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COMPREHENSIVE HEALTH ASSESSMENT OF IYEKUSELU DISTRICT,
BENDEL STATE, NIGERIA

A Dissertation
Presented for the
Doctor of Philosophy
Degree
The University of Tennessee, Knoxville

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December 1983

DEDICATION

To the beloved memory of my father,
Mr. Airhihenbuwa Obadorlagbonyi,
and my dear mother,
Mrs. Igbinosa Obadorlagbonyi.

ACKNOWLEDGEMENTS

The author extends his profound appreciation to the members of his doctoral committee: his committee chairperson, Professor Bill C. Wallace, for his unflinching support and professional guidance, members of the committee, Professor Robert H. Kirk, Professor Charles B. Hamilton, and Professor Howard R. Pollio, for their many contributions in the form of guidance and inspiration throughout the various stages of this research.

Deep gratitude to Mr. Paul Wright for his patience and diligence while serving as the author's consultant at The University of Tennessee computer center.

The author wishes to thank the interview team: Mr. Dele Alohan, Mr. Joseph Imadiyi, Mr. Lewis Osagie, Mr. Noghayin Aghedo, and Mr. Alex Idumwonyi, for their kind assistance and warm support.

Special appreciation is extended to the author's brothers, Samuel, Sunday, and Daniel for their relentless effort in furnishing him with all the information he needed from Nigeria. The author also thanks Dr. Wole Alakija of the University of Benin, Benin City, for his thoughtful contributions.

Finally, the author extends his deepest gratitude to his wife, Robie, and his two children, Lee and Iyare, for love and moral support throughout this research.

This research was supported by a grant from W.K. McClure Fellowship for the study of World Affairs, Division of International Education, The University of Tennessee, Knoxville, Tennessee.

ABSTRACT

The purpose of this study was to assess the health knowledge of heads of households, their perceived needs, and the attitudes they held toward health services in order to make recommendations and suggest a plan for new health programs for Iyekuselu District area.

Fifteen villages were randomly selected from the 107 villages in the area. There were 17 interviews per village for a total of 255. Five interviewers were trained to assist the researcher with the interviews. A questionnaire was used to conduct the interview.

The following are the major conclusions drawn from the study.

1. The heads of households in the Iyekuselu District, Bendel State, Nigeria, self report their health as good even though a low level of knowledge and understanding of disease endemic to the area exist.
2. The heads of households' attitudes toward health services provided at the medical facilities are generally negative.
3. The heads of households in Iyekuselu District, Nigeria, accept traditional healing administered by native doctors as legitimate alternative health care. However, for the illnesses considered in this study, the vast majority will consider orthodox medicine. When the native doctor is preferred, it was due to the concern for interpersonal matters.
4. The self perceived health care needs of these heads of households are disease control and improved accessibility to health care facilities at low cost.

5. The data gathered in this study appear to support the concept that a health education/promotion program is a legitimate vehicle for improving the health status of individuals living in Iyekuselu District, Bendel State, Nigeria.

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CHAPTER I

INTRODUCTION

Health professionals are continuously seeking new ways to alleviate and possibly annihilate those diseases that continue to plague the world. Whether it be chronic degenerative diseases, such as are prevalent in developed nations, or communicable and infectious diseases, such as are the leading cause of death in developing nations, health professionals have come to rejuvenate the old adage that "prevention is better than cure." Since health promotion and disease prevention are major functions of health education, the ultimate goal for this profession is the ability to reinforce positive individual behavior that will enable one to lead a more healthful and productive life. Concerned individuals and international organizations in developed countries have initiated and implemented a number of health programs in developing countries with the aim of improving the health status of the peoples in these countries. These plans have often been met with colossal failure due for the most part to ethnocentrism on the part of the international health providers. The Rockefeller anti-hookworm campaign in Ceylon was strictly a preventive program, and field personnel repeatedly were cautioned not to become involved in curative services. "Yet one reason the project failed to eradicate hookworm was that to the Ceylonese the rationale of environmental sanitation for the exclusion of their health priorities made little sense" (Forster, 1978). Hookworm to them was not a major health

problem to warrant the time and effort devoted to it. One of the numerous countries that has been on the receiving end of such programs based on misconceived notions is Nigeria.

The primary causes of death in Nigeria, as in many other developing countries, are infectious diseases such as pneumonia, diarrhea, malaria, measles, and respiratory infections (Moore, L.G.; Arsdale, P.W.V.; Glittenberg, J.; Aldrich, R.A., 1980). Individuals in these cultures should be informed to recognize the magnitude of the health problems facing them and to be educated to assume responsibility for their individual health (Richmond, 1979). To educate the people, one needs to identify those diseases that cause high morbidity and mortality in the community. It is also imperative that one identify those health hazards, such as poor environmental sanitation and sources of impure water, in the community. While these health problems may be addressed to some degree in urban areas, they are endemic in rural areas where 70 percent of the Nigerian population lives. These rural areas, mostly composed of villages, are the core of Nigerian tradition and culture. To be an effective health educator in Nigeria, one must be trained to understand and respect the cultural and traditional values of the people.

The slow extension of health education services for the contribution of development, improvement and extension of maternal neonatal care in the developing world could be attributed to their cultural inappropriateness. They generally embody values and make use of procedures emanating from industrial societies, and people do not easily accept a service that originates in a different culture, especially when the people administering and providing it are often of different origin, trained in ways of thinking alien to the local people, and sometimes even unable to use the local language. In contrast, remarkable progress has frequently been achieved by

missionaries and health workers who live continuously in an area, visit people in their homes, use the local language, simplify the health programmes and adapt them to local conditions (though this may be mainly to reduce costs), and respect local beliefs and traditions. As confidence in such workers grows, increasing numbers of people are prepared to make changes in their thinking and living patterns (Scotney, 1981).

The extended family structure in rural Nigeria is of vital importance for understanding the health problems of these people. The physiological and psychological dependence that exists in extended families in Nigeria (especially in rural areas) is both a cultural and traditional reality which must not be overlooked in addressing their health needs (Lambo, 1961). Addressing the health problems of rural Nigeria will involve an initial focus on families, realizing that these are the proper subunits of a community or village.

I. PURPOSE OF THE STUDY

The purpose of the study was to assess the health knowledge of heads of households, their perceived needs, and the attitudes they held toward health services in order to make recommendations and suggest a plan for new health programs in Iyekuselu District area.

II. STATEMENT OF THE PROBLEM

There is limited information available on the levels of health knowledge, needs, and attitude of heads of households in rural Nigeria as well as other developing countries. To address this problem, the following research questions were posed:

1. What is the level of health knowledge of the heads of

households in Iyekuselu District area regarding the diseases that are endemic in the villages?

2. What is their attitude toward medical facilities?
3. To what degree do they subscribe to traditional healing?
4. What are their attitudes toward the native doctors?
5. What are their perceived health needs?
6. What improvements can be recommended for Iyekuselu District area?

III. NEED OF THE STUDY

Among the numerous possible solutions to addressing the health problems of developing nations are the exploration of untapped resources and the utilization of available community services. Due to the nontechnical nature of these nations, especially in rural areas, appropriate health care does not necessarily mean delivery of health care in the hospital or funding of health related research. Educational activities aimed at the dissemination of information about health and nutrition, the spread of disease and its consequences, the responsibility of a patient towards the general community and his own milieu, family health, and family planning are the basis of a community health program for rural developing countries (Gunawan, 1975).

Looking at health problems endemic to the developed world, we find that the leading causes of death are heart disease, cancer, and stroke. In developing countries, such as Nigeria, they are enteritis, diarrhea, pneumonia, and respiratory diseases (Schimo, 1976).

Communicable and infectious diseases such as diarrheal diseases, acute respiratory infections, and tuberculosis are the leading cause of death in Africa, Asia, and Latin American countries (Zahra, 1980). For example, the three most noticeable communicable diseases in Nigeria in 1972 were pneumonia, malaria, and tuberculosis (Caldwell, 1977). These infectious diseases in developing countries are inexpensive to control when compared to the chronic degenerative diseases that are prevalent in developed nations. In those rural areas where health facilities exist, consideration (or lack of consideration) for the needs of the intended health care recipients has contributed to underutilization of such services (Miskiewicz, 1976). Health problems in Nigeria are mainly related to environmental sanitation and potable water supply. The World Health Organization (WHO) has suggested that if the environment were improved 50 percent, the world's health would be improved 75 percent.

It is now generally agreed that the marked fall in mortality in the Western nations during the nineteenth century was caused chiefly by improvements in sanitation, nutrition, and living conditions, not improved medical care (Miller, 1976).

IV. ASSUMPTIONS

In undertaking this study, it was assumed that:

1. The responses to all items in the survey instrument will be true and correct.
2. Either of the spouses in each household will respond the same to each item on the instrument.

V. DELIMITATIONS

This study was delimited to the Iyekuselu District area. It was delimited to either the husband or wife or some other adult in each household.

VI. LIMITATIONS OF THE STUDY

The major limitation is:

1. It was not possible to devise an instrument that will have the same meaning for everyone. Since responses will be given in Edo language and the interviewer will record in English, there is room for variation in interpretations.

VII. DEFINITIONS OF TERMS

Babalawo. A Yoruba name for a traditional healer concerned with curing mental illness.

Edo Language. The language of the Edo people, the majority tribe in Bendel State, Nigeria.

Health. The degree to which one is able to adapt to his/her environment.

Health Assessment. The determination of the subjects' health knowledge, perceived needs, and attitude towards health care delivery.

Health Attitude. The object of one's feelings towards available and/or unavailable health services.

Health Knowledge. One's understanding of the causes and/or

signs and symptoms of diseases of high morbidity and mortality in the community.

Health Needs. Actions in the form of program or services tailored towards the reduction of disease occurrence or reduction in susceptibility to a disease.

Health Superintendent. Persons who are specially trained to carry out sanitary inspections. They have the power to give citations for violation or abuse of the environment.

Household. All people living together, either related by blood, marriage or kinship, in the same house.

Traditional Healer. A person who practices medicine with herbs and roots without western education in medicine.

CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter is divided into seven sections. The first section will address health status measurement in terms of conditions faced by a sample population. The second will concern health system measurement, focusing on availability of services. The third section will review the benefits of traditional medicine, while the fourth section will deal with needs and attitudes of the people. The fifth, sixth, and seventh sections will justify the need for this research methodology by citing previous similar works in other developing countries.

I. HEALTH STATUS MEASUREMENT

In spite of the importance of health to the welfare of the individual and to the socio-economic development of a nation, Nigerian health services, in all its various facets, has remained inadequate, relative to demand from a rapidly growing population.

Nigeria has an average per capita income of \$600 and an infant mortality rate of 157/1,000 births. Only 2 percent of the 1982-1983 fiscal year budget was allocated to health care. Health problems are even more crucial for those in the villages where the average family income is barely enough to meet daily needs.

Health consequences of undernutrition are particularly severe in infants and young children. The inter-American Study of Patterns of Childhood Mortality indicated that nutritional deficiency was the most

serious health problem (as measured by its involvement in mortality) uncovered in the investigation. In fact, 57 percent of the children who died under five years of age were found to have had immaturity or nutritional deficiency as either the underlying, or an associated, cause of death. In many countries, this underlying cause is frequently not mentioned in death certificates; consequently, the importance of undernutrition as a cause of infant and young child mortality is often not realized (WHO, 1980).

Possibilities for increased human exposure to animal parasites occur whenever wild or domestic animal species or breeds are brought into the proximity of man or when man wanders into a natural focus of infection. As human populations expand and efforts to improve their conditions of life continue, man can be expected to turn to account hitherto unexploited territories and natural resources. Harnessing the power of rivers, constructing roads and pipelines through virgin or thinly populated areas, and clearing or irrigating and cultivating new lands will cause the human species continually to enter unaccustomed ecosystems in which there are potential human pathogens from part of the biotic community (WHO, 1980).

There are parasites, like Zoonoses, which have reservoirs of infection in domestic animals and thus impose a particular serious burden of ill health on vast numbers of people who live in rural areas and who earn their livelihood through animal farming and/or other forms of agriculture. Close association of people with their animals occurs through contact in large areas and often under unsatisfactory sanitary conditions. Parasitic Zoonoses, for example, are particularly

prevalent in rural populations of tropical and subtropical countries. Especially among the children in such areas, this parasite exacts a double price by exacerbating the vicious circle of protein-energy malnutrition and infection. Not only do such parasites produce debilitating febrile or anorectic illnesses in infants; they markedly reduce local sources of already scarce animal protein by affecting food producing animals as well (WHO Technical Report Series, No. 637, 1979).

A recent study compiled by the United States National Academy of Sciences directed attention to the dual significance of many Zoonoses. Other serious losses of high-quality protein occur through the rejection of meat, fish, and other animal products because they are known to be commonly infected with harmful parasites like Zoonoses.

II. HEALTH SYSTEMS MEASUREMENT

A review of health planning in the Nigeria development process so far suggests that the major problems lie more in effective implementation of existing programs than in the formulation of new ones. It was generally agreed that the programs of the Third National Development Plan (1975-1980) were comprehensive enough to provide a solid foundation for effective health care delivery. The main objectives of this policy was to improve and consolidate existing health facilities and build new ones to correct the maldistribution of facilities, and to increase the supply of health manpower. Both the Second and Third National Development Plans rightly accorded priority to preventive as distinct from curative services (Fourth Plan, 1981).

