developing world, the hospital is perceived as the place where people go to die and not to get well; consequently there is much resistance to hospitalization because the patient perceives it as meaning his family has lost all hope for him. Foster (10:230) has also pointed out that investigation in Indian villages near Guatemala City revealed that opposition to blood withdrawal was based on the belief that blood is non-regenerative, that each person has only so much for an entire life. Therefore, the extent to which it is lost, the individual is permanently weakened. There are cultures where the blood sample taken for malaria control is believed to be used for witchcraft directed against
the victim. Foster (10:223) has indicated evidence of such belief among the red Indians. In Nepal, such blood is believed to be used for human sacrifice to godlings, to please the concerned godling for specific purpose, and that such victim will die sometimes in the near future.

Mead (23:228) has described how Egyptians perceived their natural environment or objects in relation to their health and disease. They perceived illness as God-sent and it has nothing to do with the water supply or any other part of the environment. Water is God's water and is as God wants it to be. Mead (23:228) also outlined various feelings about water as a source of disease that were present among the Spanish-speaking people of New Mexico. They ignored the idea of the possibility of pollution or contamination from familiar people or objects, thereby quickly contaminating their wells.

DiCicco and Apple (7:479,486) studied health needs and opinions of older adults in a section of a large urban area. They found that the perception of health among this group was influenced by their concept of activity. Health was important only as it became poor health and interfered with daily activity and maintenance of independence. A man with a vague and chronic discomfort in the chest who suffers no interruption
in his daily duties was seldom seen as sick, even though from a health worker's point of view he might need medical attention urgently. Cornely, et. al. (6:24) studied 408 families consisting of 310 Negroses and 99 Whites to determine their perception of achieving health. They found that the people perceived that staying healthy was nearly always related to good health habits, such as proper food taking, living moderately, and getting sufficient sleep, rest, and exercise. Handwashing was mentioned by most of them as desirable before eating and preparing foods but was mentioned only by a few in connection with other occasions, such as after using the toilet or handling soiled objects. Immunization, early diagnosis and prompt treatment of illness were rarely mentioned as being of value to positive health.

D. Perception of Threat, Cause, and Prevention of Disease

Different people, especially under different socio-cultural condition, perceive health and illness differently. The behavior of an individual in respect to illness or disease is basically controlled by three factors, threat, cause, and prevention. If people perceive a certain disease as personally threatening, and if they know the actual cause and proper method of prevention, they might possibly take appropriate actions and get positive results.
Young, et al. (32:31) suggest that a person's perception of a health threat is seen as hinging on two beliefs: perceived susceptibility and perceived severity. Rosenstock (28:297) amplifies the meaning of severity by including beliefs about consequences in areas such as family relationships, finances, and occupation along with the clinical problems.

A national health survey conducted in 1963 further emphasizes these ideas:

The survey was conducted to find out the perceived vulnerability to disease, perceived consequences of disease, and beliefs concerning the beneficial effects of taking preventive, remedial, or diagnostic actions to mitigate the threat or consequences of disease. Four health topics were chosen, namely cancer, tuberculosis, tooth decay, and gum disease. (19:248-249) A stratified, multi-stage probability sample of 1,493 adults, 21 years of age and older was obtained by employing the Standard Survey Research Center sampling procedures. (19:249)

The result about the beliefs on perceived susceptibility and seriousness showed that cancer is seen as likely to occur and is a very serious disease. Tuberculosis, although regarded as serious, is not seen as likely to happen, nor is gum disease seen as very likely, although it too is perceived as fairly serious. Relatively few people see tooth decay as a severe condition, but it is viewed as likely to occur. (19:249)
As to the beliefs concerning the prevention and benefits of early detection, 5 per cent of the respondents said that there was nothing one could do to prevent dental disease. Among those who believed that the disease is preventable, tooth-brushing was widely believed to be a preventive measure, and many persons specified that brushing should be done after meals. Fewer people believed in the efficacy of dental visits for prevention of dental disease. (19:251-252) With respect to tuberculosis, 19 per cent of the respondents believed that there was nothing that could be done to prevent the disease. Those who felt that something could be done were asked to specify what might be done. More than half of the group mentioned such items as avoiding contagion, getting rest and fresh air, and eating a balanced diet. An additional 34 per cent mentioned taking tests and checkups. (19:252) As to the cancer, 14 per cent of the respondents thought nothing could be done to prevent the disease. Of the group reporting that something could be done, the only frequently mentioned response was to "avoid smoking," representing 21 per cent of the respondents. 59 per cent of the group that thought prevention was possible mentioned tests and checks as a preventive. (19:252)

