UNIVERSITY OF IBADAN

THIS THESIS SUBMITTED BY

Dr. Adepoju Muritala ADEJUMO

WAS ACCEPTED IN PARTIAL FULFILMENT
OF THE REQUIREMENTS FOR THE
DEGREE OF DOCTOR OF PHILOSOPHY
IN THE FACULTY OF EDUCATION
OF THIS UNIVERSITY
THE EFFECTIVE DATE OF THE AWARD IS

18th October, 1985

26/2/86
DATE

SECRETARY
POSTGRADUATE SCHOOL

SECRETARY,
POSTGRADUATE SCHOOL
UNIVERSITY OF IBADAN.

URBANIZATION AND DEMOGRAPHIC FACTORS AS INDICES OF HEALTH BEHAVIOUR OF RURAL AND URBAN COMMUNITIES IN OYO STATE, NIGERIA.

BY

MURITALA ADEPOJU ADEJUMO
B.Sc. Education (Physical Education) Ife,
M.Ed. (Physical and Health Education) Ibadan.

A thesis in the Department of Physical and Health Education submitted to the Faculty of Education in partial fulfilment of the requirements:

For the degree of

DOCTOR OF PHILOSOPHY
UNIVERSITY OF IBADAN

June, 1985.

ABSTRACT

The focus of this thesis was to find out the influence of urbanisation and demographic factors on the health behaviour of the rural and urban communities in Oyo State, Nigeria.

A knowledge of the local situation on the influence of urbanisation and demographic factors was lacking. The study provided a vital link between foreign researches in this direction and the local situation. Besides, the study provided an insight into the health behaviour pattern of rural and urban dwellers. Thus health planners would be aided in designing programmes to tackle specific health problems in varying cultures from the information in this study.

The study was limited to three urban towns in different stages of industrial and population growth. They were Eruwa (pre-industrial town), Osogbo (industrial or urban city) and Ibadan (metropolitan).

Two sets of rural settlements were also used for this study. They were the remote rural communities which include Ogboro, Tewure and Imini. The second group was the urban

fringed rural settlements which also include Oko, Kuta and Erimo.

The health behaviour characteristics investigated were avenues sought for treatment during illness, drug use, and nutrition. The demographic factors that were examined as to their influence on the respondents in this study were education, income, age, sex and marital status.

983 subjects were selected for this study. The method of selection was based on different proportional representation of each study area in relation to their population.

The main research tool in this study was questionnaire. It was designed by the researcher with the assistance of the project supervisor.

Pilot testing of the questionnaire was carried out to correct ambiguity in the questionnaire and to improve on the qualities of measurement and discriminability of the questionnaire.

The sampling technique employed in the distribution of the questionnaire was clustered sampling.

The main statistical tool used in the analysis was chisquare and percentages.

The conclusions from the study were that urbanisation and demographic factors influenced the health behaviour of the respondents in respect of avenues

for their massive support and their sleepless nights in ensuring the timely completion of this work.

(h) Mr. D. O. Olaofe for typing this manuscript.

M. A. ADEJUMO,
Department of Physical and
Health Education,
University of Ibadan.

June, 1985.

ACKNOWLEDGEMENT

The successful completion of this thesis is consequent to the genuine advice and valuable assistance from well wishers. I wish to place on record the immense contribution of the following people:

(a) Dr. C. O. Udoh, my supervisor, for lavishing his time and energy in ensuring that this work was successfully completed and for his fatherly attitude, advice and care for me and my family.

(b) Dr. L. O. Amusa, for his useful advice and guidance.

(c) Dr. James Ajala, for his constructive criticisms and guidance.

(d) Dr. A. S. Gbadegesin, for his criticisms, suggestions and moral support.

(e) Dr. V. C. Igbanugo for her valuable suggestions.

(f) Messers L. A. Ajani, M. A. Odesanmi and A. O. Oladunmoye, for their co-operation, understanding and suggestions.

(g) The Physical Education students of Oyo State College of Education, St. Andrew's Campus, Oyo

sought for treatment, drug use and nutrition.

Urbanisation was found to play a more significant role than demographic factors in influencing the health behaviour of the subjects investigated.

The recommendations suggested in this study were in three parts, namely (a) that essential health facilities, personnel and programmes should be provided (b) that health education and (c) motivation and if possible force to ensure the practice of desirable health habits should be provided.

DEDICATION

To God for His loving kindness.

To my father, whose ambition is to see me achieve this intellectual height in his life time.

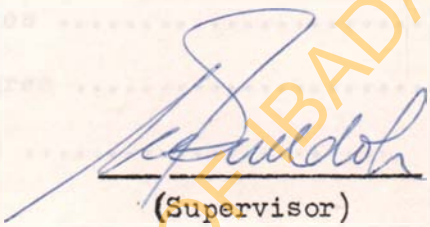
To my mother for her love to her only son.

To my wife, Nma, for her love and perseverance and

To Shola, Tayo and Tola our future hope.

CERTIFICATION

I certify that this project was carried out by Mr. Muritala Adepoju Adejumo in the Department of Physical and Health Education, University of Ibadan.



(Supervisor)

C. O. Udoh, Ph.D. (Ohio State), B.Sc., M.A. (Western Michigan) D.L.C., (Loughborough), S.C.P.E., C.P.E. (Nottingham).

Acting Head of the Department of Physical and Health Education, Faculty of Education, University of Ibadan, Ibadan, Nigeria.