Available data reveal that in 1977 there were 7,552 registered

medical practitioners in Nigeria, of which 5,470, or about 80 percent, were Nigerians. The corresponding figures in 1975, the beginning of the Third National Development Plan period, were 4,248, 3,039, and 72 percent, respectively. It is significant to note that the output of doctors from all sources which stood at 300 per annum had by 1978-1979 academic year doubled to about 600 per annum. Also, in 1975, there were 168 dental surgeons, but in 1977 the number increased to 277. Similarly the number of pharmacists increased from 1,482 in 1975 to 2,540 in 1977, while the figures for nurses/midwives was 34,000 in 1977. The shortage of junior and intermediate level health personnel, which was acute in 1975, has also shown signs of improvement although accurate statistics in this area are not readily available. Despite such notable gains, the gap between the supply and the demand for various categories of health manpower remains large, and greater effort will be required to narrow it in the shortest possible time (Fourth National Development Plan, 1981).

In 1980, the teaching hospitals in Nigeria graduated 1,000 medical doctors and dentists, while the number of first-year clinical students rose to 1,200 (Shargari, 1981).

In 1975, there were 6,628 health care institutions of various grades in the country with a total bed complement of 54,174, giving a bed/population ratio of 1 bed per 1,380 people. By 1977, some improvement had been recorded and the corresponding figures rose to 7,163 health care institutions with 57,944 beds and a ratio of 1 bed to 1,200 people. In addition to the problem of low ratio of bed to population, the distribution of these institutions between urban and rural areas

revealed imbalances in terms of accessibility. It was estimated that at the beginning of the current plan period, 1981-1985, the health coverage of the population in relation to easy accessibility of care was about 25 percent, with concentration in the urban population (Fourth National Development Plan, 1981).

Associated with the problem of health care facilities is the shortage of drugs in Nigerian health establishments. This shortage is a great hindrance to effective health care delivery. At present, about 90 percent of the drugs used in Nigerian health institutions are imported from foreign countries. Not only does this constitute a major drain on the country's economy, it also facilitates the importation of drugs whose quality cannot be guaranteed (Fourth Plan, 1981).

Preventive health service is of primary importance in the overall health program of the country. Most diseases that account for high rates of mortality and morbidity respond effectively to preventive health services. Similarly, sound environmental measures are of prime importance since most infectious diseases in the community have a direct correlation with poor and insanitary environment (Fourth Plan, 1981). In many towns and cities, ecological conditions pose serious dangers to health. There are inadequate provisions for good water supply, effective drainage and waste disposal, and housing. Only a very small percentage of the urban population enjoys regular refuse collection service, while there are no sound waste disposal systems in rural areas. Part of the difficulties hampering the development of preventive services involve conducting the activities of responsible agencies operating in various sectors of the program.

At present, very few private medical clinics and hospitals operate on acceptable standards. Many clinics are housed in one-room apartments with hardly any sitting facilities for patients. A substantial number of private hospitals are also quite substandard in terms of equipment and personnel. These hospitals are mostly solo practice, ill-organized, and ill-equipped. Despite these disadvantages, the heavy demand for these services has kept them in business. They, therefore, have little or no incentive to improve either the quality of their services or the structure of their facilities. Private hospitals, however, constitute a small percentage of the Nigerian health care delivery system. For example, out of 54,174 hospital beds estimated to be in the country in 1975, 5,617 (about 11 percent) belonged to private hospitals. Although some legal regulatory provisions had existed in the past, these were not strictly enforced. It is in this context that the provisions of the promulgated "Regulated and Other Professions (miscellaneous provisions) Degrees" of 1978 were seen as a step in the right direction (Fourth Plan, 1981).

A major problem facing health care delivery in Nigeria has been the difficulty of making adequate funds available for running existing hospitals. Such funds are normally used to purchase drugs, maintain and replace equipment, and to provide other materials and human contributions to ensure reliable and quality health delivery. The tendency has been to rely mostly on government subvention for the purpose of financing the delivery of subsidized health services to the general public. The amount of subsidy given had in the past fluctuated necessarily in line with the financial fortunes of government, with the

effect of rendering services in Nigerian hospitals rather unreliable (Fourth Plan, 1978).

There are some forms of payment structure for health services delivered that are mainly a model for workers and their family. The workers (both public and private) do enjoy some form of health insurance coverage. Nigerian health care is in a transitional state as a result of political, social, and economic evolution. The central control of the health care delivery system rests with the Federal Ministry of Health with some responsibilities delegated to state ministries. The absence of physicians (and hospitals) in most rural areas of Nigeria, as in other developing nations, does not necessarily doom the nation's health care system.

III. TRADITIONAL MEDICINE

Traditional healers have always played a significant role in the Nigerian health care delivery system. It is important to emphasize the usefulness of traditional healers who are not only respected for their indigenous practices but also hold the confidence of villagers. These healers, with a little modification and perhaps more official recognition, are in a position to help achieve the highly needed effective and efficient health care delivery system in Nigeria.

Treatment of mental illness has been one of the oldest healing modalities in Western Nigeria. When it first started, there were few people in the profession and 99 percent of them were 40 years and older. Since there was no written record of the origin, it was inherently transmitted from one generation to another (Tella, 1968).

The training of Babalawos became a very strenuous exercise until a new system of admitting children from 8 years to 12 years was devised. With this, they can learn for as long as 20 years to become a practicing healer. The training of the Nigerian Babalawo is a supreme example of sacrifice in human endeavor. It shows the human memory can be stretched to almost limitless extent for the retention of knowledge (Asuni, 1963).

Most of what has been written on the Babalawos and their treatment of disease can at best be called impressionistic. Western psychiatrists, having been trained in western style medical school and psychoanalytic methods, find fault with anybody who practices medicine without the appropriate initials (M.D.) after his/her name. These psychiatrists, thus clouded by their training and armed with prefabricated hypothesis, make various mistakes in attempting to understand Babalawo medicine (Dobb, 1965).

The most baffling aspect of the Babalawos' treatment is their successful treatment of mental illness. While some writers have attributed this success to what they call "suggestive therapy," others limit their success to certain psychoneurotic conditions that have cultural overtones (Abimbola, 1971). In preparing medicine, roots and herbs mixed with other ingredients are used in making potions. Before the western scientific world discovered tranquilizers, Rauwolfia Serpentine or "Snake Roots" had been used for generations in India. Centuries before 1949, when its use as a treatment was recorded, Babalawos had used it in treating psychotic patients. Unruly and

self-destructive patients were administered a high dosage which in most cases puts the individual to sleep.

Recent research on Nigerian plants showed that many of the roots and fruits contained alkaloids. Erythrophleum Guineense was identified from the bark of the sasswood tree (Prince, 1960). It has powerful emetic laxative substances. For years traditional doctors have claimed to heal diabetes mellitus--sugar diabetes. These claims had not attracted any serious research interest until Tella (1966) experimented with the herbs used by the Babalawos. The herb ornamental Periwinkle Vinca Rosea on analysis was found to contain insulin (Forster, 1963).

As strange as it may sound, extracts from the giant African Snail Achantia were used in the treatment of high blood pressure by the traditional healers. Extracts from the cooked animal (snail) showed moderate sedative action when tested on mice.

Professor Lambo (1961), the African psychiatrist, stated that the traditional healers were successful in treating most neurotic and psychotic patients. Below are certain factors contributing to the success of traditional treatment of mental illness:

a. Only the very popular Babalawos were able to maintain a hospital, either accommodating patients in their own home or in small structures in their compound.

The majority of Babalawos move in with their patients for the duration of treatment. Treatment is thus confined to the environment familiar to the patients, a very notable devise if one remembers the patrilineal structure of Western Nigerians.

b. The patient is often free to go and come as he wishes. A self-destructive patient may be sedated with Rauwolfia extracts.

c. The Babalawo's unique position in the society also enhances his success. He is familiar with all the tenants of the culture and occupies one of the most important positions. The traditional healer is the only one who can offer sacrifices to the spirits.

d. The Babalawo is often a very wise person; a fact augmented by his close proximity to his patients, his arduous training,

and good knowledge of cultural norms. An example of the Babalawos' ingenuity can be seen in their treatment of enuresis. A toad is tied to the penis of the bed wetter. If the child urinates, the heat from the urine wakes up the toad who then begins to croak. The croaking of the toad wakes up the child. The similarity of this device to the modern enuretic machine is evident. The modern enuretic machine delivers a shock to the bed wetter on urinating. Behaviorally speaking, the electric shock and the croaking of the toad function as negative reinforcers.

With the coming of Europeans also came European institutions. Asylums were no exception. An asylum existed in Nigeria in 1907. It was on the outskirts of the city and treatment was in the hands of an "alienist," a person in charge of individuals isolated from society (Adegoke, 1968). The hospital was later staffed by qualified psychiatrists and treatment was psychoanalytical in orientation. This form of treatment has not been suitable in an African setting. The patient feels no need to do any extensive "introspection" and soul searching. This form of treatment is completely alien to traditional organizations, and diagnosis is unreliable since it is often conducted according to western standards. The apparent limitation of psychiatric explanations and treatments in this environment has led to new orientations and inventions.

According to Lambo (1961), over 60 percent of the patient population of a large General Hospital in Western Nigeria received "native treatment" in one form or another during the time they were being treated in the hospital. In psychiatry the percentage is much higher. This and other observations would seem to show that Western Nigerian culture has not yet accepted western methods of treatment in their present forms and that Nigerian people seek medical help with a certain degree of ambivalence.

Another example of traditional healing power is the Malaysian Bomoh, who still uses incantations, dances, and burnt offerings when dealing with evil spirits. At first, this may seem alien to western medicine. Westerners who have seen the Bomohs in action, however, admit that their theatrical demonstration are not far removed from what in the west is called group-therapy. The Bomoh also has an extensive pharmacopeia at his disposal: antiseptic agents are distilled from betal nut, which is also prescribed for parasitic worms; mangrove sap is used as an antiseptic; tea oil is used in treating skin eruptions caused by poisonous plants (Canadian Medical Association Journal, 1979).

Throughout the world the range of traditional medicine is vast, and its subtleties are often intricately woven into the cultural, religious, and social precepts of the people. These traditions cannot be ignored.

IV. ATTITUDE AND NEEDS

According to Benjamin Paul (1955), in his classic text, Health, Culture, and Community:

. . . An important aid to understanding the community and its reactions to a medical problem or health program is the concept of culture with its accent on pattern and function as well as on specific items of belief and practice. The threads of health and illness are woven into the sociocultural fabric and assume full significance only when perceived as part of the total design.

The Western Nigerians believe that if a man is in trouble or if he wants to undertake any project, the gods must be aware of his problems so that he may earn their blessings.

Intervention for the purpose of eliminating or preventing illness and disease in developing countries requires changing people's lives. Planning for these changes and the introduction of them in many cases requires the utilization of psychological and cultural knowledge in order to direct people towards goals they do not necessarily desire (Porter, 1979).

Since a community's conception of health is integrally related to its culture, simple definitions of health throughout the world do not exist. Culture defines disease, well-being, and what constitutes a variation in each case.

The complexes of symptoms recognized as diseases within western medicine, with biological or theoretical psychological causes, persist in varying degrees throughout the world. However, they do not exist as those same distinct units conceptualized by modern medicine (Porter, 1979).

The range of systems of medicine found in Nigeria is very broad and of importance is the value system in the concept of unity of life and time.

According to Porter (1979), African concepts of health and illness, like those of life and death, are intertwined. Most Nigerian cultures share the idea that the strength of its deceased heroes are omnipotent and indestructible, and their importance is comparable to that of Catholic saints. Health is not regarded as an isolated phenomenon but reflects the integration within a community. It is not mere absence of disease but a sign that a person is living in peace and harmony with his neighbors, that he is keeping the laws of the gods and of the tribe. The practice of medicine is more than the administration

of drugs and potions. It encompasses all activities--personal and communal--that are directed toward the promotion of human well-being. Acknowledged diviners and healers are able to discover the nature of illnesses. The explanations always involve a deity or an ancestral spirit. Horton (1967) explains:

The diviner who diagnoses the intervention of a spiritual agency is also expected to give some acceptable account of what moved the agency in question to intervene. And this account very commonly involves reference to some event in the world of visible, tangible happenings. Thus if a diviner diagnoses the action of a witchcraft influence on lethal medicine spirits, it is usual for him to add something about the human hatreds, jealousies, and misdeeds that have brought such agencies into play. Or, if he diagnoses the wrath of an ancestor, it is usual for him to point to the human breach of kinship morality which has called down this wrath.

The traditional healers or native doctors, as they are commonly called in Nigeria, show unusual sensitivity to psychological needs. Their emphasis in understanding illness is not on how it occurred, but rather why it happened--an emphasis often lacking in western medicine.

The need for health education in rural Nigeria is evidenced by the realization that the major health problems in rural as well as in urban areas are communicable and/or education oriented. It has been suggested, for example, that economic, political, and education problems are key factors in malnutrition.

Satisfactory results can be achieved by explaining that the piece of meat traditionally set aside for the working father should be given to the growing child, while the piece of sugar reserved for the child should go to the father (Dorozynski, 1975).

Those traditional practices which do not carry any cultural overtone but which have gained ground because of unchanged values over time

could be altered given a rational justification for such a change. In this case, the family no doubt would appreciate any value change that would enforce the child's physical capacity through additional protein from the meat.