The results of the survey present the evidence that perception of the susceptibility, severity, and prevention
of disease by the people may vary. One might conclude that in order to bring about change in health behavior, an educational program would need to be developed that would increase beliefs in susceptibility, severity, and benefits of preventive actions taken.

Hsu (27:135-153) also acknowledges the relationship of perception to health behavior, utilizing information relative to a cholera epidemic in a Chinese town: Cholera, a common and dreaded disease in China, struck many of the inhabitants of the town of Yunnan province and deeply disturbed everyone. The local health workers knew that the cause of the epidemic was bacterial, that the source of the infection was fecal contamination, and that with proper sanitary measures taken the epidemic of the disease could be prevented. They worked with great effort but their efforts were largely wasted. The inhabitants had their own explanation for the tragedy and their own counter-measures. The average people believed that the disease was brought about by god-sent spirits, and could only be recalled by gods. Misconduct and breach of moral code were the causes of the epidemic for the people. Actions were taken to please the gods such as prayer meetings, animal sacrifices, use of charms, and other devices to ward off the disease spirits.

The people of Yunnan province as they were reared in their own cultural milieu retained their traditional views regarding the cause and prevention of cholera.
though they were aware of the threat of the disease. Other research shows similar misconception about disease among various people, cultures, and sub-cultural groups. As regards the cause of disease, Paul (27:168) said that the people of Baug Chan, Thailand perceive sickness as due to the imbalance of the four basic elements -- earth, wind, fire, and water. The elements may get out of proportion so that fire dominates, producing fever; or winds may blow upward instead of in a circle through the body, producing belching, headaches, and dizziness. This fact indicates that these people might also have their own way of treating or preventing the disease. Still other forms of perception of disease may be found among the Magars, one of the ethnic groups in Nepal, who have their own way of curing the disease which is related to their perception of the cause of sickness. Hitchcock (12:30) illustrates this in the following manner:

When someone in the Magar family is ill they promise a puja (worship) to the specific godling with a reputation for exceptional power. If a child is sick, the father goes to the spring, takes a bath, and puts on clean clothing. When he comes home, he makes a leaf plate and puts some rice in it, along with a copper piece. The coin stands for Shiva, the God who becomes a witness to the promise. The father touches the child with the leaf plate and says, taking the name of the godling he wishes to call on for help, "please trouble this child no more, and I will do a puja for you." The plate and its contents are hidden away somewhere until the puja has been done and serves as a reminder of the promise.
Kilander (17:149) has called attention to two surveys conducted to evaluate the health knowledge of the public in different fields of health. One survey was conducted by himself in 1936. It consisted of a sample of 3,000 people including grade school and college students, and adults representing a variety of occupations such as teachers, businessmen, and housewives. The other survey was conducted by Public Health Service in 1939 and 1940 with a sample of 100,000 people.

Kilander (17:149-150) presented the concluding result of both studies as they related to tuberculosis. They reported that 46 per cent of the respondents thought tuberculosis could be inherited, 40 per cent believed that it was primarily an infection (infected cow's milk, and infected persons were indicated sources), and 36 per cent were convinced that it was primarily caused by faulty nutrition. Forty-three per cent indicated that rest is most important for recovery and very small numbers stated that tuberculin injection was a means of preventing or curing tuberculosis.

The results of the surveys suggest that perception of cause and prevention of disease by people may differ irrespective of their education and occupation.

Neill, et. al. (26:44) have presented the different responses given to the question asked about how people get polio:
1. Lack of knowledge and helplessness, e.g. don't know, it just happens, fate.

2. Reference to lowered resistance or crowds without mention of infection, e.g. fatigue, poor nutrition, weakness, crowds.