TABLE OF CONTENTS - PAGES

CHAPTER TWO

REVIEW OF RELATED LITERATURE

CHAPTER THREE

METHOD AND PROCEDURE

LIST OF TABLES PAGES

LIST OF FIGURES PAGES

LIST OF MAPS

PAGES

C H A P T E R O N E

INTRODUCTION

Any reduction in health status endangers capacity for work and therefore productivity. Comlan and Quonum (1979) pointed out that in areas where malaria is endemic 30% to 40% of workers may be incapacitated by this disease at any time of the year. This disease affects workers' productivity due to absence from work or diminishes work capacity. It has also been shown that mortality rate due to malaria is very high. Malaria thus has an adverse effect on the socio-economic life of the nation. Eradicating malaria could not only free man from the diseases and its dangers, but could also improve the land, increase work output and encourage education, which are all factors contributing to progress. Anderson (1973) opined that man's knowledge of sanitation is both extensive and intensive, yet we have diseases resulting from lack of proper sanitation. The need actually is that of applying the knowledge of sanitation we already possess. Furthermore, he was of the

opinion that if our technical knowledge of water, milk, food, air and soil sanitation were fully applied, such diseases as dysentery, typhoid, salmonellosis and cholera would be of academic rather than clinical interest.

As improvement in man's sanitary environment is mainly responsible for progress in the control of contagious diseases, so man's resistance to change of his habits and customs presents the single obstacle which slows down his socio-economic progress (Owen 1973). This situation applies to all people and all countries. It is as difficult to persuade man to use the privy as to stop smoking or to have sexual intercourse with contraceptives for this involves breaking down his natural habits.

Ikponwosa (1984) is of the opinion that most of our current health problems are amendable to health education measure, thus, they require not only hospital and maternity blocks, medicines, and treatment, but also modifications in behaviour. However, according to him, our effort so far have been the printing of posters and dissemination of didactic health information through the mass media. The notion here is that people will improve their attitude towards their health and develop respect for good health if exposed to factual information. But

achieving and maintaining sound health depends not only on the knowledgeable public but on a highly motivated one. Many citizens persist in undesirable health behaviour because they feel that certain factors make the alternatives difficult or inaccessible.

Public health awareness should of necessity include researches and programmes aimed at understanding and influencing human behaviour. Efforts of health educators will be more successful if pertinent researches in psychology, sociology, anthropology, geography, medicine and other related disciplines are allowed to bear on public health measures, especially in the area of public health education. In order to eliminate the problems of lack of awareness; lack of concern and apathy on the part of our citizens, a critical analysis needs to be directed on the society behavioural pattern. The outcome of this analysis should be the central concern of public health programmes geared toward influencing individual and collective behaviour.

There is no doubt that any programme towards health improvement, be it at the village, urban district level, or at the national level has no chance of success if it is not related to the eco-culture and if it is not planned with the consumers. A health alternative can only be

grounded on what people themselves think and do or might do about their own health (African Environment, 1975).

Evidence for a rural culture as distinctive set of beliefs and values is highly inconclusive. A number of studies (Paul, 1966, Van Es and Brown, 1974, etc.) have suggested that there are no significant rural urban cultural differences in attitude to religion and sex matters to mention but few. At the same time others, (Fisher, 1978, Miller and Grader, 1979) indicated the opposite, that there are significant rural and urban differences. There are yet some authors who present ambivalent findings. For example, Ellenbogen and Lowe (1968) indicated significant differences between the urban and rural dwellers' behaviour towards immunization, physical examination, health insurance and use of physician for preventive service in their study carried out in New York City and the rural sub-urban. They however, noted that there is no difference between the urban and rural samples in the use of physician for curative services.

Miller and Luloff (1981) indicated that personal demographic features such as religion, income, and age may have more influence on one's behaviour more than a person's place of residence be it in urban or rual. They

also pointed out that where one lived during adolescent years may also be important in explaining attitude structures.

Gilbert, (1982) mentioned that some researchers claim that rural and urban are vague and contradictory and their use be discontinued for scientific work is unjustifiable on the ground that some researchers focus on cities, while others look more to the countryside, the spatial totality been too much to grasp all at once. Besides the problems of rural and urban are varied. The researches mentioned so far are largely non-Nigerian based. It is worthwhile to research on the rural and urban communities health behaviour pattern in the local situation to see how far it agrees with literature as means of identifying appropriate intervention models which can be employed to promote desirable health behaviour in Nigerian environment. The purpose of this study is therefore to investigate the influence of urbanisation and demographic factors on the health behaviour of the rural and urban dwellers in Oyo State.

STATEMENT OF THE PROBLEM

This research was designed to find out the influence of urbanisation and demographic factors on the health behaviour of rural and urban communities in Oyo State. This study also looked into the similarities and dis-similarities in the health behaviour of the rural and urban inhabitants in respect of avenues sought for treatment during ill health, use of drugs and nutritional practices. The influence of education, income, age, sex and marital status on health behaviour of the urban and rural dwellers were as well examined in this research.

Specifically, this study was designed to find answers to the following problems:

i. Do the remote rural dwellers differ with urban fringed rural dwellers in matters relating to health behaviour?

ii. Is there any difference in the health behaviour of the pre-industrial, industrial and metropolitan urban dwellers?

iii. Does the health behaviour of rural dwellers differ from that of the urban dwellers?

iv. Is education a factor influencing health

behaviour?

v. Will income influence health behaviour?

vi. Does age influence health behaviour?

vii. Do the male compare with the female in matters relating to health behaviour?

viii. Is there any difference in the health behaviour of the married and unmarried people?

SIGNIFICANCE OF THE STUDY

Although smoking, drinking, obesity, irregular meals, physical inactivity and lack of sleep are known to cause earlier death among those who indulge in even two or three of these habits, many people refuse to change behaviours that are obviously hazardous to their health, (Belloc and Broslow, 1972). A reciprocal relationship exists between health and the general social level of the nation. The promotion of health has a beneficial effect upon the economy of a nation which in turn will affect the nation's cultural and social advancement. Communities should therefore provide adequate medical and health services and facilities to contribute to the life expectancy of its

citizens. However, the actual contribution of health facilities to the quality of life of the communities will depend upon the understanding citizens have of these facilities and the extent to which they utilise the medical and health facilities in their communities (Anderson, 1973).

The world-wide efforts in promotion of health is now geared towards researches and programmes which are aimed at understanding and influencing human behaviour as it is now accepted that successful health programmes should take into consideration what people themselves think and do, or might do about their own health (African Environment, 1975).