Ignorance of infant feeding is one of the main causes of malnutrition in Africa. The mothers believe that a malnourished child is either "bewitched" or displaying the "anger of the ancestors" and they do not realize what they can do to improve a child's condition (Vincent, Kekana, 1977).

V. RELATED LITERATURE BY METHODOLOGY

A number of household surveys have been conducted utilizing a methodology similar to the one used in the present study. Carlton (1973), did a household survey of adults' knowledge of, needs for, attitudes towards, and utilization of health and medical resources in two southeastern Kentucky counties. One of the significant findings of this research was that the subjects:

. . . perceived sickness to be an inherent part of their life-style, and they were unhappy and pessimistic about the state of their health. However, it was also found that the people did not take proper preventive measures to protect their health although they believed such measures were important.

Findings also revealed that:

. . . the population's knowledge of disease and disease symptoms was quite low, and physicians, clinics, and hospitals did not provide the health information they needed to improve this knowledge. The population did not hold the physicians in high esteem, and the people were dissatisfied with many aspects of the system that provided sick-care to them. Insufficient money was

perceived as a barrier that confronted many people who sought care in the sample population, and the lack of money influenced the decisions of many not to seek care when perhaps they should have.

There were several recommendations in the study including maintaining a more effective line of communication between physicians and health committees, mass media health education campaign, training of hospital personnel to meet patient needs, to mention but three.

Folawiyo (1975) did a household survey of health knowledge, needs, and attitudes related to the utilization of medical facilities on five sea islands of Charleston County, South Carolina. The findings in this study included a 45 percent nonuse of medical facilities and concern about the high costs for medical treatment and care. Findings also revealed that over 20 percent of the population received medical care from health providers other than physicians; over 36 percent of the sample never heard of or saw any program related to health on radio or television. Findings from this study led to recommendations that a health education committee should be formed "to advise, plan and implement programs for patients, employees, and community groups" and mass media should be used as a means of educating people about health.

White and Murnaghan (1969) conducted a feasibility study concerning international comparisons of medical care utilization among three countries. The household survey, which was done in the United Kingdom, Yugoslavia, and the United States, focused on need for medical care, attitudes and expectations about medical care, demand for medical care, and utilization of medical care.

Findings revealed that in spite of substantial differences in ways of life, in organization of health services, and in reported morbidity and disability, sample populations in all three countries appeared to consult doctors in very similar manners. "The possibility exists that there is some kind of propensity for consulting a doctor or a nurse for curative services. This propensity seems unrelated to the number of doctors available to the population."

On the basis of this study, the Committee for the International Collaborative Study of Medical Care Utilization has concluded that epidemiologic methods employing household interviews are feasible for undertaking international and regional studies of medical care utilization. The internal consistency of the rates observed with respect to both similarities and differences is reassuring; most of the standard errors are acceptable. Validation studies indicate that the methods are responsive to the problem.

The final conclusion to this study placed the main emphasis on utilization with subsidiary interest on demands, attitudes, and satisfaction.

Marquis, Cannell, and Laurent (1972) did a national survey to report health events in households. The study was designed to test the effects of interviewer reinforcement, length of questions, reinterviews, and respondent education on the validity, reliability, and quantity of respondent reports of health information in a household interview.

The results obtained were not as anticipated initially. They indicated that the effects of different ways of conducting interviews were mediated by the level of education of the respondent. Procedures which increased accuracy and reduced bias for one education group had

opposite effects for the other education group. It appears that small variations in either the asking of questions or reinforcement procedures can produce variations in the quality of data.

Appropriate use of reinforcement, probes, and other feedback by the interviewer can aid recall and reporting accuracy a great deal for the less educated respondents. On the other hand, more educated respondents carry out the reporting task according to their understanding without relying on cues from the interviewer. "The more educated person had a tendency to underreport chronic conditions, possibly due to a stronger conservatism or social desirability bias."

These highly speculative hypotheses are offered as a guide to further research on survey interview reporting accuracy. Human characteristics involving memory, recall, cognition, social status, and interpersonal interaction are often overlooked in methodological studies, yet appear to be very crucial in any meaningful understanding of the personal interview process.

VI. RURAL HEALTH IN THE VILLAGES

There has been remarkable effort, by health planners and health educators, to initiate health programs in the rural areas of developing countries utilizing village and community workers. In the department of Maradi, Niger, a primary health care delivery system has been growing since 1966 with the joint support of the Ministries of Health and Education. Health services are extended by training village first-aid workers. These volunteers are provided with a village pharmacy containing simple and safe medicines to treat the region's most common illnesses. They attend 10-day refresher courses each year at the nearest health center, as do the village midwives (CMA Journal, 1979).

In Pakistan, the province of Punjab has been training medical assistants. Baluchistan has been training health auxiliaries and in the northern area (under federal administration) there are already 1,600 trained health guards. These do as their name implies; they look out for infectious diseases, malnutrition, and signs of other impending health problems in outlying districts (CMA Journal, 1979).

In the district of Yako, in upper Volta, malnutrition, resulting from drought-caused food shortage, led the health service to open nutrition recovery centers. Under the guidance of auxiliary personnel, mothers were shown how to restore their children to health with a gruel made from locally available foods (millet and palm oil). Mothers stayed at the center for about three weeks and once they become experienced, instructed new arrivals. They then carried their new knowledge back to their villages (CMA Journal, 1979).

VII. SUMMARY

Socio-political and economic conditions are known contributors to the debilitating health status of the people in rural Nigeria. Not enough attention is paid to the health problems by the Nigerian government. This is evident in the percent allocation of health care in the annual budget. The traditional healers have contributed tremendously towards improving the Nigerian health care system. An understanding of the various perceptions among cultures of what is disease and what is health is too important to overlook in discussing inter-culture health care.

CHAPTER III

METHODOLOGY

In this chapter, the method used in conducting the research is discussed. First, the selection of instrument and the determination of sample is presented. Secondly, the selection of the population sample and the manner in which the instrument was administered is discussed. Finally, the collection of data and how it was analyzed are outlined.

I. SELECTION OF INSTRUMENT

A modification of the instrument used by Bill Carlton in his 1973 Kentucky study was used in this study. The instrument was originally developed by the National Opinion Research Center, Chicago, Illinois, and was used in two national surveys in 1955 and 1959. The

New York Hospital-Cornell Project 1960-1965 also used portions of the instrument. The National Opinion Research Center (NORC) and the

New York Hospital-Cornell Project reported that the questionnaire evokes responses in four areas of health care: (1) the utilization of services and facilities; (2) attitudes and opinions toward health and medical care; (3) health knowledge; and (4) health needs. In this study, the final questionnaire evoked responses in three areas: (1) attitudes toward health services; (2) health knowledge; and (3) health needs. Those items that evoked responses on the utilization of services and facilities were eliminated from the final instrument in this study since the utilization of services was not a part of this study.

Carlton reported in his study the conversation he had with Mr. Patrick Bova, Librarian, NORC, on July 12, 1972, in which Mr. Bova "pointed out that the reliability and validity of the survey instrument were not established." "Mr. Bova stated that area probability sampling procedures were used to collect data from a very large sample in the United States in the NORC surveys of 1955 and 1959." "During the conversation, Mr. Bova also stated that it was a common practice for researchers to use NORC survey forms to complete local surveys." Carlton, in a telephone conversation, gave the researcher permission to use the instrument and make necessary modifications. Upon reviewing the instrument and making the necessary modifications, the final instrument consisted of 43 of the 81 items in the original instrument. In the final instrument, 7 items were added, 43 were eliminated, and 2 were modified.

II. SAMPLING

Attempting to draw a sample from a population where current population figures are practically nonexistent is one of the most difficult tasks a researcher could encounter. While the Ministry of Land and Survey, Benin City, furnished the researcher with the names of the 107 villages in the target population (Iyekuselu District area), they did not have any data on the number of houses or households in each village. The average number of houses in the villages, based on available data from the villages, was about 40. Using 107 villages and an average of 40 houses in each village, a total of 4,280 houses (with

each house representing a household unit) was estimated as the population size.

An acceptable sample size, n , was determined by using Morgan and Krejcie's small sample size for Research Activities Technique (1970).

$$S = \frac{\chi^2_{NP} (1 - P)}{d^2 (N - 1) + \chi^2_P (1 - P)}$$

S = required sample size

χ^2 = the table value of Chi Square for 1 degree of freedom at the desired confidence level (2.706 or 2.7)

N = the population size

P = the population proportion which is desired to estimate (.50 will give minimum sample size)

d = the degree of accuracy expressed as proportion (.50 with confidence interval of 90 percent)

Therefore,

$$S = \frac{2.7(4,280) (.5) (.5)}{(.05)^2 (4,279) + 2.7 (.5) (.5)}$$

$$S = \frac{4108.8}{11.6575}$$

$$S = 254$$

With a 90 percent confidence interval, a minimum sample, n , was 254 for the population N of 4,280. Fifteen villages (which represent 14 percent of the total number of villages in the target population) were selected from the list of 107 villages using a table of random numbers. Fourteen (14) percent is an acceptable standard for sample representation in behavioral research. Seventeen heads of households

in 17 different houses were interviewed in each village. The head of household was either the husband or the wife, but when they were both present, the husband was interviewed. The total number of households interviewed was 255.

III. DATA COLLECTION

The researcher and five trained interviewers in health related professions conducted the interview. All interviewers were volunteers and of the Edo tribe with adequate fluency in speaking the Edo language. They were given instruction in survey methods before they visited the households in their assigned villages. Meetings were held where the interviewers were introduced to the art of conducting a survey. They were taught how to listen and how to record responses to the questionnaire.

The researcher had the instrument translated into Edo language to mitigate the chance of the interviewers translating items with different meaning. Each interviewer was given a copy of the Edo version of the instrument from which they read out items to the subjects during an interview. The subjects responded in Edo language and the interviewer recorded their responses in the corresponding space provided in the English version of the instrument. On the open-ended items in the questionnaire, the interviewers recorded the subjects' response on a separate paper in Edo language. The researcher translated those responses into English on the original instrument to ensure consistency in interpretation.

Before the survey began, each questionnaire was numbered and the

completed questionnaires on each village were kept separately from the other villages. The trained interviewers and the researcher went as a team to each of the 15 villages to interview 17 household heads per village. Upon arrival at a given village, the interviewers started on one end of the village with the first house, and every other house, leaving a house in between until 17 household heads were interviewed. When the interviewers ran out of houses before completing 17 interviews, they went back to the starting point of the interview and began with the second house and every other house from there on. Whenever a household head refused to participate in the survey, the interviewer went to the next house and continued the same interval from there on. For villages that had over 40 houses, the interval between the houses interviewed and not interviewed was contingent on the number of houses in the village. In all cases there were only 17 interviews per village.

The researcher, whose native language is Edo, carefully monitored the data collection to mitigate the possibility of error.

IV. STATISTICAL DESIGN

Before data collection started, the instrument was precoded at The University of Tennessee, Knoxville, computer center. This was done to expedite the data analysis during the key punching of the completed questionnaires.

Once the completed questionnaires were received, data were analyzed using various statistical computer programs in The University of Tennessee, Knoxville, computer center. Percentages and frequency

distributions were calculated to determine the distribution of responses on "multiple choice" and "yes or no" type items.

Demographic questions were cross tabulated with questions on health knowledge, attitudes, and needs to determine if there were differences between the villages. Appropriate chi square tests were run with two-way tables to determine if significant differences existed. The villages were collapsed into four groups and Chi-square tests were run to determine if significant differences existed among the groups of villages.

CHAPTER IV

ANALYSIS AND DISCUSSION OF DATA

This chapter deals with the analysis of the responses of subjects in the 15 villages involved in the study sample. The 15 villages sampled in the study were Ugbokuli, Ekiadolor, Ekoabetu, Iyowa, Ekoshodin, Isiohor, Oluku, Ovbiogie, Evboneka, Uwan, Obarenren, Osasimwinobo, Iguadolor, Iguioshodin, and Okokhuo. Seventeen heads of household were interviewed in each of the villages. Almost all heads of households were farmers, living on subsistence farming. There was a shortage of food production during the study due to the previous year's drought which resulted in the destruction of crops.

A total of 255 interviews were completed and the following tables report the distribution of sample by demography as well as the percentage of response to items on the instrument. The distribution of sample by gender is shown in Table 1 with 62 percent male and 38 percent female. When the man of the house was not available for the interview, the wife was interviewed in his place.

Table 2 reports the age range of the participants. It was interesting to note that 31.4 percent of the sample was 65 years and older. Over 50 percent of the sample was 45 years and older. Many young adults have left the villages for the cities with the hope of making a better living from the spillage of the so called "oil boom."

The marital status of the population is presented in Table 3. Eighty-nine point four (89.4) percent were married. The reader should

keep in mind that the sample population is in a culture where polygamy is widely practiced. This means that some of those reported as married are polygamists who may have lost or divorced one of their wives.