3. Reference to contamination or infection, e.g. flies, unclean good, germs, sewage.

Ahluwalia presented findings from interviewing of 222 persons of different educational level, sex, age, occupation, from rural and urban areas in India to study public misinformation on communicable disease during the health exhibition at the Kurukshetra Fair in November, 1965. The questions asked about smallpox and how the people perceived the disease as related to its cause and prevention are given below:

What is the cause of smallpox?

Only 29 per cent knew that germs caused the disease, while the rest attributed it to annoyance of the Goddess Devi, to bad air, bad diet or to God's scourge.

How can smallpox be prevented?

About 40 per cent said that the disease could not be prevented at all or could be prevented by worshipping the Goddess or by eating good food, while 60 per cent knew that it could be prevented by vaccination.

What is the treatment for smallpox and can it be cured or not?

30 per cent thought that smallpox could be treated by praying to God, by offerings to the temple or by folk medicine treatment. (1:12-13)
The results of the study further emphasize how differently people perceive disease. Lack of scientific knowledge, superstitions, and incorrect interpretation also influence beliefs, culture, and tradition.

Baumgartner (3:257) discussed a nationwide survey of White adults conducted in 1941 to determine beliefs relative to the efficacy of vaccination against diphtheria, smallpox, and typhoid fever. It was found that 91 per cent of the sample did not believe in the efficacy of these vaccines and expressed the fatalistic attitude that "if you are going to get it, you are going to get it."

D'Onofrio (8:26) has suggested that when an individual is faced with the threat from a disease, he will react in one of three ways: This can't happen to me, I want to keep this from happening to me, I can't help it if this happens to me. D'Onofrio (8:29) has further suggested that the failure to take precautions against a disease may be because: the individual feels no threat, and hence no need to take precautions; the individual feels threat, but does not know what precautions to take; the individual feels threat, but is fatalistic, and therefore takes no precautionary actions.

Rosenstock, et. al. (29:99) suggest that the factors of personal readiness including the motives, attitudes, and beliefs of individuals affect their
willingness to take voluntary action with regard to their health. In connection with poliomyelitis vaccination, three components of a person's readiness to seek vaccination can be identified: the extent to which he believes he may be susceptible to the disease; the seriousness with which he regards the consequences of getting the disease; his concept of the safety and effectiveness of the vaccine.

Rosenstock (28:297) explained that in order for an individual to take some given course of action relative to a real or potential health problem, he must not only feel threatened by the health problem, but he must also see one or more course of action open to him, which he believes would either reduce the likelihood of occurrence or the seriousness of the problem.

Johnson, et. al. (14:16-32) discussed the research made under Florida State Health Department along the basic line as stated by Rosenstock. They studied the perception of threat, cause, and prevention of polio by the people of Dade County and how polio vaccine was perceived as the preventive measure. They conducted the polio vaccination program in 1960 and studied the acceptance rate of the vaccine in relation to the perception of threat, cause, and prevention of the disease. The study was done by means of interview of the people under forty years of age. The discussion of the study follows:
1. Perception of Threat

Expecting that a person's perception of the local incidence of polio should give a comparative rating of his own perceived susceptibility the interviewers asked the question: "About how many people in Dade County had polio last year?" (14:16) It was found that those who were better informed as to the correct status of the disease were most likely to take vaccines, whereas the poorly informed tended not to take vaccines. (14:17)

Shifting from perceptions of general susceptibility to a more specified focus on the respondent's own age range, the question was asked: "Do you think the chances of people your age getting polio are greater than, less than, or about the same as they are for children?" (14:18) About two-thirds of the respondents thought adult chances of getting polio less than the susceptibility of children. The probability of taking vaccine increased gradually with perception of increased susceptibility but the association was not strong enough to reach the .05 level of statistical significance. (14:18)

It appears probable that perceived susceptibility was a factor associated with the taking of vaccine in the Dade County study.