If this research when completed is put in the cooler, the significance is no more than an academic exercise as it is true of bulk of researches. But if an effort is made to send the findings to appropriate governmental quarters, health agencies and if health educators are made to be aware of the findings through publication in reknown journals, which the researcher hopes to do, lots will be achieved through the findings in this study.

This research is appropriate in that it indicates in a Nigerian situation how the rural and urban inhabitants health behaviour differ or resemble each other and therefore

identifies the health behaviour problems that are general and specific to each culture. There is no doubt that if our health planners have this knowledge it will pave the way for better planning to tackle specific health problems in varying culture. It will also aid health educators and health planners to promote desirable health behaviour and discourage or eliminate undesirable ones among the citizens.

Necessary insight into provision for effective utilisation of health facilities could be gained through this study by the health planners who happen to consider the findings in this study.

The study offers an opportunity for evaluation and appraisal of the health behaviour of Nigeria citizen, a knowledge which is vital for improving the Nigerian health care delivery system.

Lastly, the rigours of undertaking this research is of significant mental exercise and exhilarating experience for the researcher.

DELIMITATION OF THE STUDY

This study was limited to three urban towns of different stages of industrial and population growth. These were Eruwa (pre-industrial town or urban locality). Osogbo (industrial or urban city) and Ibadan (metropolitan or big city).

The study was also limited to two sets of rural settlements which were classified as to their distance to the urban centres. These were Oko, Kuta and Erimo otherwise regarded as "Urban fringed Rural Settlements" because of their nearness to the following respective urban towns, Ejigbo, Iwo and Ilesha. The other set of rural settlements were Ogboro, Imini and Tewure also classified as "Remote Rural Settlements" because of their remote distance from urban centres. The scope of the health behaviour characteristics investigated were avenues sought for treatment during illness, drug use and nutrition behaviour. The investigation of factors that affect the selected behaviour characteristics were also limited to education, income, age, sex and marital status

of the subjects.

The subjects for this study were 983 dwellers and were selected on the basis of population ratio. The subjects were also adults of 18 years of age and above. The reason for the age limitation is that the research instrument was designed mainly for adult as the health behaviour patterns of the entire age characteristics were not considered in this study.

The research instrument in this study was mainly questionnaire, however, structured interview was employed as means of obtaining facts from the illiterate subjects.

The analysis of findings in this study was confined to identifying how urbanisation and demographic factors separately influenced health behaviour. No interlacing relationship as to the combined influence of urbanisation and demographic factors was provided. Also the main statistical tool was chisquare. The reasons for these two delimitations were enunciated in chapter three, captioned method and procedure.

LIMITATION OF THE STUDY

This work was limited by the paucity of literature on the health behaviour characteristics investigated as they relate to urbanisation and demographic factors.

The lean financial position of the researcher and lack of time posed serious limitation on the researcher since the nine locations selected were scattered all over the state.

The problems placed generally on the use of questionnaire or self report in behavioural investigation were also sources of limitation in this study. People were generally not honest in their responses especially when the issue touched on some socially and legally disapproved behaviour like use of dangerous drugs and patronage of quack doctors. Many responses were probably affected by loss of memory.

The low level of awareness of implication of conducting researches in our society affected the responses obtained from the subjects. Many subjects asked for money before filling the questionnaire. Many refused on the ground of suspecting the researcher to be an intelligent agent and this behaviour was common among the people in the rural areas who probably harboured foreigners from

neighbouring West African Countries as farm labourers. The time of this research coincided with the time the illegal aliens were expelled from Nigeria. Many illiterate people usually refused to answer the questionnaire except when educated member of their family gave them go ahead. Similarly, many women refused to answer except in the presence of their husbands or adult male relations.

In the rural areas and among the illiterate people the subjects usually referred to the compound leader as their mouth piece whose opinion on the questionnaire was theirs and therefore they did not see the need to interview any person other than the compound leader.

Lack of privacy in responding to the questionnaire might have therefore tremendously affected the results obtained.

RESEARCH HYPOTHESES

Main Hypotheses

The two main hypotheses for this study were that

(a) Urbanisation would not influence the health behaviour of rural and urban dwellers in Oyo State with regards to avenues sought for treatment in times of ill health, drug use and nutrition behaviour.

(b) There would be no significant difference in health behaviour of rural and urban dwellers with regard to demographic factors.

Sub Hypotheses

The sub hypotheses were as follow:

(i) There would be no difference in health behaviour between the rural and urban dwellers

(ii) There would be no difference in the health behaviour within the rural dwellers.

(iii) There would be no difference in the health behaviour within the urban dwellers.

(iv) Education would not influence the health behaviour of the rural and urban dwellers.

(v) Income would not influence the health behaviour of the rural and urban dwellers.

(vi) Age would not influence the health behaviour of the rural and urban dwellers.

(vii) Sex would not influence the health behaviour of the rural and urban dwellers.

(viii) Marital status would not influence the health behaviour of the rural and urban dwellers.

DEFINITION OF TERMS

In this type of study it is essential to give the defination of words as used in the context of the project since some words may carry different meanings.

Adult - Adult is refered to as a fully grown up person by advanced learner's dictionary. Adult in Nigeria legal context means a person who is 18 years of age and above. Adult in this study refers to somebody who is matured and is of 18 years of age and above. Influence of age differences on health behaviour was investigated in this study, it is therefore appropriate to further classify age groupings into

(a) young adult (18 - 25 years)

(b) middle adult (26 - 44 years) and

(c) old adult (45 years and above).

Demographic factors:- Demographic factors are those characteristics that indicate the condition of the community, (Advanced Learner's Dictionary). In this study, such factors investigated were sex, age, education, income and marital status.

High income group:- High income group are those who earn three thousand naira and above per annum or equivalence of salary 07 and above.

Low income group:- Low income group are those who earn less than three thousand naira per annum or the equivalent of salary level 01 to 06.