TABLE 1
HEADS OF HOUSEHOLD BY GENDER

Gender	Number	Percentage
Male	157	61.6
Female	<u>98</u>	38.4
	255	

TABLE 2
HEADS OF HOUSEHOLD BY AGE

Age	Number	Percentage
15-24	21	8.2
25-34	21	8.2
35-44	52	20.4
45-54	40	15.7
55-64	40	15.7
65 and older	<u>80</u>	31.4
	254	

TABLE 3
HEADS OF HOUSEHOLD BY MARITAL STATUS

Status	Number	Percentage
Married	228	89.4
Single	18	7.1
Divorced	1	0.4
Widowed	<u>8</u>	3.1
	255	

Table 4 shows the percentage and number of children in the study sample under and over 18 years of age. It is not unusual to have a family with as many as 20 or more children because of polygamy and also because of the extended family structure in this culture.

TABLE 4
STUDY SAMPLE BY CHILDREN UNDER AND OVER 18 YEARS OF AGE

Age	Under 18		Over 18	
	Number	Percentage	Number	Percentage
0-2	77	30.2	90	35.3
3-6	126	49.4	126	49.4
7-12	43	16.9	35	13.7
13 and over	<u>9</u>	3.5	<u>4</u>	1.6
	255		255	

Table 5 presents responses from subjects who have had or had at the time of the interview specific illnesses. Tuberculosis and tetanus had a low percentage with 23.6 percent and 30.6 percent, respectively. Because of the high morbidity rate of the two illnesses, these diseases were associated with evil and these two questions were reacted to by most subjects with a "God forbid" type of response. Malaria and sinus trouble had the highest morbidity with 75 percent each. Dysentery closely followed with 73.8 percent, while yellow fever was 71.4 percent. Diarrhea and measles were 60.4 percent, parasites and worms 58 percent, and pneumonia had the least morbidity with 47.8 percent.

TABLE 5
PAST AND PRESENT ILLNESSES REPORTED IN STUDY

Illnesses	Has Now	Has Had But Not Now	Total
Yellow fever	10.2%	61.2%	71.4%
Sinus trouble (stiffness with pain in face)	12.2%	62.4%	74.6%
Tuberculosis	2.4%	21.2%	23.6%
Diarrhea	2.4%	58.0%	60.4%
Tetanus	4.3%	26.3%	30.6%
Malaria	8.2%	66.7%	74.9%
Dysentery	6.3%	67.5%	73.8%
Pneumonia	2.7%	45.1%	47.8%
Measles	1.6%	58.8%	60.4%
Parasites and worms	3.5%	54.5%	58.0%

Table 6 presents subject responses to various conditions. Bad headaches with 60.6 percent incidence was the most frequently reported condition. Eye trouble and bad teeth were 36.6 percent and 34.6 percent, respectively. Backache was 32.7 percent, while having trouble sleeping was 30.7 percent. The least reported frequency was blood in urine with 2.8 percent, the total number of reported incidence was further broken down into the size age groups in percentage of response. The age group 65 years and older reported more frequently than any other age group in all conditions but chest pain.

In reviewing the table, the age group 65 years and older has a higher percentage of reported incidence of these conditions than any other age group. At the same time, the 15-24 year old age group has a low percentage of reported incidence than other age groups in most of the conditions. The difference in percentages of the age groups could be attributed to the difference in the number of subjects, and ultimately in the size of the six age groups. There were more subjects in the 65 year and older age group, while fewer subjects in the 15-24 age group.

Table 7 shows whether or not respondents were satisfied with their present state of health: 63 percent were satisfied with their health, 30 percent were not satisfied, and 7 percent reported that they did not know if they are satisfied or not.

Table 8 shows how respondents rated their health, that of their spouse and children. In each of the three categories respondents most frequently rated their health as good. Twenty-seven point five (27.5) percent of respondents rated their health as excellent, 33.7 percent

TABLE 6

CONDITIONS OF HEADS OF HOUSEHOLD BY AGE

Conditions	Those Who Said Yes	Those Who Said Yes For Each Condition By Age Group					65 and Older
		15-24	25-34	35-44	45-54	55-64	
Do you have trouble with your eyes?	36.6%	1.2%	2.4%	7.5%	5.5%	7.9%	12.2%
Do you have trouble with your hearing?	13.0%	0.8%	0.8%	3.5%	2.4%	2.0%	3.5%
Do you have any bad teeth?	34.6%	0.8%	2.0%	7.1%	5.1%	7.1%	12.6%
Do you often have bad headaches?	60.6%	5.5%	5.9%	13.0%	10.6%	10.2%	15.4%
In the last year, have you coughed up blood?	7.1%	0.8%	0.8%	0.8%	2.0%	0.4%	2.4%
Do you ever have pain in the chest?	28.0%	2.8%	3.1%	5.9%	3.9%	6.3%	5.9%
Do you have difficulty breathing?	9.4%	0.0%	2.0%	1.6%	1.6%	0.0%	4.3%

TABLE 6 (continued)

Conditions	Those Who Said Yes	Those Who Said Yes for Each Condition By Age Group					65 and Older
		15-24	25-34	35-44	45-54	55-64	
Do you often throw up or vomit?	13.0%	0.4%	2.0%	2.0%	0.8%	3.5%	4.3%
Have you begun to have diarrhea lately?	20.1%	0.4%	2.0%	2.4%	2.8%	6.3%	6.3%
Have you begun to be constipated lately?	17.3%	2.4%	1.6%	1.6%	3.1%	3.5%	5.1%
In the last year, have your bowel movements been bloody at times?	6.7%	0.4%	0.8%	0.0%	0.8%	2.0%	2.8%
In the last year, have you ever passed blood when urinating (passing water)?	2.8%	0.0%	0.0%	0.0%	0.0%	1.2%	1.6%
Do you often have backaches?	32.7%	2.0%	3.1%	10.2%	7.1%	2.4%	7.9%
Do you have trouble sleeping?	30.7%	1.2%	2.8%	7.1%	6.7%	3.9%	9.1%

rated it good, 30 percent rated it fair, and 8.2 percent rated it poor. Eighteen point eight (18.8) percent rated their spouses health as excellent, 42.4 percent rated it good, 24.3 percent rated it fair, 5.9 percent rated it poor, and 8.6 percent didn't know how to rate it. Fifteen point seven (15.7) percent rated their children's health as excellent, 44.3 percent rated it good, 26.7 percent rated it fair, 3.5 percent rated it poor, while 9.8 percent did not rate it.

TABLE 7
RESPONDENT'S SATISFACTION WITH STATE OF HEALTH

Categories	Number	Percentage
Satisfied	161	63.1
Not satisfied	77	30.2
Don't know	<u>17</u>	6.7
	255	

Table 9 presents responses on subjects' health care. Subjects were asked if they take the best possible care of their own health, or could they do more. If married, they were asked if their spouse takes the best possible care of his/her health. Sixty-two point four (62.4) percent of respondents said they take the best possible care of their health, while 57.3 percent of those married said their spouse takes the best possible care of his/her health.

TABLE 8
RATINGS OF RESPONDENTS' HEALTH, SPOUSE AND CHILDREN

Health Rating	Self	Spouse	Children
Excellent	27.5%	18.8%	15.7%
Good	33.7%	42.4%	44.3%
Fair	30.2%	24.3%	26.7%
Poor	8.2%	5.9%	3.5%
Don't know	0.4%	8.6%	9.8%

TABLE 9
RESPONSES ON CARE OF HEALTH

Categories	Best Possible Care	Could Do More	Don't Know
Respondent	62.4%	34.1%	3.5%
Spouse	57.3%	31.4%	11.4%

Table 10 shows subjects' response to the question of whether the chances of getting good health care today is better than it was 30 years ago. Sixty point four (60.4) percent said today is better than 30 years ago, while 29 percent said 30 years ago was better than today.

TABLE 10
PREFERENCE OF TODAY'S CARE OVER 30 YEARS AGO

Categories	Number	Percentage
Better	154	60.4
Worse	74	29.0
About same	17	6.7
Don't know	<u>10</u>	3.9
	255	

Table 11 presents those respondents who would see a physician in their home for 30 minutes without charges. Sixty point four (60.4) percent said yes and 28.2 percent said no. The major topics those who said yes would like to ask about are the causes of today's diseases, better understanding of today's medicine, and how best to take care of their health.

Table 12 presents a breakdown in percentage of correct response to causes of diarrhea and malaria. There was a high percentage of subjects who did not know the causes of diarrhea or malaria. Sixty-eight point two (68.2) percent of subjects could not name any cause of diarrhea and 84.7 percent of subjects could not name any cause of malaria. Two (2) percent of subjects said cold water causes malaria, another 2 percent said palm oil causes malaria, while a little over 1 percent said the season for harvesting yam was responsible for the occurrence of malaria.

TABLE 11
HEADS OF HOUSEHOLD WHO WOULD TALK TO PHYSICIANS

Categories	Number	Percentage
Yes	154	60.4
No	72	28.2
Don't know	<u>29</u>	11.4
	255	

TABLE 12
KNOWLEDGE OF CAUSES OF DIARRHEA AND MALARIA
BY PERCENTAGE OF CORRECT RESPONSES

Correct Responses	Diarrhea		Malaria	
	Number	Percentage	Number	Percentage
Five or more	0	0.0	0	0.0
Three or four	3	1.2	1	0.4
Two	17	6.7	3	1.2
One	61	23.9	35	13.7
Unable to name any	<u>174</u>	68.2	<u>216</u>	84.7
	255		255	

Table 13 shows respondents' knowledge of the symptoms of pneumonia, measles, and tuberculosis. Over 50 percent of respondents did not know any symptom of these three diseases. The percentage of respondents who were unable to name any symptoms were 74.5 percent for

TABLE 13

KNOWLEDGE OF SYMPTOMS OF PNEUMONIA, MEASLES AND, TUBERCULOSIS
BY NUMBER AND PERCENTAGE OF CORRECT RESPONSES

Correct Responses	Pneumonia		Measles		Tuberculosis	
	Number	Percentage	Number	Percentage	Number	Percentage
Five or more	0	0.0	0	0.0	0	0.0
Three and four	2	0.8	6	2.4	3	1.2
Two	11	4.3	39	15.3	5	2.0
One	52	20.4	81	31.8	31	12.1
Unable to name any	<u>190</u>	<u>74.5</u>	<u>129</u>	<u>50.6</u>	<u>216</u>	<u>84.7</u>
	255		255		255	

pneumonia, 50.6 percent for measles, and 84.7 percent for tuberculosis. One must be very cautious in interpreting the data in Tables 12 and 13 since the majority of the study sample had no formal education. The limitation of interpreting data of this nature was pointed out by Feldman in the following statement.

Since people with little formal schooling are generally less articulate than better educated people, they are probably less able to verbalize things they actually know. Consequently, lack of information of the kind this sort of question demands does not necessarily imply a dangerous degree of ignorance.

A second reason for the cautious interpretation is that little or no knowledge of disease causes and symptoms does not necessarily mean that a person will not recognize a symptom when it develops and take the appropriate health action (Carlton, 1973).

Table 14 presents subjects' response to whether or not diarrhea, malaria, pneumonia, measles, and tuberculosis are contagious. Seventy (70) percent of the subjects said that diarrhea, malaria, and pneumonia were not contagious, 18 percent said measles was not contagious. The percent of respondents who said the diseases were contagious were 76 for measles, 68 for tuberculosis, 16 for diarrhea, 15 for malaria, and 9 for pneumonia.

Table 15 shows the sample's opinion on physicians and native doctors. There is an inverse relationship between the sample opinion of physicians and native doctors in all but two of the categories. The inverse relationship means that where the majority of subjects said "true of most" for physicians in a category, the majority also said "not true" for native doctors in the same category and vice versa.

TABLE 14
ILLNESSES CONSIDERED CONTAGIOUS BY STUDY SAMPLE

Categories	Considered Contagious		Not Considered Contagious		Don't Know		Total	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Diarrhea	41	16.1	179	70.2	35	13.7	255	100
Malaria	38	14.9	179	70.2	38	14.9	255	100
Pneumonia	22	8.6	178	69.8	55	21.6	255	100
Measles	193	75.7	42	16.5	20	7.8	255	100
Tuberculosis	173	67.8	45	17.6	37	14.5	255	100

TABLE 15

OPINION OF SAMPLE ON HEALTH PROVIDERS (PHYSICIANS AND NATIVE DOCTORS)

Categories	Physicians			Native Doctors		
	True of Most	Not True	Don't Know	True of Most	Not True	Don't Know
They don't give you a chance to tell them exactly what your problem is.	58.0%	34.5%	7.5%	23.9%	47.5%	28.6%
They don't take enough personal interest in you.	63.1%	29.8%	7.1%	27.1%	41.6%	31.4%
They give you quite a bit of their time free and to people who need it.	55.7%	33.7%	10.6%	45.5%	23.1%	31.4%
They will tell you frankly they don't know what your trouble is.	44.3%	41.6%	14.1%	24.3%	39.2%	36.5%
They like to give you medicine even if you don't need it.	46.7%	38.0%	15.3%	27.8%	35.3%	36.9%

TABLE 15 (continued)

Categories	Physicians			Native Doctors		
	True of Most	Not True	Don't Know	True of Most	Not True	Don't Know
They don't tell you enough about your condition.	50.6%	34.5%	14.9%	29.4%	33.7%	36.9%
They tell you there is nothing much wrong with you when you know there is.	63.9%	20.8%	15.3%	34.1%	31.8%	34.1%
They make you wait entirely too long when you try to see them in their office or clinic.	75.3%	11.4%	13.3%	24.3%	42.7%	32.9%

The only two exceptions where the subjects responded almost the same for both physicians and native doctors, were: (1) "providers give quite a bit of their time free and to people who need it." The majority felt that this was true of both physicians and native doctors; (2) "they tell you there is nothing much wrong with you when you know there is." The majority again felt that this was true of most health providers. There were higher percentages of "don't know" responses about native doctors than there were about physicians. The percentage of "don't know" about native doctors under each category is more than double that of physician in the same category. This may be due to the fact that there were more subjects who had not utilized the services of a native doctor than there were subjects who had not been to a physician.