Again, expecting that a person's perception as to the severity of a disease would be associated with the likelihood that he would take action to protect himself
against that disease, respondents were asked: "When adults get polio, do you think they usually have a milder, or a more severe case than children do when they get it?" (14:19) It was found that the group who perceived the disease as equally severe in adults as in children were more apt to take the vaccine. (14:20)

An alternative way of estimating perceived threat or subjective fear was also used. It was expected that those who had built up a fear of the disease over a long period of time would take vaccine more than the unworried. With this in mind, the question was asked: "Within the last few years, have you ever worried that you yourself might get polio?" (14:22) The persons who said they had worried about getting polio were asked: "What worried you most?" (14:23) There was a variety of responses: vague fear, "just the fear of getting"; cost of medical care; inability to work or care for the family; possibility of crippling; death. (14:23)

Again it was expected that personally knowing a victim of polio would increase fear of the disease and thus encourage the taking of preventive measures. So, the question was asked: "Have you known anyone who had polio?" (14:23-24) It was found that about one-third of the respondents knew a polio patient, and these respondents took vaccine at a higher rate. (14:24)
2. **Perception of Cause**

It was expected that the more a person knows about an illness condition the more likely he is to take intelligent preventive measures. So, respondents were asked the question: "In your opinion how do people happen to get polio?" (14:25) It was found that the "don't know" group took vaccine least often, and persons mentioning virus or a combination of virus with some comment implicating mode of transmission or reduced resistance took vaccine in the highest percentage of cases. (14:25)

3. **Perception of Prevention**

It was thought that highest acceptance rate of vaccines would be found among those mentioning vaccines as preventive measures. Respondents were asked: "What are some of the things a person can do to reduce his chances of getting polio?" (14:27) They found that a readily reportable belief in vaccines as preventive measure is associated with increased likelihood of actually taking the vaccine. Yet such beliefs by themselves are by no means strong enough to insure a sufficiently high rate of vaccine acceptance. It was found that 25 per cent who did not mention vaccines as preventives took vaccines for granted or at the suggestion of someone else. (14:28)
It was also thought that those who believed that the vaccine was effective in preventing polio would have high acceptance rate. 82 per cent of the respondents who took vaccination indicated their faith in the vaccine. But 60 per cent of the respondents who had not taken the vaccine also stated their belief in the vaccine. (14:28)

The data indicated that faith in the vaccine was not sufficient to assure participation in the vaccination program.

The research workers have found differences in vaccine acceptance rate according to variables such as sex, education, ethnic group, religious group, social class, social participation, family composition, etc. (14:32-48) It was also found that the perception of the threat, cause, and prevention of polio by all the respondents was not the same.

The data analysis of the above study indicated that most of the expectations came to be true though in some cases there was no statistical significance. However, the relationship between taking vaccine and perceived worry, was not clear. It was found that fear or worry of illness did not differentially influence preventive health behavior. A point of comment could be made in this respect since the interviewers or research workers did not probe deeply enough to reach an accurate conclusion. They asked just a one dimension
question and omitted the other dimension which has to do with the knowledge aspect. An example was the asking of respondents who said they were worried about getting polio: "What worried you most?" and the alternative answer they wrote "Possibility of crippling." The proposed question could be split into two dimensions, such as:

(a). How does a person become crippled by polio?  
-----Knowledge dimension.

(b). Are you worried about being crippled by polio?  
-----Fear dimension.

The respondents who have the knowledge about the nature of polio are supposed to be more rational and the respondents who do not have such knowledge are supposed to be emotional or irrational. So, the respective behavior might become different. The result of the vaccination program does not distinguish between these two possible groups.

One general comment might also be presented about the nature of the question they asked. They totally missed asking the symptomatic question about the disease. Some respondents might not know or they might be confused at what polio is or what symptoms it carries. To be sure of the fact that they recognize the disease there should
be included some symptomatic questions. This helps the researchers to draw the clear conclusion and analyze the data more accurately.

E. Conclusion

One can conclude that how people perceive a particular disease as a threat, how they perceive the cause of the disease, and what kind of perception they have about the prevention of the disease will bear some relation to their courses of action.