Rural Communities:- Rural communities are those settlement with population aggregates varying from 1,000 to 5,000 (Saunders 1977). A more detailed and acceptable analysis of rural community is provided by Miller and Luloff (1981). The notion rurality is described as encompassing ecological occupational and socio-cultural dimension. Miller and Luloff (1981) described the ecology of rural community as characterised by scanty population which is relatively isolated from the influence of urban centres. They also describe the occupation of rural communities as comprising mainly of agricultural production. The socio-cultural dimension is a construct which is relative. The rural culture is potrayed as being provincial, socially conservative, slow changing, traditional and intolerance of heterodox ideas. In this study rural

communities are those whose means of livelihood is mainly agricultural production and those whose population concentration do not reach 20,000 as pointed out by Breeze (1966). Rural communities selected for this study are therefore Oko, Kuta, Erimo, Ogboro, Imini and Tewure.

Remote Rural Communities:- Remote rural communities indicate rural settlements that are more than twenty kilometers from the nearest urban centres and are not linked with the urban centres with intercity roads. Remote rural communities are likely to be more relatively isolated from the influence of urban centres than those rural settlements that are near to urban centres. In this study the remote rural settlements selected are Ogboro, Imini and Tewure.

Urban Communities:- Urban communities indicate place of 20,000 or more inhabitants. The underlying assumption is that it is until a population of 20,000 is reached before the characteristic of urban living are likely to appear. United Nations Economic Commission for Africa (ECA)

categorises urban location into three groups:
(a) 20,000 - 100,000 (urban localities)
(b) 100,000 - 500,000 (cities) and
(c) 500,000 and over (big cities).
Hanser also classified urban location into three groups i.e. (a) pre-industrial (b) industrial and (c) metropolitan location. The E.C.A. and Hanser classifications are used in this study, thus the urban locations selected are:

i. Eruwa (urban locality/pre-industrial location).
ii. Osogbo (city/industrial location)
iii. Ibadan (big city/metropolitan location)

Urban Fringed Rural Settlements:- Urban fringed rural settlements are those rural settlements which are not more than ten kilometers from urban centres and are also linked to urban centres with intercity roads.

Ajaegbu (1968) and Mabogunje (1968) have both indicated that adjacent rural settlements to urban centres are considerably influenced by urban centres. The urban fringed rural settlements selected in this study are Oko (via Ejigbo) and Erimo (via Ilesa).

Urbanisation:- Urbanisation in this study refers to a process by which the rural places become urban with a corresponding change in behaviour and occupation of the rural communities.

C H A P T E R T W O

REVIEW OF RELATED LITERATURE

The review of related literature to this investigation are examined with the respect to the following:

(a) The concept of behaviour

(b) The concept of communities

(c) Avenues sought for treatment

(d) Drug use

(e) Nutrition behaviour

THE CONCEPT OF BEHAVIOUR

The importance of the role of behaviour in shaping our health status cannot be overplayed. Stanislav and Sidney (1966) are of the opinion that health behaviour is any activity undertaken by a person believing himself to be healthy for the purpose of preventing disease or detecting it in an asymptomatic age. Their opinion seems to touch on the desirable aspect of health behaviour. Often man engages in many activities or refuses to engage

in many activities to which he fully understands the consequence to be a deterioration in his health status. Ross and Mico (1980) supported this with their assertion that in general, all leading causes of death have behaviour implications. Heart diseases, venereal diseases, lung cancer and lots of other diseases have been indicated as resulting from poor health behaviour. They categorised theories relating to individual behaviour into nine main categories. They are the personality, developmental, perception, motivation, learning, experiential, attitude change, problem-solving and creativity and group dynamics theories. Expantiating further on these theories, they mentioned that personality theory is important in exploring the effects of heredity, environment and self-aspects of personality in people's basic capacities. In developmental theory the patterning of development throughout the life cycle tells how growth occurs under combined internal and external forces. The importance of perception theory is seen in classifying why individuals accept or reject health education messages, depending upon their selective perception processes. Emotion and motivation theory help to characterise an individual's humanness, the feelings that must be expressed and needs that must be met. Learning theory explains how

learning takes place in various settings. Experiential learning theory views learning as a four stage cycle that includes concrete experience, observation and reflection, formation of abstract concepts and generalizations and testing the implication of concepts in new situations. Attitude change theory provides knowledge of how attitudes shape individual behaviour and how attitudes formed can be changed. Problem-solving and creativity theory illuminate how people approach a problem, develop idea, work on it, and decide which solution to choose. Lastly, groups dynamics theory illustrates how people behave in groups and how groups themselves influence individual behaviour.

All these theories ranging from the physiological origins of personality development to the group dynamics theory have relevance to health education. Research has shown, for example that, people join groups as one way of satisfying individual needs. If a need exists for group affiliation, if group activities are attractive and rewarding, and if the individual values the group's goals, the likelihood is great that the group will influence the individual's behaviour, for group interaction has a powerful potential for inducting individual change (Cart wright and Zander, 1967).

Asch (1964) however, pointed out that group interaction tends to produce group norms, deviations from which can cause members to persuade the recalcitrant person to conform or to reject him altogether. He also mentioned that an individual is likely to conform to group opinion. When often members decline to general decision then, group interaction must meet both individual and group needs if full participation by members is to continue. A study of group composition indicates that individuals who are affirmatively oriented toward other people enhance group morale, interaction, and cohesion, whereas unconventional, unpredicable or anxious persons tend to inhibit effective group functioning (Haythorn, 1968).

Frank and Anderson (1977) indicated that factors ranging from the physical size and setting of groups to the nature of communication networks affect group performance and that participation diminish as a group increases in size. Shaw (1967) also indicated that in complex situations group problem-solving tends to be more effective than individual problem-solving, but groups generally take more time to complete tasks than do individuals working alone.

The process of behavioural change is so complex that it cannot be explained adequately except by integrating several theories and concepts.