Table 16 presents respondents' opinion about preferred forms of payment for provider care in both physician and native doctors. For physician care, 51.4 percent would prefer the same fees for everyone while 34.1 percent would prefer pay according to income. For native doctor care, 42.4 percent would prefer same fees for all while 32.9 percent liked pay according to income.

Table 17 shows the sample opinion on health care cost. A majority of the population felt that doctors' fees, hospital charges, and cost of prescription drugs were much too high. When asked about doctors' fees, 47.5 percent said they were much too high, 11.4 percent said they were a little too high, 21.2 percent said they were about right, and 20 percent said they do not know. When asked about hospital charges, 42.4 percent said they were much too high, 12.9 percent said

they were a little too high, 24.7 percent said about about right, and 20 percent said they did not know. On cost of prescription drugs, 45.9 percent said they were much too high. 14.1 percent said a little too high, 17.6 percent said about right, and 22.4 percent reported they do not know.

TABLE 16
RESPONDENT'S PREFERENCE REGARDING PROVIDER'S CHARGES

Categories	Physicians		Native Doctor	
	Number	Percentage	Number	Percentage
Same fees for all	131	51.4	108	42.4
Pay according to income	87	34.1	84	32.9
Don't know	<u>37</u>	14.5	<u>63</u>	24.7
	255		255	

TABLE 17
OPINION ON HEALTH CARE COST

Categories	Doctor's Fees	Hospital Charges	Cost of Drugs
Much too high	47.5%	42.4%	45.9%
A little too high	11.4%	12.9%	14.1%
About right	21.2%	24.7%	17.6%
Don't know	20.0%	20.0%	22.4%

Table 18 presents subjects' reasons for not seeing a doctor when they were sick. The most frequent reason given was high fees, which prevented 51 percent of the subjects from seeing a doctor. Thirty-six point nine (36.9) percent did not see a doctor when they were ill because they did not have a way to his/her office. Twenty-one point two (21.2) percent did not see a doctor because they were afraid of being hurt by the doctor, another 21.2 percent did not see a doctor because the doctor's office was too far from home. Seventeen point three (17.3) percent did not see a doctor because they did not think the doctor could help them, and 16.1 percent did not see a doctor because they were too busy.

TABLE 18
REASONS FOR NOT SEEING A DOCTOR WHEN ILL

Categories	Percent of Those Who Said Yes
I didn't have any way to get to the doctor's office	36.9
Doctors charge too much	51.0
It might be painful, the doctor might hurt me	21.2
I was too busy to see a doctor, I didn't have time	16.1
I didn't think the doctor could help me	17.3
The doctor's office was too far away	21.2

Table 19 shows subjects' opinion on who to see or what to do if one becomes sick with any of these illnesses. Over 50 percent of subjects said that one should see a physician for any of these illnesses. Between 7 and 27 percent said one should take care of oneself for these illnesses without seeing a health provider. Ten (10) to 18 percent said one should see a native doctor for seven of the illnesses.

Tuberculosis, with 87.8 percent, ranked highest among the illnesses that subjects felt one should see a doctor about, while malaria ranked lowest with 55.3 percent. Malaria, with 18.4 percent, was highest among the illnesses that subjects felt one should seek a native doctor's treatment, while tuberculosis ranked lowest with 2.7 percent. Constipation, with 27.1 percent, ranked highest among illnesses that subjects felt needed self care, while coughing up blood was lowest with 6.3 percent. Frequent headache, with 1.6 percent, was highest among the illnesses that one should not bother about, while there were seven illnesses with no reported frequencies. Pneumonia, with 6.7 percent, was highest among illnesses where subjects said "don't know," while cough for several weeks was the lowest with 0.8 percent.

Table 20 presents respondents' view on whether or not the government of Nigeria is providing enough medical care for the poor. Although 9 percent of the subjects did not express any opinion on this question, those who did were almost evenly split between the responses yes and no. Forty-seven point eight (47.8) percent said yes, 43.2 percent said no.

TABLE 19
OPINION ON WHO TO SEE OR WHAT TO DO FOR DIFFERENT ILLNESSES

Categories	See Doctor	See Native Doctor	Care for Self	Shouldn't Bother	Don't Know
Cough for several weeks	78.4%	4.3%	16.5%	0.0%	0.8%
Constipation for a week	63.5%	7.1%	27.1%	0.0%	2.4%
Backache fairly often	70.2%	7.8%	18.0%	0.8%	3.1%
Cough up blood	82.4%	6.3%	6.3%	0.8%	4.3%
Headaches a whole lot	57.3%	12.2%	26.3%	1.6%	2.7%
Pain in chest a lot	72.9%	8.2%	16.9%	0.8%	1.2%
Diarrhea	63.9%	13.3%	21.2%	0.0%	1.6%
Measles	65.1%	11.4%	21.2%	0.4%	2.0%
Tuberculosis	87.8%	2.7%	7.1%	0.0%	2.4%
Tetanus	74.9%	10.6%	9.4%	0.0%	5.1%
Pneumonia	68.6%	12.5%	12.2%	0.0%	6.7%
Dysentery	56.9%	14.1%	26.7%	0.0%	2.4%
Malaria	55.3%	18.4%	23.9%	0.8%	1.6%

TABLE 20
OPINION ON ENOUGH GOVERNMENT HEALTH CARE FOR POOR NIGERIANS

Categories	Number	Percentage
Yes	122	47.8
No	110	43.2
Don't know	23	9.0

The knowledge of and need for radio programs on health is shown in Table 21. Eighty point eight (80.8) percent of respondents are aware of radio program on health issues, while 96.1 percent saw a need for such program. This is an indication of the population's interest for more information on health issues. Nineteen point two (19.2) percent are not aware of any radio program on health issues, while 3.9 percent fail to see the need for such program.

TABLE 21
KNOWLEDGE AND NEED FOR RADIO PROGRAM ON HEALTH

Categories	Knowledge Of		Need For	
	Number	Percentage	Number	Percentage
Yes	206	80.8	245	96.1
No	49	19.2	10	3.9

Table 22 is a cross tabulation of study by gender and specific illnesses. More males than females indicated that they have or have had all but two of these illnesses. There were more females who now have dysentery and worms or parasites than there were males. The same percentage of males and females have had tuberculosis in the past.

TABLE 22
PAST AND PRESENT ILLNESSES REPORTED IN STUDY BY GENDER

Illnesses	Has Now		Has Had But Not Now	
	Male	Female	Male	Female
Yellow fever	7.5%	2.7%	38.4%	22.7%
Sinus Trouble	9.0%	3.1%	37.3%	25.1%
Tuberculosis	2.0%	0.4%	10.6%	10.6%
Diarrhea	1.6%	0.8%	35.7%	22.4%
Tetanus	4.3%	0.0%	15.3%	11.0%
Malaria	6.3%	2.0%	41.6%	25.1%
Dysentery	2.7%	3.5%	42.7%	24.7%
Pneumonia	2.0%	0.8%	26.3%	18.8%
Measles	1.6%	0.0%	37.3%	21.6%
Parasites or worms	0.8%	2.7%	34.9%	19.6%

When asked what were the causes of diarrhea and malaria, the responses are shown by gender in Table 23. There were no response of five or more correct causes of diarrhea or malaria. There is no significant difference between male and female regarding the knowledge of the causes of diarrhea and malaria at the 0.05 level of probability.

TABLE 23
KNOWLEDGE OF CAUSES OF DIARRHEA AND MALARIA BY GENDER

Correct Responses	Diarrhea		Malaria	
	Male	Female	Male	Female
Five or more	0.0%	0.0%	0.0%	0.0%
Three or four	0.4%	0.8%	0.4%	0.0%
Two	5.1%	1.6%	0.8%	0.4%
One	14.9%	9.0%	5.9%	7.8%
Unable to name any	41.2%	27.1%	54.5%	30.2%
$\chi^2 = 2.73$		$\chi^2 = 6.54$		
df = 3		df = 3		
N = 255		N = 255		

χ^2 = chi square

df = degrees of freedom

N = sample size

Table 24 shows the percentage of male and female correct responses to questions on the symptoms of pneumonia, measles, and tuberculosis. There is no significant difference between male and female in the knowledge of the symptoms of pneumonia, measles, and tuberculosis at the 0.05 level of probability. None of the subjects were able to name over four correct symptoms of the three diseases. There is no limit as to what is considered a correct response since such information varies with different sources. All acceptable responses are discussed in the summary at the end of this chapter.

The 15 villages were divided into four subgroups as presented in Table 25. Three of the subgroups had four villages each, while the fourth subgroup had three villages. Groups 1 and 2 are much closer to the health clinic than Groups 3 and 4. The four groups are cross tabulated with each category on causes of diarrhea and malaria.

Table 26 is similar to Table 25. It shows the village groups cross tabulation with symptoms of pneumonia, measles, and tuberculosis. The "5 or more" category was omitted since there were no recorded correct five or more symptoms of these three diseases. Groups 1 and 2 had a higher average correct response than Groups 3 and 4. This could be interpreted as a correlation between knowledge of causes and symptoms of diseases and the proximity of subject to a health clinic.

There is a significant difference between the village groups regarding the knowledge of the causes of diarrhea and malaria, and the symptoms of pneumonia and measles at the 0.05 level of probability. The Village Groups 1 and 2 had a higher percentage of correct responses than Village Groups 3 and 4. The villages in Groups 1 and 2 are closer

TABLE 24

KNOWLEDGE OF SYMPTOMS OF PNEUMONIA, MEASLES, AND TUBERCULOSIS BY GENDER

Categories	Pneumonia		Measles		Tuberculosis	
	Male	Female	Male	Female	Male	Female
Five or more	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Three or four	0.4%	0.4%	1.6%	0.8%	1.2%	0.0%
Two	1.6%	2.7%	10.2%	5.1%	1.6%	0.4%
One	10.6%	9.8%	21.6%	10.2%	7.8%	4.3%
Unable to name any	49.0%	25.5%	28.2%	22.4%	51.0%	33.7%
$\chi^2 = 6.54$ $\chi^2 = 3.67$ $\chi^2 = 2.88$						
df = 3 df = 3 df = 3						
N = 255 N = 255 N = 255						

 χ^2 = chi square

df = degrees of freedom

N = sample size

TABLE 25
KNOWLEDGE OF DISEASE CAUSES BY VILLAGE GROUPS

Village Group	Diarrhea					Measles				
	5 or More	3-4	2	1	None	5 or More	3-4	2	1	None
1	0.0%	1.2%	3.9%	7.5%	14.1%	0.0%	0.4%	0.8%	7.5%	18.0%
2	0.0%	0.0%	2.0%	8.2%	16.5%	0.0%	0.0%	0.4%	5.1%	21.2%
3	0.0%	0.0%	0.8%	5.1%	20.8%	0.0%	0.0%	0.0%	0.8%	26.3%
4	0.0%	0.0%	0.0%	3.1%	16.9%	0.0%	0.0%	0.0%	0.8%	19.2%
$\chi^2 = 29.26$						$\chi^2 = 33.34$				
df = 9						df = 9				
N = 255						N = 255				

χ^2 = chi square

df = degrees of freedom

N = sample size

TABLE 26

KNOWLEDGE OF DISEASE SYMPTOMS BY VILLAGE GROUPS

Village Group	Pneumonia				Measles				Tuberculosis			
	3-4	2	1	None	3-4	2	1	None	3-4	2	1	None
1	0.0%	2.0%	8.6%	16.1%	0.4%	5.1%	12.9%	8.2%	0.4%	0.8%	2.0%	23.5%
2	0.8%	2.0%	3.1%	20.8%	0.8%	4.7%	6.7%	14.5%	0.4%	0.4%	6.3%	19.6%
3	0.0%	0.4%	4.7%	21.6%	0.8%	1.6%	9.0%	15.3%	0.0%	0.0%	2.4%	24.3%
4	0.0%	0.0%	3.9%	16.1%	0.4%	3.9%	3.1%	12.5%	0.4%	0.8%	1.6%	17.3%
$\chi^2 = 21.96$				$\chi^2 = 24.67$				$\chi^2 = 15.30$				
df = 9				df = 9				df = 9				
N = 255				N = 255				N = 255				

to the district health clinic than the villages in Groups 3 and 4. However, four or five of the 16 cells in each of the three chi square tables had no frequency. This and the fact that Group 4 had only three villages as opposed to four villages in the other groups could render the value of these chi square tables questionable. There was no significant difference between the village groups regarding the knowledge of the symptoms of tuberculosis at the 0.05 level of probability.

Table 27 shows knowledge of symptoms of pneumonia and measles by age group. Again, "5 and more" category is omitted for nonresponse. The highest correct response was in the 45-54 year age group with over 7 percent naming one correct symptom each of pneumonia and measles. Ten (10) percent of 65 years and older named one correct symptom of measles, while 4 percent of the same age group named one correct symptom of pneumonia. For the 55-64 year age group, 4 percent and 5 percent named one correct response for pneumonia and measles, respectively.