The foregoing discussions constantly emphasized that individuals are guided in their actions by their perceptions which are based on traditional culture and belief. They do not necessarily perceive the world about them in an accurate manner because their perception is colored by their own individual or group meanings. This difference in perception is, of course, quite significant for the health worker who plans health programs. He must know how people perceive disease or health problems in order to properly plan any program.
CHAPTER III

THE SURVEY INSTRUMENT

A. Introduction

The following survey instrument should not be considered as a final product. Before it can be put to use, it must be tested on the group where its use is intended. The purpose of this testing would be to eliminate or minimize problems related to the comprehension of the target group. It is suggested that each time the target group is changed, the testing procedure be repeated.

The following questions have been grouped according to the perception of threat, cause, and prevention of cholera. When the instrument is actually used, it might be well to randomize the questions so that the respondent would not be influenced by the order of the questions.

Before the survey instrument is put to use, it must be determined if the respondent will answer by filling in the form or by answering an interviewer. The format of the questions will be affected by the decision. Direction for answering would then be provided according to the format chosen. Two factors that will influence
the development of the survey form are the literacy rate of the target population and the availability of interviewers.

B. **Health Information Survey**

<table>
<thead>
<tr>
<th>Age</th>
<th>Sex</th>
<th>Religion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupation</td>
<td>Education</td>
<td></td>
</tr>
</tbody>
</table>

**PERCEPTION OF THREAT**

A. **Perceived susceptibility**

1. How many people do you think suffered from cholera in your community last year?


2. Do you know anybody who has suffered from cholera during the past year?

   ____ 1. Yes.  ____ 2. No.

   If yes, who?


3. To what extent do you think cholera might occur in your community this year?

4. If any of your friends get cholera, do you think you might also get it?

____ 1. Very possible. ______ 2. Possible.
____ 3. Not possible.

5. What symptoms are common to the person sick with cholera?

____ 7. Thirst.

6. If a man has had cholera once, he will never get it again.

____ 1. True. ______ 2. False.

7. Do you think cholera is still a problem in your community?

____ 1. Yes. ______ 2. No.

8. What do you think the possibility of your acquiring cholera sometime in the future?

____ 1. Very possible. ______ 2. Possible.
____ 3. Not possible.
9. Are you worried that you might get cholera?
   ____ 1. Yes.  ____ 2. No.

10. Have you ever had cholera?
    ____ 1. Yes.  ____ 2. No.
    If yes, when? __________________________ (note year)

11. What do you think the chances are of people of your age group getting cholera as compared with children?
    ____ 1. Greater.  ____ 2. About the same.
    ____ 3. Less.

12. Mark the statement (s) you think is (are) correct.
    ____ 2. Only poor people get cholera.
    ____ 3. Cholera may occur both in adults and children.

13. What kind of person do you think has a greater chance of getting cholera?
    ____ 1. One who does not take cholera or TARC vaccination.
    ____ 2. One who does not have an adequate diet.
    ____ 3. One who does not take a daily bath.
    ____ 4. One who does not smoke.
B. Perceived severity

14. Do you think cholera is dangerous?

   _   1. Yes.         _   2. No.

   If yes, why?

   _   1. It may cause death.
   _   2. It may cause illness for several days.
   _   3. It may weaken health permanently.
   _   4. It may cause damage to body organs.

15. What would you do if you thought you had cholera?

   _   1. Get treatment from physician immediately.
   _   2. See other practitioner.
   _   3. Wait and see if it would go away without treatment.
   _   4. Wait until it is serious.
   _   5. Make prayer to God.

16. What do you think are the symptoms of cholera?

17. How many people do you think died of cholera last year in your community?

   _   1. Many.         _   2. Few.
   _   3. Very few.
18. Do you personally know anybody who died of cholera within the past three years?
   ____ 1. Yes.  ____ 2. No.
   If yes, who?
   ____ 1. Relative.  ____ 2. Friend.
   ____ 3. Both.

19. Mark the statement you think is true.
   ____ 1. Cholera is not dangerous to life.
   ____ 2. Cholera may cause death if not treated in time.
   ____ 3. Though it may take a long time to recover, cholera is not a deadly disease.