The integration of such diverse elements into a collective strategy to help produce a desired result is called a model (Ross and Mico, 1980). Three of such models that explain process of behavioural change in health are the health belief model, the personal-choice behaviour model and the typology of behavioural leverage points.

The health belief model was developed in 1950, to explain preventive health behaviour and it focussed on the relationship of health behaviour to utilisation of health services (Rosenstock, 1974). This model is based on three primary dimensions namely: (i) the individual's readiness to comply with treatment, (ii) the motivating and enabling forces that determine what the individual will do and (iii) the compliance behaviours actually exhibited. The readiness is seen to depend on three sets of related variables: belief in a vulnerability of illness and estimations of the degree of threat, motives to reduce the threat with related goals for good health and belief that compliance with recommended behaviours will reduce the threat and lead toward good health. Modifying and enabling factors include individual's personal characteristics, the nature and extent of the changes and costs that are likely to be involved, the nature and extent of interactions with health personnel, the feelings or attitudes

attached to those interactions and the effect on the individual of previous experience and social pressure. These factors are believed to determine the likelihood of compliance with recommended behaviours. The personal choice model arose from the studies on smoking habits and it indentifies four stages in the movement towards individual change: initiation, establishment, maintenance and cessation (Horn, 1966). The initiation may be derived from curiosity, the availability of cigarettes, the likelihood of poor approval or a desire to rebel against adult authority. Establishment of smoking on a continuing basis may be influenced by expanded opportunities for social interaction, pleasurable feelings associated with relaxation and tension, identificating with popular personalities on cigarettes advertisement and individual's internal conflict to rebel against the authority. Smoking maintenance is usually the result of a habit or dependency. Whether cessation occurs will depend upon such factors as a perception of the psychological usefulness of smoking, of the dangers of continued smoking and the environmental forces that support efforts towards change.

The typology of behavioural leverage points theory is originally developed to aid in the reduction of cardiovascular risk. Stokol who developed this theory

categorised the interactions on two dimensions. Firstly, the intervals of social influence which consist of the early socialisation period, the adult precoronary period and the adult post coronary period, secondly the levels of intervention which are also of two folds namely the micro or inter-personal or family relationship level and macro or social and community level.

Factors influencing Health behaviour

Educational level, income, age, sex, and marital status have all been indicated as factors that influence the individual and group health behaviours.

Young (1966) and Oyediran (1974) indicated that those people with high educational level tend to accept the use of modern health facilities while the corresponding use of those with low educatioational status is low. Anderson (1973) similarly indicated that the best educated segments of our population enjoy the highest level of health and the greatest life expectancy. These people have an appreciation of the importance of health and have a knowledge of what they can do on behalf of their own health. Most importantly they utilise medical facilities to the best advantage.

High income group tend to prefer modern hospital treatment and they fully utilise this avenue for treatment

during ill health (Adejumo 1982, Frazier et al 1977 and Edington et al 1979). Najman (1981), however failed to obtain any strong association between socio-economic status, and health care behaviour in Australian setting.

Age was found to be a factor influencing health behaviour by Luft (1966), Vobecky, Kelly and Mauna (1972), Nemat and Krause (1973). Adejumo (1982) also indicated that more aged people succumb to traditional concept of disease causation and traditional form of treatment than the young and middle age people. Anderson (1973) indicated that alcohol and drug abuse are more prevalent among the adolescent than the adults. Sex was indicated as influencing health behaviour by Walker Jr. (1979) and also Adejumo (1982) indicated that women are likely to succumb to the unnatural influences on diseases than men. In an area where a woman's personal fears and hopes are so deeply involved, Hackett (1981) opined that it is likely that she will draw more re-assurance from familiar adviser and from supplicating the gods than from the paraphernalia of a gynaecological clinic.

Many studies have indicated that marriage is associated with good health, less risk taking, proper diet and prompt attention to ill health problems (Brooks and Brooks, 1979).

THE CONCEPT OF COMMUNITIES

Chapman (1982) opined that communities are not just groups of people living together, indeed although all communities may be described as societies not all societies are communities. The word community implies having something in common. Chapman (1982) mentioned that in the original use of the word and as indeed in its present use, 'Commune', means the sharing of goods, interest and values in a face to face situation. Anderson (1973) however considered a community in terms of a social unit, in which there is a transaction of common life among the people composing the unit. He further reitrated that a community must be thought of in terms of a social group, functioning with reasonable harmony in promoting the many common interest inherent in society and that it may exist in a fairly limited territory, but more and more the community is characterised by a constantly enlarging geographic expanse.

Sanders (1977) mentioned that scientists have been interested in the unique factors creating rural-urban differences and similarities as well as in the process by which rural areas become more like urban areas (urbanisation) or how cities are subjected to rural influence with the

influx of many farm people in a relatively short period of time (Peasantisation of the city). Sanders (1977) identified three main approaches of the scientist as follows:

(a) The dichotomous approach: The study here is to view the rural community and the city as two distinct ways of life that mix like oil and water. Those who hold this view often champion one against the other. They may be loyal agrarians who see in the countryside all of the virtues which have made the nation great or upon which its future greatness depends. They may be cosmopolitans who view rural areas as unsophisticated illiterates, poverty-ridden, conservative populations who are so ground down by toil that they have no time for cultured pursuits possible in the city.

(b) The continuum approach: The social scientists readily recognise that there are stages in-between the extreme or polar types where actual social units would fall if classified according to the typological criteria. In this sense, the familistic - contractual and sacred-secular typologies may be viewed as continua. The process by which one type changes into the other type only recognises the existence of a continuum along the social units.

(c) The symbiotic approach: To satisfactorily describe the emerging relationships between the rural community and the city we need to go beyond the dichotomy or even the continuum. We need to see how the two types join in a symbiotic relationship as part of a national society.

Symbiosis is used here in the sense of a mutual interdependence brought about by the operation of impersonal ecological, economic or other forces. Rather than seeing the village and city as typological opposite or even viewing actual communities as closer to one type than the other, we need to concentrate upon their inter-relationship in contemporary life.