There is a significant difference between the age groups regarding the knowledge of the symptoms of pneumonia and measles at the 0.05 level of probability. The percentage of correct response was highest for the 65 years and older group and lowest for the 15-24 year age group.

Table 28 shows whether or not malaria, pneumonia, and measles are believed contagious. The response on this table is based on percentage per age group. There is no significant difference between age groups regarding knowledge of illness that are believed to be contagious at the 0.05 level of probability. Health educators should

TABLE 27

KNOWLEDGE OF SYMPTOMS OF PNEUMONIA AND MEASLES BY AGE GROUP

Age Group	Pneumonia				Measles			
	3-4	2	1	None	3-4	2	1	None
15-24	0.0%	0.0%	0.4%	7.8%	0.4%	0.8%	2.2%	4.3%
25-34	0.0%	0.8%	2.0%	5.5%	0.0%	1.6%	3.1%	3.5%
35-44	0.0%	0.0%	2.7%	17.6%	0.4%	2.0%	3.1%	14.9%
45-54	0.0%	0.8%	7.1%	7.8%	0.0%	3.9%	7.8%	3.9%
55-64	0.4%	1.6%	3.9%	9.8%	0.8%	3.5%	4.7%	6.7%
65 and older	0.4%	1.2%	4.3%	25.5%	0.8%	3.5%	9.8%	17.3%
$\chi^2 = 35.45$					$\chi^2 = 32.13$			
df = 18					df = 18			
N = 254					N = 254			

 χ^2 = chi square

df = degrees of freedom

N = sample size

TABLE 28

ILLNESSES CONSIDERED CONTAGIOUS BY AGE GROUP

Age Group	Malaria		Pneumonia		Measles	
	Contagious	Not	Contagious	Not	Contagious	Not
		Contagious		Contagious		Contagious
15-14	3.9%	3.9%	2.0%	3.5%	6.3%	1.6%
25-34	0.8%	5.5%	0.0%	5.5%	5.5%	1.2%
35-44	1.6%	15.0%	2.0%	14.6%	12.6%	3.9%
45-54	2.0%	11.0%	0.4%	10.2%	13.0%	2.8%
55-64	2.0%	12.2%	1.2%	13.4%	13.8%	1.6%
65 and older	4.7%	22.4%	3.1%	22.4%	24.4%	5.5%
$\chi^2 = 23.60$		$\chi^2 = 22.10$		$\chi^2 = 21.66$		
df = 10		df = 10		df = 10		
N = 254		N = 254		N = 254		

 χ^2 = chi square

df = degrees of freedom

N = sample size

be concerned with the percentage of subjects who said pneumonia and measles were not contagious. There was a higher percentage of this group that felt this way about pneumonia than measles.

Table 29 shows sample response on whether or not enough was being done by the government of Nigeria to provide health care for the poor. The response here was grouped by age. "Yes" indicated enough was being done and "no" indicated more needed to be done. There was a split among the age groups; more respondents in age group 15-24 and 65 and older said enough was being done. On the other hand, more respondents in age groups 25-34, 45-54, and 55-64 said that more needed to be done.

There is a significant difference between the age groups regarding their opinions on government programs for the poor at the 0.05 level of probability. The majority of the age groups 15-24 and 35-44 felt that the government was doing enough to provide health programs for the poor. The older age groups, 45-54 and 55-64, felt that more needed to be done to provide health care for the poor in Nigeria.

I. SUMMARY

In summation, 63 percent of the sample were satisfied with their health even though the majority of the sample could not name any of the causes of symptoms of the five diseases identified in the questionnaire. According to Werner (1982), the main causes of diarrhea are poor nutrition, virus infection or intestinal flu, bacteria infection of the gut, worm infections, infection outside the gut, malaria, food poisoning, inability to digest milk, difficulty babies have digesting

TABLE 29
OPINION ON SUFFICIENT GOVERNMENT PROGRAMS
FOR THE POOR BY AGE GROUP

Age Group	Yes	No	Don't Know
15-24	5.5%	2.4%	0.4%
25-34	3.5%	4.3%	0.4%
35-44	13.4%	5.5%	1.6%
45-54	3.9%	11.0%	0.8%
55-64	5.1%	9.4%	1.2%
65 and older	16.5%	10.2%	4.7%

$$\chi^2 = 32.7$$

$$df = 10$$

$$N = 254$$

foods that are new to them, allergies to certain food, side effects produced by certain medicines such as ampicillin or tetracycline, laxatives, purges, irritating or poisonous plants, certain poisons, and eating too much unripe fruit or heavy, greasy foods.

Malaria is caused by anopheles mosquitoes, uncleared bushes around the house where malaria breed, and collection of dirty water around the house where mosquitoes also breed. The mosquito sucks up the malaria parasites in the blood of an infected person and injects them into the next person it bites.

The signs and symptoms of pneumonia are sudden chills and then

high fever; rapid, shallow breathing with little grunts or sometimes wheezing. The nostrils may spread with each breath; fever (sometimes newborn and old or very weak persons have severe pneumonia with little or no fever); cough (often with yellow-, greenish-, rust-colored, or slightly bloody mucus); chest pain (sometimes); the person looks very ill; cold sores often appear on the face or lips; a very sick child who takes more than 50 shallow breaths a minute probably has pneumonia.

The signs and symptoms of measles are cold-fever, runny nose, red, sore eyes, cough, mouth may become very sore, may develop diarrhea. After two or three days, a few tiny white spots like salt grains appear in the mouth, the rash appears a day or two later--first behind the ears and on the neck, then on the face and body, and last on the arms and legs.

The most frequent signs and symptoms of tuberculosis are chronic cough, especially just after waking up; mild fever in the afternoon, and sweating at night; there may be pain in the chest or upper back; chronic loss of weight and increasing weakness. In serious or advanced cases the signs include coughing up blood (usually a little, but in some cases a lot); pale, waxy skin; voice grows hoarse (very serious). Malaria is not contagious; diarrhea, pneumonia, measles and tuberculosis are contagious.

In reviewing the tables in this chapter, the reader should keep in mind that there were 62 percent male and 38 percent female in the sample. As a result, the difference in percentages in those tables where data were cross tabulated with sex could be a reflection of the percentage difference between male and female in the sample. Due to

the fact that almost 90 percent of the respondents were married, there was no sound rationale for cross tabulating marital status with questions on health needs, knowledge, and attitudes.

The survey does support the importance of much needed health education in the area. The fact that over 50 percent of the respondents could not name any of the causes or symptoms of the five most common diseases in their area further shows a need for health education in the target population.

The open-ended questions in Section B of the instrument were essential to determine the degree to which the population has misconceptions regarding the knowledge of disease causes and/or symptoms. These misconceptions were evident in the percentage of heads of households that reported cold water, palm oil, and the season for harvesting yam as causes of malaria.

CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

I. SUMMARY

The purpose of the study was to assess the level of health knowledge of heads of households, their perceived needs, and attitude toward health services in order to make recommendations and suggest a plan for new health programs in the Iyekuselu District area, Nigeria.

The study involved 255 heads of households in Iyekuselu District area to assess their health knowledge, perceived needs, and attitude toward services in their area. An acceptable sample size was arrived at by using Morgan and Krejcie's formula for small sample size for research activities technique.

Five interviewers were trained to assist the researcher in the data collection process. Of the five interviewers, two were health superintendents who were assigned to the villages where the study was done; two were health superintendents in training and were both doing their field practice at the time, and finally a student. A health superintendent is a person who upon receiving three years of academic and field training in a school of health technology, has the responsibility of educating the people about personal hygiene and environmental sanitation. The interviews were conducted by the researcher and the trained interviewers by visiting the villages in the sample. Before the data collection commenced, the interviewers were trained for two

days using the questionnaire to demonstrate how the interview was to be conducted.

Once the completed questionnaires were received, the data were key punched at The University of Tennessee computer center. The instrument was precoded to facilitate the key punching of data upon receipt. Frequencies and percentages were calculated for responses on all items. Appropriate chi square tests were run with the two-way tables to determine if there was a significant difference at the 0.05 level of probability.

II. FINDINGS

The following is a breakdown of the results of subjects' health knowledge, needs, and attitudes toward health services in the area.

1. Of the sample containing 255 heads of households, 62 percent males and 38 percent females. Almost 90 percent of them were married, 7 percent single, less than 1 percent divorced, and 3 percent widowed. Age was broken down into six groups, with the highest percentage (31 percent) in the 65 years and older group.

2. Over 10 percent of the sample had yellow fever at the time of the study while 12 percent had sinus trouble. Malaria had the highest prevalence rate with 74.9 percent; tuberculosis had the lowest prevalence rate with 23.6 percent.

3. Sixty point six (60.6) percent of the sample often had bad headaches, 36.6 percent had bad teeth, 32.7 percent had backaches, while 30.7 percent had trouble sleeping. In all the conditions listed,

more people in the 65 years and older group were suffering from all the conditions than any other age group.

4. Sixty-three point one (63.1) percent of the sample were satisfied with their health while 30.2 percent were not. The remaining 6.7 percent did not report their state of health.

5. Over 60 percent of the sample rated their health, their spouse's health, and their children's health as either excellent or good. Less than 9 percent rated their health, their spouse's or children's health as poor.

6. Over 60 percent of the sample said that the chances of getting better health services at the time of the study was better than it was 30 years ago as opposed to 29 percent who felt that 30 years ago was better than it was at the time of the study.

7. Over 68 percent were unable to name any of the causes of diarrhea while more than 84 percent were unable to name any of the causes of malaria. Seventy-five (75) percent were unable to name symptoms of pneumonia, 51 percent could not name any symptoms of measles, and 85 percent could not name any symptoms of tuberculosis.

8. Over 60 percent of the sample would talk to a physician if one were provided at no cost to them. Twenty-eight point two (28.2) percent would not talk to a physician, and 11.4 percent were not certain that they would or not. The majority of those who would talk to a physician said that they would ask questions relating to causes of today's illnesses, the best possible cure for whatever ailment they are suffering from, and the quality of today's drugs.

9. About 70 percent of the sample said diarrhea, malaria, and

pneumonia were not contagious. Seventy-five point seven (75.7) percent said measles was contagious and 67.8 percent said tuberculosis was contagious.

10. The majority of the sample (75.3 percent) said that physicians make patients wait entirely too long before they are attended to while the majority (42.7 percent) said the exact opposite was true for native doctors. Over 45 percent of the sample felt that both physicians and native doctors do not give quite a bit of their time free to people who need it. The majority of the sample would prefer a native doctor over a physician if the matter were interpersonal in nature. A positive provider-patient relationship was more evident in the subjects' attitude towards native doctors than it was towards physicians.

11. Over 42 percent of the sample would like both physicians and native doctors to charge all patients the same fees for the same conditions or illnesses. Less than 35 percent would prefer to pay both providers, for the same condition or illness, according to patient income. The sample, however, expressed their concern for increasing health care cost. Over 42 percent said that hospital cost, doctors' fees, and cost of prescriptions drugs were much too high.

12. Over 55 percent of the sample indicated that they would see a physician if they became ill. The percentage of subjects who said they would see a physician if they had tuberculosis was 87.8 percent while only 2.7 percent said they would see a native doctor for tuberculosis. Fifty-five point three (55.3) percent of the subjects

said they would see a physician if they had malaria while 18.4 percent said they would see a native doctor for malaria.

13. Forty-seven point eight (47.8) percent of the sample believed that the government was providing enough medical care for poor Nigerians, while 43.2 percent believed that much needed to be done in the areas of health care programs for the poor, while 9 percent did not express any opinion.

14. Over 80 percent of the sample said that they were aware of a radio program on health issues while 96.1 percent felt there was a need for a radio program on health.

III. CONCLUSIONS

The following conclusions are based on findings related to the research problem statement.

1. The heads of households in the Iyekuselu District, Bendel State, Nigeria, self report their health as good even though a low level of knowledge and understanding of diseases endemic to the area exist.

2. The heads of households' attitude toward health services provided at the medical facilities are generally negative.

3. The heads of households in the Iyekuselu District, Nigeria, accept traditional healing administered by native doctors as legitimate alternative health care. However, for the illnesses considered in this study, the vast majority will consider orthodox medicine. When the native doctor is preferred, it was due to the concern for interpersonal matters.

4. The self perceived health care needs of these heads of households are disease control and improved accessibility to health care facilities at low cost.

5. The data gathered in this study appear to support the concept that a health education/promotion program is a legitimate vehicle for improving the health status of individuals living in Iyekuselu District, Bendel State, Nigeria.

IV. RECOMMENDATIONS

The following recommendations were based on the conclusions reached in this study:

1. Strong emphasis should be placed on disseminating lucid information on the causes and symptoms of the five diseases identified in this study. The diseases--diarrhea, malaria, pneumonia, measles, and tuberculosis--are known to be the leading causes of death in these areas and in Nigeria as a whole. Health educators should work closely with the local people so as to reduce the shockingly high percentage of those who are not knowledgeable of the causes and symptoms of these diseases.

2. Drug shortage has become an endemic problem in Nigeria; as a result, effort should be geared towards encouraging the use and proliferation of traditional medicine. There should be incentive from the federal government to encourage research towards efficient and effective utilization of traditional medicine. However, since the interest in orthodox medicine is increasing, pharmaceutical industries in Nigeria should be encouraged to produce drugs that are of high

demand in Nigeria. Ultimately, there should be a national goal of integrating orthodox and traditional medicine.