20. What other things are more threatening to your community than cholera? (list no more than three)
   1. ____________________________
   2. ____________________________
   3. ____________________________

21. Mark the statement (s) with which you agree.
   ____ 1. I do not believe cholera or TABC vaccination will help prevent cholera.
   ____ 2. Cholera or TABC vaccination helps in preventing cholera, but I don't take it because I am not worried about getting the disease.
3. I am worried about getting cholera, so
   I want to take cholera or TABC vaccination
   to prevent the disease.

4. Cholera is a mild disease, it can be
definitely cured if it occurs.

PERCEPTION OF CAUSE

1. Water that comes from pipe line is safe to drink.
   ___ 1. Yes.  ___ 2. No.

2. Water that comes from the well that is deep in the
   ground is safe to drink.
   ___ 1. Yes.  ___ 2. No.

3. Mark the statement (s) you think is (are) correct.
   ___ 1. Occurrence of cholera is a natural phenomena.
   ___ 2. Cholera is a God-given punishment to the
       people for their misconducts and breach of
       moral codes.
   ___ 3. Poor nutrition is the main cause of cholera
       attack.
   ___ 4. Cholera is a disease caused by evil spirit.
   ___ 5. Improper disposal of human wastes and lack
       of pure water supply are the factors that
       contribute to cholera cases.

4. Mark the statement (s) you think is (are) true.
   ___ 1. Flies are harmful to people because they
       can cause cholera.
   ___ 2. Flies may carry cholera germs so they can be
       harmful to people.
   ___ 3. Flies have nothing to do with the spread of
       cholera.
5. Water is a God-given gift so it does not carry disease germs.

___ 1. Yes.  ___ 2. No.

6. River water is holy, therefore, it does not cause cholera.

___ 1. Yes.  ___ 2. No.

7. It is man's fate to get cholera.

___ 1. Yes.  ___ 2. No.

PERCEPTION OF PREVENTION

1. Mark what you think would be the appropriate method of preventing cholera.

___ 1. By drinking pure water.
___ 2. By worshipping God.
___ 3. By eating nutritious foods.
___ 4. By having daily exercise.

2. If a person in your community had cholera what do you think others should do in order not to get the disease? (Mark the preferred action)

___ 1. Start taking cholera or TABC vaccination.
___ 2. It is enough if they don't go to see the patient.
___ 3. Start worshipping or giving sacrifice to God.
3. Mark the statement you think is true.

____ 1. If a person with cholera dies, the disease goes away with him, so there is no danger of the disease being transmitted to others.

____ 2. Even if a patient with cholera dies the disease might be transmitted to others if his clothes and other personal articles are not disposed of properly or washed well with soap and hot water.

4. Some people feel that cholera can be transmitted through the stool and vomit of a cholera patient, what do you think about it?


____ 3. Don't know.

5. If a friend of yours suffered from cholera how many of the following steps would you take.

____ 1. Suggest that his family take him to hospital for treatment.

____ 2. Suggest that he be isolated if they preferred home treatment by a physician.

____ 3. Go and see the patient because it is your duty.

____ 4. Go and see the patient so that he may feel better.

____ 5. It is good to take him to a hospital for treatment but I don't want to say anything to his family.

____ 6. Suggest that his family promise some sacrifice and worship to God.
6. What is your source of drinking water?
   ___ 1. Well.         ___ 2. River
   ___ 5. Creek.        ___ 6. Lake
   ___ 7. Pipeline reservoir.

7. Why do some people boil water before drinking during cholera epidemic?
   ___ 1. To kill cholera germ.
   ___ 2. To make it soft.
   ___ 3. They like the taste.
   ___ 4. It is their habit.

8. Which of the following habits do you follow during the time of a cholera epidemic?
   ___ 1. I boil the water before drinking it.
   ___ 2. I add potash in the water before drinking it.
   ___ 3. I just drink the water without doing anything to it.

9. Why do some people add potash to their drinking water at the time of a cholera epidemic?
10. Why does the government or water supply company add chlorine to the water?

11. Are there some other needs of yours that you think are more important to you than the need of preventing cholera?
   ___ 1. Yes. ___ 2. No.
   If yes, what are they? (List no more than three)
   1. ____________________________
   2. ____________________________
   3. ____________________________

12. What do you think are the most important problems in your community? (List no more than three)
   1. ____________________________
   2. ____________________________
   3. ____________________________
13. The following ideas have been suggested as ways of eradicating cholera. Do you feel that they are important or not important?