Rural Communities

Some use occupation to describe the members of rural society i.e. engaging mainly in agriculture.

But according to Sanders (1977) a more widely accepted definition of rural is the size and density of settlement. Population aggregates varying from 1,000 to 5,000 are set by different countries as the cut-off points between rural and non-rural. Chapman (1982) mentioned that in rural community each individual fills a multiplicity of roles and

therefore there is a much greater intermeshing of life than in the town. The milkman may also be the church sides man, captain of village cricket or solo tenor in the local operatic society. He will probably be the son of a local farmer married to the daughter of the licensee of the village pub and brother of the local school mistress. Patterns of interaction and reciprocity are therefore complex and compelling. Rural people provided the others with food and fibre, with crops for expert and with a sense of continuity with the past on which new nations must be built (Sanders 1977). A more detailed and acceptable analysis of rural community is provided by Miller and Luloff (1981). According to them the notion of rurality encompasses an ecological, an occupational, and a socio-cultural dimension. The occupational dimension has historically been envisioned as a rather well defined attribute of individuals. Specifically 'rural' refers to a population aggregate that derived its livelihood from agricultural production or at best from the extractive industries such as mining, fishing, and forestry.

The ecological component of the 'rural triumvirate' is concerned with the spatial apportionment of population. In this context rural area is characterised by a population that is small, unconcentrated and relatively isolated from

the influence of a large metropolitan centres.

The socio-cultural dimension is a construct which is relative. Bulk of literature portrays rural culture as being provincial, socially conservative, slow changing, traditional, and somewhat fatalistic. In addition the stereotyped rural value system tends to stress independence, honesty and religiousity as well as prejudices, ethnic centricity and intolerance of heterodox ideas.

At the polar extreme, an urban culture is characterised by a set of attitudes and values that fit reasonably well the theoretical conception of the 'modern man'. Integral to this urban syndrome are attitudes and values that stress an openness to new experiences, and abandonment of passivity and fatalism and an assertion of increasing independence from traditional authority figures. This 'modern' or urban psychic structure is also depicted as being more tolerant of deviant attitudes and behaviours in the areas of sexual morality, specifically attitudes towards premarital sex, abortion, homosexuality, divorce and racial, ethnic, religious and political differences.

Sanders (1977) identified three main processes by which the rural society becomes incorporated more fully into the larger society while maintaining many of its rural institutions.

(a) Material achievements: When they identify with urban or modern living, these include better housing, sanitary facilities, suitable clothing, improved nutrition and more convenient household appliances.

(b) Attitudinal changes: Here some of the people themselves are the focus e.g. - a peasant thinking, moving away from sacred or traditional to the rational or scientific point of view.

(c) Social Network linkages: Here the rural society becomes assimilated or amalgamated with urban society.

Urban Fringed Rural Settlements

Researchers have indicated the impact of urban settlement on adjacent rural settlement. Ajaegbu (1968) studied the changing ways in which the rural inhabitants of creek and lagoon areas of Epe and Ikeja are making use of their environment as they feel the influence of and respond to the increase in local demands in Lagos urban centre. He found out that Lagos has modified the economic growth of the neighbouring areas i.e. there is an overall increase in productivity and commercialisation and there is a shift in many places from fishing to farming as the predominant economic activities. Also there is a shift from export

crops farming to food crops farming.

Mabogunje (1968) similarly found out that the people of Moniya and Ojoo in Ibadan sub-urb have recently changed to poultry, farming and saw-milling as their main occupation to meet the demand of the urban dwellers in Ibadan city. Henry (1981) also found out that the deficiencies of a rural town would be filled by the near-by town if it is located near the urban town, i.e. medical, college education, library, cinemas etc will be enjoyed by the members of rural community near an urban town with such facilities most especially if there is efficient transport system linking the two together.

Urban Communities

One change that is commonly associated with economic development is the growth of towns and cities and such urban growth is undoubtedly one of the most processes taking place in tropical Africa today. The rate of expansion of towns in this region is more rapid than in any other large region of the world (O'connor, 1978).

Urbanisation is the process of becoming urban, moving to cities, changing from agriculture to other pursuits common to cities and corresponding changing of behaviour patterns (Breeze, 1966). Because of national difference in

definition of Urban in various parts of the world it has generally been agreed that in comparing urbanisation among countries and regions, the word 'Urban' will be reserved for places of 20,000 or more inhabitants and that calculations indicating degrees of urbanisation will be based on places of 20,000 or more and places of 100,000 or more population. The underlying assumption here is that it is not until a population of 20,000 is reached that typical characteristics of urban living are likely to appear. Special interest is always directed to places with population of 100,000 or more as particularly good indicators of 'real' urbanisation (Breeze 1966).

The three categories of urban size identified by the United Nations Economic Commission for Africa (ECA) are urban localities (20,000 - 100,000) cities (100,000 - 500,000) and big cities over 500,000 inhabitants (Udo 1982).

O'Connor (1978) grouped urban cities in Africa into (a) Indigenous centres e.g. Ibadan (b) European - created centres such as Salisbury and (c) Hybrid or Intermediate centres such as Khartoum and Lagos. Pirenno classified urban cities into two major groups (a) Political - intellectual centres e.g. Delhi and Ibadan, and (b) Economics centres e.g. Bombay and Lagos. Similarly Singer had two classifications (a) Ortho-genetic and (b) hetero-

genetic. Orthogenetic are those cities that carry forward into systematic reflective dimensions an old culture - city of moral order. Heterogenetic are those creating original modes of thought that might have authority beyond or in conflict with old culture and civilisation - city of technical order. Hanser classified urban centres into three, namely: (a) the pre-industrial (b) industrial and (c) metropolitan (Breeze, 1966).

In his explanation of theories of urban structure Gillmon (1974) identified three best known theoretical models which are (i) the concentric zone theory (ii) the sector theory and (iii) the multiple nuclei theory.