3. Mass media, particularly the radio, should be used as an effective health education tool to educate the people about disease prevention and curative. There should be a program specifically dealing with health issues and the local people should be informed about the existence of such programs.

4. Research should be undertaken on a continuous basis to determine the best possible method for improving the health status of the people. Whatever method is developed should incorporate evaluation measures to continuously measure the efficacy of such a program.

5. A massive health education campaign should be undertaken by health educators, health superintendents, and the Ekiadolor Health Center. A campaign committee should be set up to work with community leaders to embark on a community-wide campaign on the subject of health promotion and disease prevention. Their goal should be to convince the people that they can have better health if they would change certain behaviors, be aware of causes and symptoms of diseases, and understand how their lifestyle impacts their state of health.

6. Since the Nigerian government is very much in control of health activities, the government should use health professionals in the National Youth Service Corps to carry out the aforementioned tasks. The government should also plan and implement more health programs tailored towards the health needs of the populace.

CHAPTER VI

SUGGESTED HEALTH PROGRAM PLAN FOR IYEKUSELU, NIGERIA

I. INTRODUCTION

Health education plays a major role in helping individuals reinforce their behavior to reflect good health habits and a healthful lifestyle. Health information that is disseminated to the public will serve as the basis for community health education in an attempt to improve the health status of the people of Iyekuselu District. To educate the people, one needs to identify the problems that are known to plague the population, and assess the level of health knowledge in the villages where about 70 percent of Nigerians live. While health education is believed to be an important measure in preventing disease, this program addresses the need to reduce the existing high incidence of certain diseases in the villages. The villages in Nigeria have little or no health or medical facilities to provide needed health care services.

A health program that utilizes community members and resources is needed in the villages to provide adequate health care services for at least those diseases that have been identified to have high incidence and prevalence rates. An evaluation of this program is important in establishing the consistency of the program activities with its stated goal and objectives. And, also, to determine if there is a marked improvement in the health status of the villagers.

Findings from the health knowledge survey indicated that over 51 percent of the subjects could not name any causes or symptoms of the diseases found to be endemic to this area. Over 55 percent of the sample indicated that they would see a physician if they became ill.

The suggested program will last three years and six months. Six months will be spent in training the village health workers while the actual program will last three years.

II. GOAL AND OBJECTIVES

The goal of this program is to improve the health status of the people of the Iyekuselu District area by increasing from less than 49 percent to more than 75 percent the number of persons with knowledge of the causes and symptoms of the endemic diseases; by providing available and assessible primary health services to the people at low cost; by increasing from 55 percent to 90 percent the number of persons who prefer scientific medicine over traditional healing for these specific diseases.

The goal will be attained by achieving the following objectives as presented in Tables 30 through 34.

III. EVALUATION

The researcher will design a questionnaire that will be used for a survey at the end of the first, second, and third year of the program. The questionnaire will be made up of a portion of the heads of households' questionnaires. The parts of the questionnaire that will be used are the section on the incidence of the 10 diseases, the

TABLE 30

OBJECTIVE A: THE VILLAGERS WILL DEMONSTRATE POSITIVE HEALTH HABITS AND BEHAVIOR

Content	Methodology	Materials Needed	Evaluation
Changes in lifestyle.	Leaders of each of the 15 villages will select one high school graduate who lives in their village The selected persons will be trained in health education/promotion skills.	A booklet specifically designed for this program. A village health care handbook by David Warner.	A continuous record in the form of a graph will be kept by the village health worker. The initial step will involve taking note of dietary practices, water usages, and smoking among villagers.
Improved dietary practices.	The village health workers will educate the people about nutrition, water purification, and smoking as it relates to lung disease.	Booklet designed for this program. Slide presentations. Films.	Data will be collected at the end of the first, second, and third year to demonstrate how many people changed their diet, treatment of drinking water, and smoking habits as a result of the program.
Water purification.			
Smoking cessation.	The village health workers in cooperation with the village leaders will arrange a time and day for weekly health education/promotion sessions.	Tape recording of radio or T.V. program dealing with nutrition, water purity, and smoking.	

TABLE 31

OBJECTIVE B: THE VILLAGERS WILL DEMONSTRATE HEALTHFUL PERSONAL HYGIENE AND ENVIRONMENTAL SANITATION PRACTICES

Content	Methodology	Materials Needed	Evaluation
The people's daily practices: Washing hands before eating.	The village health workers will educate the people about the importance of washing hands, cleaning teeth, and using the toilet.	Booklet designed for this program. A health care handbook by David Warner.	The people will be interviewed to determine any change in their personal hygiene before and after the implementation of the health education/promotion activities.
Using chewing stick to clean teeth in the mornings.	The people will be educated at the weekly meeting arranged for the villagers.	Films. Slide presentations.	A health inventory test will be administered to the people before and after the program.
Defecating in the toilet rather than in the open. Clearing of bushes near house.	The village health workers will inform the villagers about the importance of clearing the bushes.	Tape recording of radio and T.V. programs on the subject.	
Draining of water collected near the house.	The community will be encouraged to construct gutters/drainage ditches to let out any collection of water around the houses in the village.	Health superintendents information code on environmental sanitation. Booklet designed for this program, "Guide on Constructing Gutters."	The village health workers will inspect the environment once a month to note any change in the quality of the environment. Records will be kept on the number of new gutters constructed during the monthly inspection.

TABLE 32
OBJECTIVE C: THE VILLAGERS WILL KNOW AND UNDERSTAND THE CAUSES OF DIARRHEA AND MALARIA,
AND THE SYMPTOMS OF PNEUMONIA, MEASLES, AND TUBERCULOSIS

Content	Methodology	Materials Needed	Evaluation
Knowledge of the causes of diarrhea and malaria, and the symptoms of pneumonia, measles, and tuberculosis.	The village health workers will present information to the people at the weekly meeting.	Booklet designed for this program. A village health care handbook by David Warner.	
Host-agent-environment. Reducing one's susceptibility to disease. The relationship of disease to man.	The village health workers will ask the villagers if they have any of the diseases. One or more of the villagers who have contracted any of these diseases will be asked to share with the others how they think they contracted the disease. The people will be asked to identify the various causes and symptoms of diseases.	Slide presentations. Films. Tape recordings of radio or T.V. programs on these diseases.	A survey will be conducted at the end of the first, second, and third year to determine the percentage of the people who can correctly name at least one cause or symptom of the diseases.

TABLE 33

OBJECTIVE D: GIVEN THE OPPORTUNITY TO CHOOSE BETWEEN TRADITIONAL AND SCIENTIFIC MEDICINE THE VILLAGERS WILL GO TO THE VILLAGE HEALTH WORKERS FOR DIAGNOSIS AND TREATMENT OF THE 10 DISEASES ENDEMIC TO THIS AREA

Content	Methodology	Materials Needed	Evaluation
The 10 diseases are yellow fever, sinus trouble, tuberculosis, diarrhea, tetanus, malaria, dysentery, pneumonia, measles, and worms.	A medical doctor will train the village health workers on how to diagnose and treat these diseases. The village health workers will diagnose and treat the 10 diseases.	Medical record forms. Booklet designed for the program. Medical equipment such as stethoscopes, thermometers, medications, etc.	The village health workers will keep a record of the number of patients they see each day. The researcher will calculate the average daily visit per month at the end of the first, second, and third year to note any pattern in the utilization of services.

TABLE 34

OBJECTIVE E: THE VILLAGERS WILL COOPERATE WITH THE VILLAGE HEALTH WORKERS BY PARTICIPATING
IN HEALTH EDUCATION/PROMOTION ACTIVITIES

Content	Methodology	Materials Needed	Evaluation
Program activities that are designed to address the needs of the workers.	The village health workers will encourage active participation of the villagers in the weekly meeting by incorporating feedback from the villagers to strengthen the program.	Booklet designed for this program.	The village health workers will keep record of the number of villagers that participate in the health education/promotion activities.
Demonstrated interest in the program.	Members of the village will be asked to give account of how they may have benefited from the program.	Films.	
Strengthening the positive aspect of the program.	Open discussions will be held to hear any suggestions for improvement from the villagers.	Slide presentations.	The villagers will be interviewed at the end of the first, second, and third year to determine their feelings about the program.

section on knowledge of the causes and symptoms of diarrhea, malaria, pneumonia, measles and tuberculosis, and the section on the subjects' preference of treatment for diseases.

In addition to these sections, there will be questions asked on (1) changes in behavior that may have resulted from the health education/promotion activity, (2) changes in personal hygiene before and after the implementation of the program, and (3) the villagers' opinion about the health program.

The village health worker in each village will carry out the interview using 17 randomly selected subjects in a village. The data will be analyzed by the researcher. The final analysis of the daily record of vital statistics kept by the village health workers and the findings from the survey will enable the researcher to conclude whether or not the goal has been attained.

IV. IMPACT MODEL

Village health workers will be used as health educators as well as primary health care providers in the villages. This is a reasonable alternative in the absence of hospitals and physicians. The program involves diagnoses and treatment of the 10 diseases by village health workers as would otherwise have been performed by the traditional primary health care providers, notably general practitioners. The output will be evaluated based on the degree to which the program reduces the morbidity rate of the 10 diseases. There will be an ongoing process evaluation during the course of the program to make

certain that the village health workers are keeping up with established criteria.

Fifteen village health workers will be selected and trained for the villages with one village health worker in a village. Their duties are to disseminate health education information to their village on a continuous basis. Finally, they will be responsible for keeping records of incidence of the 10 diseases that they are trained to diagnose and treat.

V. ORGANIZATION AND SUPERVISION OF THE PROGRAM

The experimental stage of this program should last for three years and six months (six months for training the village health workers; three years for service to the villages). At the end of the third year of service, data will be collected on the morbidity rate for the 10 diseases. A reduction in the morbidity rate for the 10 diseases as compared to data collected at the beginning of the program will validate the efficacy of the program. It is hoped that the effectiveness and efficiency of this program will invite support from government and private organizations to help sustain this program on a continuous basis.

To determine the effectiveness of the village health workers in their services, a group of graduating medical students who have completed their clinical practice, will be brought into the villages where the village health workers practice. A pair of village health workers and the graduating medical students will be set up in two adjacent rooms. Patients will be asked to visit the village health

workers and then the medical students for diagnosis and both diagnoses in each case will be compared to determine the percent of agreement between the village health workers and the graduating medical students.

VI. IMPLEMENTATION OF RESULTS

The results of the findings will become the basis for starting a comprehensive rural health program. This program will include the use of trained village health workers in areas where there is lack of or inadequate supply of physicians and other health care providers. The village health workers will be trained to diagnose and treat primary health problems. This is a framework for viewing various alternatives before initiating a program. Ultimately, there would be a gradual decline in not only the 10 diseases for this program, but other diseases that are known to have a high incidence and prevalence rate in the villages. This can become a model program for villages in Nigeria as well as for other developing areas of the world.

The program is estimated to cost N100,000.00 (one hundred thousand naira). Sixty-three thousand naira (N63,000.00) will be spent on the village health workers' salary. Each health worker will be paid N200.00 a month for three years. Thirty-seven thousand naira (N37,000.00) will be spent on purchasing the materials and equipment needed to provide and maintain the program for three years. The program will be funded by the Bendel State Ministry of Health, Benin City, Nigeria.

CHAPTER VII

EPILOGUE

The purpose of this study was to assess and analyze the level of health knowledge, perceived needs and attitude toward health services. The subjects were 255 heads of households in Iyekuselu District area, Bendel State, Nigeria. Recommendations were made as suggested plans for improving the health status of the people in this area to accomplish this task, a questionnaire was used to interview the 255 subjects. Fifteen villages were randomly selected from a list of 107 villages that make up the district. There were 17 interviews in each of the 15 villages.

The governmental structure in Nigeria is based on democracy. However, the health care system in Nigeria is highly socialized. The majority of the health care delivery institutions are owned by the government. Health issues are highly politicized and the result is a continuous decline in the quality of health services in the country. During the course of the data collection for this study, doctors and nurses in government owned hospitals and clinics in Bendel State were on strike. The private hospitals, which are mostly solo practice, were overflowing with patients that could not seek care from the main (General) hospitals.

Since a part of the traditional health care delivery in the hospitals is to provide drugs to patients for curing their diagnosed illnesses, shortage of drugs in hospitals becomes a common occurrence.

The reader who is interested in Nigerian health care delivery in terms of what is being provided should refer to Chapter II of this study under Health Systems Measurement on page 10.

One important aspect of this study was the difference in opinion among subjects on the question of whether or not the government provides enough health care services for the poor. The number of subjects who felt that the government was doing enough was about the same as those who felt that more needed to be done for the poor.

One view is that the government cannot actually provide free quality health services. In order for people to hope for better health care, they will have to be prepared to pay something. On the other hand, some of the monies allocated for the provision of health care deliveries are redirected for other less significant purposes, or are simply used for other nonintentional purposes. The pervasiveness of malfeasance of organization executives in the society has become a functional reality.

Another important feature that was brought out in this study is the need for educators in this area. The findings reveal that the majority of the subjects were unaware of the causes of malaria and diarrhea, and the symptoms of pneumonia, measles, and tuberculosis. Studies have shown that these are among the leading cause of death in this and other areas of Nigeria. Availability of health care services is limited in this area and the available services provide substandard services.