1. Take cholera or TABC vaccination every year before the epidemic season.
   ___ 1. Important. ___ 2. Not important.

2. Disposal of human wastes in a proper fashion.
   ___ 1. Important. ___ 2. Not important.

3. Maintain pure water supply system.
   ___ 1. Important. ___ 2. Not important.

4. Suggest that people eat only fresh and well cooked foods.
   ___ 1. Important. ___ 2. Not important.

5. Suggest that people reduce hard-to-digest foods.
   ___ 1. Important. ___ 2. Not important.

6. Suggest that people avoid overeating.
   ___ 1. Important. ___ 2. Not important.

14. Cholera is a God-sent disease so any action taken to prevent the disease will be against the will of God.
   ___ 1. Yes. ___ 2. No.
15. Do you believe that isolation of the cholera patient might help in decreasing the spread of the disease?
   ____ 1. Yes.  ____ 2. No.

16. Do flies help in spreading cholera?
   ____ 1. Yes.  ____ 2. No.

17. Why do health workers ask the people to take cholera or TABC vaccination?

18. If a friend of yours vomits and has diarrhea several times, what would you suggest that he or his family do?

19. If your neighboring community has a cholera epidemic do you think that something can be done in order to keep the disease from coming into your community?
   ____ 1. Yes.  ____ 2. No.
   If yes, what can be done?
20. Mark the statement(s) you think is (are) true.

____ 1. Cholera is preventable.

____ 2. Cholera cannot be eradicated.

____ 3. A man has to suffer from cholera at least once in his life.

____ 4. It is a man's fate to suffer from cholera.

____ 5. It is a natural process for cholera to occur in the community once in a year or several years.

____ 6. Man can prevent cholera if he tries.

____ 7. Cholera cannot be prevented.
C. **Analysis of the Data**

The data gathered by means of the health information survey could be analyzed according to variables such as age, sex, religion, occupation, and education. The perception of threat, cause, and prevention of cholera might be dependent upon each of the variables.

There may be three broad categories of people in the rural communities of Nepal: traditional, conservative and progressive.

The people in the traditional group seem to be quite rigid in their beliefs and ways of living. Thus, it becomes difficult to change their attitudes and behavior in a scientific direction. This might be due to religious beliefs.

The people in the conservative group tend to be critical in their thinking and judgement. They seem to accept new ideas and proposed changes if they feel such ideas and changes would be appropriate to their well being. Age and education might be influencing factors in this group.

The people in the progressive group tend to accept new ideas and proposed changes readily. They seem to be highly susceptible to changes since any change, for them, is progress. Generally, young people tend to fall into this category.
Following the analysis of the data it might be possible to assign persons to one of the three groups described. The advantage of so doing would be that separate and specific health education programs could then be developed for each of the groups. The groups being different requires a different health education approach.
CHAPTER IV

SUMMARY AND CONCLUSION

Human perception extends beyond the mere experience of sight, hearing, smell, taste, and touch. Ideas, values, concepts, perception of relationships, and meanings must also be added. Man reacts to any situation according to how he perceives it. This perception is dependent upon his physiologic and psychologic needs, and also upon his socio-cultural background. It is personal and therefore different for each person.

How a person behaves in respect to the threat of disease or the promotion of health is also affected by his perception. In order to plan health education programs or activities that will affect behavior, it is necessary to take perception into consideration.

Cholera is a major health problem in developing countries such as Nepal. However, many measures that could be taken to solve the problem are not put into practice. A number of researchers suggest that lack of health action may be due to several components of perception. If such is the case, it would seem necessary to determine what components of perception are operative in a particular population group. Then an
educational program could be developed to affect a particular facet of perception.

This study represents an attempt to develop a survey instrument for determining various components of health perception in relation to cholera such as threat, cause, and prevention. The analysis of data gathered by such an instrument would be a guiding influence in the determination of health education programs.
BIBLIOGRAPHY