The concentric theory model devised by Burgess in 1923 is based on the idea of concentric rings of different land uses surrounding the central business district (CBD). The arrangement is caused by rising land values toward the city centre, a result of competition between users for the most accessible locations. Only the most intensive users can afford to pay the high land values near the centre. The CBD is the zone of greatest accessibility and maximum attraction and is dominated by commercial uses. Surrounding it there is the zone of transition characterised by residential deterioration.

Sector theory of Hoyt in 1939 has its bases on the assumption that when different land uses have arisen near to the CBD, they grow outwards as sectors or wedges. Radial extension of zones is often focussed on arterial routeways, giving a linear arrangement. The attraction of location near a railway or canal may result in a manufacturing and ware housing sector.

Multiple nuclei theory developed by Harris and Ullman in 1945 is mainly concerned with showing how accessibility, land values and city growth affect the arrangement of zones. This theory recognises that in addition to outward development from the city centre, growth occurs around separate nuclei, which attract development and general traffic. Certain activities tend to choose particular locations, such as retailing at major route intersections, heavy manufacturing in port area, bulk storage facilities on cheap land and expensive housing on an attractive hillside. Once established, these land uses spread outwards in different direction, producing the cellular structure.

Urbanisation among Yoruba

Between 1900 and 1950, the population of the world living in cities with 20,000 or more inhabitants increased about 21.7 million to 50.2 million expanding twenty three

times in 150 years while the total population expanded about 2.6 times in the same period.

The most startling change in urban population is in newly developing countries i.e. between 1900 - 1950 the population living in cities of 100,000 or more in Asia amounted from an estimated 19.4 million to 105.6 million (a gain of 444 percent) and in Africa from 1.4 million to 105.6 million (a gain of 629 percent). Hilton (1964) claimed that one nineth of the people of Nigeria live in settlement of 10,000 and above. The Yoruba lived in city of substantial size ever before Europeans arrived in African continent.

Breeze (1966) said that as early as 1856 there were nine Yoruba cities of over 20,000 including three of over 60,000 population. By 1911 the number of Yoruba cities had increased to eleven, with five having over 60,000 population. By 1952 there were nine such cities. In 1950 Lagos had a population density of 87,000 per square mile; while Ibadan had 55.555 in 1960. Ogbomoso had 43,372, Abeokuta had 5,720 while Oyo had 13,914 per square mile in 1831. A comparative figure of 24,692 for New York city, 15,850 for Chicago, 15,743 for Philadelphia and 5,451 for Los Angeles, the fourth largest urban centres in the U.S.A. in 1960 per square mile clearly illustrate the degree of early urbanisation of Yoruba towns.

AVENUES SOUGHT FOR TREATMENT

Prevalence of diseases in Rural and Urban Communities

Almost all the capital cities in tropical Africa have better medical and school facilities than the rural areas. The rural people have few medical facilities, little prospect of a reasonable education, and are usually in very poor health. Almost all pathological conditions recorded by Mills occured more frequently in the villages than in the town (Owen, 1973).

In 1982 the Federal Office of Statistics conducted a pilot survey to determine the health and nutritional status of Nigerians. The report indicated that rural population reported considerable more illness than the urban population. While just 10% of persons in Urban areas reported illness within a 14-day period, the comparable figure for the rural sector was over 30%. Much lower levels of injury, hospitalisation and handicaps were identified in urban sector.

Table 1 indicates the population of children who die before they reach 5 years of age by urban or rural location of mother and by state. Source Hannss interim report, Federal Ministry of Statistics, Lagos, March, 1983.

It can be clearly seen from table 1 that the number of children who die before they reach 5 years of age is more

TABLE 1

Distribution of death rate per thousand by rural and urban locations

	Urban	Rural
Borno	300	320
Cross River	100	170
Kano	266	420
Lagos	190	360
	856	1,270

Source: Federal Ministry of Statistics, Lagos, 1983.

in all the rural areas than in urban areas of the four states for which the figures are provided.

Sanders (1977) however assumed that death rates are lower in rural area than in urban area. This conflicting opinion posses the question of which might be true if more accurate indices were available.

The efforts to ensure that relevant kinds of health and medical services are made more readily available to rural residents represent an issue of social justice. The relative scarcity of medical care resources in most rural communities is seen by those residents as a continuing inequality. The lower density of population in rural areas, combined with the fact that many such areas are poor, creates inherent continuous obstructions to the development

of needed facilities and the recruitment and retention of professional personnel if reliance is placed only on the "free market" system. The notion has become stronger that rural people have entitlements as citizens which give them the right to expect that appropriate measures will be undertaken to overcome these inherent problems realising that in the main, they would be unable to do so by themselves (Shops and Bachar, 1981).

Avenues for treatment

Udoh (1981) identified seven factors affecting the individual choice of treatment in times of illness, namely:

(a) The concept of disease causation held by individual.
(b) The type of illness or disease an individual suffers from.
(c) The location of medical help.
(d) The flexibility of treatment.
(e) The influence of family or friends.
(f) The educational background of the individual.
(g) And the socio-emotional factors of the individual.

Brieger (1981) however included such factors as the individual knowledge of available services, and the perceived competency of the providers. He also pointed out the demographic factors of age, sex, educational level and

economic status as important variables that influence the utilisation of health services by individuals.

So many avenues are open for consultation in times of illness. Baeta (1967) described three approaches to healing as thus:

(a) Bodily or natural healing, this probably involve the use of both modern and traditional drugs.

(b) Psychic healing which is often linked with magic and

(c) the religious or spiritual healing.

Baeta (1967) further mentioned that a case of ill health simply falls to be cured and it does not matter in the least by what means or combination of means the cure is obtained. Adejumo (1982) agreed with this assertion through his findings that illiterate, literate, male, female, old and young subjects significantly indicated they would attempt any means for cure if their illness seem to be prolonged. In his own description of avenues for consultation, Udoh (1981) identified three avenues which are:

(a) Modern medicine which is personified by a modern doctor.
(b) Traditional medicine which is practised by traditional doctor also called herbalist.
(c) Church healing sect represented by the spiritual healers or priest of spiritual church.