With a low availability, poor accessibility to existing facilities, low quality services, high cost of care in private

facilities, it is no surprise that the people are pessimistic about health care services. Given these problems, the people are more likely to practice self care, which presents more danger because they have very little knowledge of causes and symptoms of the diseases.

Though it may seem that fewer people use the services of native doctors than physicians, more people actually use the services of native doctors more than physicians when the problem is psychosomatic in nature, such as depression and frequent headaches. These problems are believed to be the result of the patient's belief in taboos or the patient's belief that he has somehow angered the gods and must seek the services of the native doctor. The native doctor does more than diagnosis and treatment, he/she is well known for his/her counseling ability.

A significant number of subjects responded that the chances of getting good health care was better 30 years ago than today. Some of the reasons they gave for the view was that there were more potent drugs then than there are today, and also there were fewer diseases than there are today. Regarding the potency of drugs, one can understand this view in terms of the high influx today of expired and condemned drugs from advanced nations into Nigeria. For many years, baby food manufacturers from advanced nations have successfully presented false information to mothers in Nigeria as well as other developing nations that baby food was better for the baby's growth and development than breast milk when, in fact, the reverse is true. There is also evidence that pharmaceutical companies, as well as other medical research teams from advanced nations, have now resorted to

using humans in countries like Nigeria for research involving drugs that could alter the person's psychophysiological being. As far as the existence of more diseases today than in the past, one can attribute this to increased life expectancy and longevity for Nigerians. More and more people now grow older only to become more susceptible to chronic degenerative diseases which were practically nonexistent 30 years ago. In essence, while we still haven't reduced the incidence and prevalence rate of infectious and communicable diseases, we are gradually growing into another disease phase, the chronic degenerative diseases.

Most of the subjects were satisfied with their health even though there is a great need for health care services and health education. Programs such as the one suggested will provide the opportunity for people to live a more productive life.

Majority of the subjects were unable to name any of the causes or symptoms of some diseases and yet 21 percent prefer self care for diarrhea and measles when ill with malaria. The result is an increase in the morbidity and mortality for diarrhea, malaria, and measles. The function of health educators is not to discourage self care but to educate the public on the causes of diseases, how to prevent the diseases from ever occurring, how to identify its occurrence at an early stage, and what to do for cure.

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APPENDICES

APPENDIX A

SURVEY QUESTIONNAIRE OF HEADS OF HOUSEHOLDS

SURVEY QUESTIONNAIRE OF HEADS OF HOUSEHOLDS

Code

1-6

I.D. Number:

Sheet No.

Card No.

Village No.

Directions: Please record the responses by putting the appropriate number in the indicated box or boxes.

7

1. Sex: 1 = Male 2 = Female

8-9

2. Age: (to the nearest year)

10-11

3. Marital Status: 1 = Married 3 = Divorced
2 = Single 4 = Widowed

11-12

4. How many children under 18 years of age live in this household?

13-14

5. How many children over 18 years of age live in this household?

15

6. Anyone else living in this household?

1 = Yes 2 = No

If yes, give relationship to family.

16-17

7. Total number living in household including respondent.

18

8. How long have you lived in this village?

1 = Always

2 = 20 years or more

3 = 10-19 years

4 = 5-9 years

5 = 2-4 years

6 = less than
2 years

Section A

9. Now I'm going to read you a list of illnesses, and I would like you to tell me for each one whether or not you now have it.

IF NO: ASK "A"

A. Have you ever had yellow fever? Repeat this question for each illness.

1 = Has Now

3 = Never

2 = Not Now But Has Had

- | | | |
|----|---|--------------------------|
| 19 | Yellow fever | ☐ |
| 20 | Sinus trouble (stiffness with pain in the face) | ☐ |
| 21 | Tuberculosis | ☐ |
| 22 | Diarrhea | ☐ |
| 23 | Tetanus | ☐ |
| 24 | Malaria | ☐ |
| 25 | Dysentery | ☐ |
| 26 | Pneumonia | ☐ |
| 27 | Measles | ☐ |
| 28 | Parasites or worms | ☐ |

10. Now I'm going to read you a list of conditions and I would like you to tell me for each one if you have it.

1 = Yes

2 = No

- | | | |
|----|--|--------------------------|
| 29 | Do you have trouble with your eyes? | ☐ |
| 30 | Do you have trouble with your hearing? | ☐ |
| 31 | Do you have any bad teeth? | ☐ |
| 32 | Do you often have bad headaches? | ☐ |
| 33 | In the last year, have you coughed up blood? | ☐ |
| 34 | Do you ever have a pain in the chest? | ☐ |
| 35 | Do you have difficulty breathing? | ☐ |
| 36 | Do you often throw up or vomit? | ☐ |
| 37 | Have you begun to have diarrhea lately? | ☐ |
| 38 | Have you begun to be constipated lately? | ☐ |
| 39 | In the last year, have your bowel movements been bloody at times? | ☐ |
| 40 | In the last year, have you ever passed blood when urinating (passing water)? | ☐ |
| 41 | Do you often have back aches? | ☐ |
| 42 | Do you have trouble sleeping? | ☐ |

- 43 11. Would you say you are well satisfied, or not well satisfied with the present state of your health?

1 = Satisfied 3 = Don't Know
2 = Not Satisfied

☐

- 44 12. A. Would you say your own health, in general, is excellent, good, fair, or poor?

☐

- 45 B. IF MARRIED: how about the health of your (wife/husband), in general, would you say (his/her) health is excellent, good, fair, or poor?

☐

- 46 C. IF CHILDREN: and how about the health of your children living in this house?

☐

1 = Excellent 4 = Poor
2 = Good 5 = Don't Know
3 = Fair

- 47 13. A. Would you say you take the best possible care of your own health, or could you take better care of your health than you do?

☐

- 48 B. IF MARRIED: how about your (wife/husband)? Does (he/she) take the best possible care of (his/her) health now, or could (he/she) take better care?

☐

1 = Best Possible Care
2 = Could Do More
3 = Don't Know

- 49 14. In general, would you say people's chances of having good health today are better, worse, or about the same as they were 30 years ago?

☐

1 = Better 3 = About Same
2 = Worse 4 = Don't Know

- 50 15. If you had a chance to talk to a doctor for half an hour right now, at no cost to you, are there any things about your own health that you'd like to ask him?

☐

1 = Yes 2 = No 3 = Don't Know

IF YES: ASK "A" BELOW

A. What sort of things?

Section B

16. I'd like to ask you some questions now about particular illnesses.

(Please record number of correct causes and symptoms named).

1 = Five or More 4 = One
 2 = Three or More 5 = Unable to Name Any
 3 = Two

- 51 A. Do you know any of the causes of
 Diarrhea? What are they?
- 52 B. Do you know any of the causes of
 Malaria? What are they?
- 53 C. Do you know any of the signs and
 symptoms of Pneumonia? What are
 they?
- 54 D. Do you know any of the signs and
 symptoms of Measles? What are they?
- 55 E. Do you know any of the signs and
 symptoms of Tuberculosis? What are
 they?

17. Do you think it possible to catch any of the following illnesses from someone else?

1 = Possible 2 = Not Possible 3 = Don't Know

- 56 Diarrhea
- 57 Malaria
- 58 Pneumonia
- 59 Measles
- 60 Tuberculosis

Section C

18. Here are some opinion questions about health providers. I'd like to know whether you personally think they are true of most health providers or not. For example (READ A). Do you think that's true of most health providers or not. (Continue through list).

PHYSICIANS

NATIVE DOCTORS

1 = True of Most

1 = True of Most

2 = Not True

2 = Not True

3 = Don't Know

3 = Don't Know

- | | | |
|-------|---|----------------------|
| 61-62 | A. They don't give you a chance to tell them exactly what your trouble is. | <input type="text"/> |
| 63-64 | B. They don't take enough personal interest in you. | <input type="text"/> |
| 65-66 | C. They give quite a bit of their time free to people who need it. | <input type="text"/> |
| 67-68 | D. They will tell you frankly they don't know what your trouble is. | <input type="text"/> |
| 69-70 | E. They like to give you medicine even if you don't need it. | <input type="text"/> |
| 71-72 | F. They don't tell you enough about your condition. | <input type="text"/> |
| 73-74 | G. They tell you there's nothing much wrong with you when you know there is. | <input type="text"/> |
| 75-76 | H. They make you wait entirely too long when you try to see them in their office or clinic. | <input type="text"/> |

19. Do you think health providers should have the same fees for all, or should they charge people according to their income?

1 = Yes 2 = No 3 = Don't Know

- | | | |
|----|-------------------|----------------------|
| 77 | A. PHYSICIANS | <input type="text"/> |
| 78 | B. NATIVE DOCTORS | <input type="text"/> |

20. Well, under medical care would you say that doctor fees generally are much too high, a little too high, or about where they should be? Repeat for each item below.

1 = Much Too High 3 = About Right
2 = A Little Too High 4 = Don't Know

79

A. Doctor's fees generally.

80

B. How about hospital charges? Sheet
No.C. Cost of prescriptions at drug stores?

21. Now here is a list of reasons that people sometimes give for not seeing a doctor when perhaps they should.

Thinking back over you own life--which of these reasons have ever kept you from seeing a doctor when perhaps you should have.

1 = Yes 2 = No

5

A. I didn't have any way to get to the doctor's office.

6

B. Doctors charge too much.

7

C. It might be painful; the doctor might hurt me.

8

D. I was too busy to see a doctor; I didn't have time.

9

E. I didn't think the doctor could help me.

10

F. The doctor's office was too far away.

22. Now here are some conditions that people sometimes complain about. I'd like you to tell me which of these conditions you think a person should see a doctor about right away; which ones a person should see a native doctor about right away; which ones a person should take care of himself, unless they keep up or get worse; and which ones a person shouldn't bother about because they're not important.

1 = See Doctor 4 = Shouldn't Bother
2 = See Native Doctor 5 = Don't Know
3 = Care for Self

11

A. Cough for several weeks.

12

B. Constipation for a week.

13

C. Back ache fairly often.

14

D. Coughing up blood.

15 E. Headaches a whole lot. ☐

16 F. Pain in chest a lot. ☐

17 G. Diarrhea ☐

18 H. Measles ☐

19 I. Tuberculosis ☐

20 J. Tetanus ☐

21 K. Pneumonia ☐

22 L. Dysentery ☐

23 M. Malaria ☐

24 23. DO YOU THINK ENOUGH IS BEING DONE IN THIS
COUNTRY TO PROVIDE MEDICAL CARE TO PEOPLE
WHO DON'T HAVE MUCH MONEY? ☐

1 = Yes 2 = No 3 = Don't Know

25 24. A. How about radio programs dealing with
health or medicine? Do you know of
any such programs on the radio? ☐

1 = Yes 2 = No

26 B. Do you see any need for radio
programs on health? ☐

1 = Yes 2 = No

APPENDIX B

INTERVIEWERS

INTERVIEWERS

Dele Alohan, Health Superintendent

Lewis Osagie, Health Superintendent

Joseph Imadiyi, Health Superintendent in Training

Noghayin Aghedo, Health Superintendent in Training

Alex Idumwonyi, Student

APPENDIX C

CORRESPONDENCE

Department of Health Education
304 293-3903/2482

1156 Agricultural Sciences Building
College of Human Resources and Education
Morgantown, West Virginia
26506



West Virginia
University

October 11, 1983

Collins Airhihenbua
1011 Laurel Ave., Apt. 623
Knoxville, TN 37916

Dear Collins:

Thank you for asking my permission to use the survey instrument that I developed in 1971 to complete my doctoral dissertation. You have my full permission to use any part or all of the instrument in your research in Nigeria. I would request that you provide me with a copy of your completed research, probably in the form of your dissertation.

Good luck. Please give Dr. Wallace and the faculty my warmest regards.

Sincerely yours, .

Bill Carlton
Bill Carlton, Ed.D.
Professor and Coordinator
of Health Studies

BC:1a1

cc: Dr. Bill Wallace

VITA

Collins Ogbemudia Airhihenbuwa was born in Benin City, Bendel State, Nigeria, July 16, 1956. He attended elementary school at B.D.C. School Number 4, Benin City. Upon completion, he went to Eghosa Grammar School for his high school education. After completing, he worked for two years with the Nigeria Post and Telecommunications, Benin City. He then proceeded to the United States of America in January 1977 where he spent a semester at Chowan College, Murfreesboro, North Carolina. He then transferred to Tennessee State University, Nashville, Tennessee.

He received his Bachelor of Science degree, 1980, in Health Care Administration and Planning from Tennessee State University and Meharry Medical College (joint program), both in Nashville, Tennessee. He proceeded to The University of Tennessee, Knoxville, for his Master of Public Health degree, 1981, with a concentration in Planning and Administration. He entered the Doctor of Philosophy program in Health Education in the fall of 1981. From 1982 to 1983, while working on his doctorate, Collins served as a doctoral teaching assistant in the Division of Health and Safety. He was the treasurer for the Alpha Mu Chapter of Eta Sigma Gamma from 1982 to 1983. He earned his Doctor of Philosophy degree in Health Education in Decembr 1983.

Collins is married to Robie Denise Airhihenbuwa and a father of two sons, Lee Jeffrey and Iyare Chandler.