Adejumo (1982) however identified four main avenues sought for treatment, namely, the modern medicine/hospital, the traditional medicine/traditional doctor, the spiritual church healing/spiritual church priest, Muslim medicine/ Muslim priest in the order of acceptability among the inhabitants of Oyo.

Modern Medicine

The modern medicine is otherwise known as the Western form of treatment. Sources here range from the medically approved treatment by qualified doctors and nurses to the disapproved patronage of patient medicine seller and self medication.

The development of modern medicine has followed the story of man's effort to fight against diseases. Hippocrates born in 460 B.C. has the honour of being one of the first physician to admit the natural sources of diseases and he is regarded to be the father of modern medicine (Hughes and Marshall, 1974).

Many diseases known to our generation are now getting extinct an example of which is small-pox. Other diseases that caused epidermics in human race, up to recent times have been brought under control. Except for a few isolated

and backward areas, disease such as plague, cholera and yellow fever do not cause death on the vast scale that they use to do in the past (Godman, 1962). Some remarkable achievement of modern medicine include heart transplant, kidney transplant, eye transplant, and test-tube babies to mention but few (Oshivere, 1982).

Modern medicine holds the germ theory as its central theme on the infectious disease causative factors.

Among the short-coming of the modern medicine are the shortages of the personnel and the drugs. Udoh (1981) mentioned that modern medical care centres are far below the needs of the vast majority of the people of Nigeria. Besides, the modern hospital facilities are concentrated in urban centres. Thus it becomes more difficult for the rural community to enjoy the modern hospital facilities. Hackett (1979) expressed similar opinion that hospital services in urban areas remain very over-loaded, and even when they are relatively well developed such as in Lagos, poor living conditions may tend to offset their benefits. Besides there is the shortage of doctors in relation to the size of the population and in addition costs may be prohibitively high for the average patient. Patient medicine are available for self-medication but the choice is both confusing and dangerous.

The distribution of physician in the U.S.A. helps define the inbalance in the health service available to rural and urban communities. In 1976, the national distribution of patient to physicians was 137 physicians per 100,000 persons in the number of countries (2,389) classified as urban while the physician distribution is approximately 70 physicians per 100,000 persons in rural counties (Sheps and Bachar, 1981). The disparity could be more alarming in Nigeria where they physicians would not like to work in the rural areas which often lack social infrastructures.

Feldman, Deitz and Brooks (1978) mentioned that the average age of rural doctors is older than that of urban doctors. They also identify the depressed condition of rural economies and the resultant unattractiveness of the living environment as factors responsible for the physicians lack of interest in working in rural areas. According to them health professionals may not want to live and raise a family in an area which lacks social and cultural amenities.

From table 2 it could be observed that the estimated number of person per doctor and per hospital bed in Nigeria were 43,469 and 1,582 respectively. The 1984 figure for the physician - population ratio is 1 : 11,200.

TABLE 2

Comparative Medical Services (1977 estimates).

Area	Person per doctor	Person per hospital
Brazil	2,028	264
Ecuador	2,928	434
Ethiopia	73,304	3,081
India	4,795	1,571
Nigeria	43,469	1,582
Egypt	1,813	461
U.K.	787	110

Source: Parker, E. W. (1977) Introduction to Health Education

This could be seen as an improvement when compared with 1977 estimates. But it still falls short of world health organisation's recommendation that by 1980 all developing countries should strive towards attaining a minimum doctor to population ratio of 1 : 10,000 (National Concord 27th June, 1984).

The problem of manpower in health care delivery system in Nigeria cut across the entire spectrum of the various manpower categories from specialists and general practitioners to midwives and nurses. Ifedi (1984) gave the summary of the modern medical facilities in Nigeria as 3,500 hospitals, with about 30,000 beds and 2,600 doctors with about 900 pharmacists for over 80 million people. He

also mentioned that in some areas distances to the nearest health centre or hospital are so far that many thousands of Nigerians have no prospects of seeing a doctor throughout their life span.

Other criticism levelled against modern medicine is that it disregards the aspect of religion and beliefs of the rural community (Udoh, 1981). Besides this, Bolaji (1967) said that despite the achievement of modern medicine it cannot hold a monopoly of successful healing owing to the extremely intricate interrelated and unpredictable nature of the object in question, namely: living man.

Despite the problem facing modern medicine, it still remains very much acceptable to the Nigerian communities. Injection is particularly seen by many rural people and illiterate as the magic cure of Western medicine. Although in some diseases like smallpox, yellow fever and measles injection is seen not only as impotent but dangerous (Adejumo, 1982).

Traditional Medicine

A visitor from a developed country may not be aware that there exist in most areas of Africa well tried out traditional ways of diagnosing and remedying ill health and indisposition. The absence of familiar medicine and medical facilities does not necessarily mean that the

condition is being neglected. Throughout tropical Africa people have for generations used plants and plant derivatives and less frequently special extracts from animals, as remedies for ill health (Owen, 1973).

The efficiency of traditional medicine is not disputed in Africa. The assistant executives secretary of O.A.U., Abdel Rasik said that Africans have faith in healers and herbalists and that about 85% of Africans go for traditional medicine (Makinde, 1984).

Traditional medicine actual practice originated with the juju priest who always directed the burning of smelling substances of herbal materials to produce sweet incense to appease the gods of medicine (Mume, 1973). Ladejobi (1982) also opined that the practice of traditional medicine has been with us ever since the human being was able to recognise probably by instinct and more by trying the different physiological properties of plants in his environment. In a similar vein hippocrates, the father of modern medicine said that many drugs have been found often enough by plain people and by more chance, rather

than by planned scientific investigation (Mume 1973).

Ladejobi (1982) categorised the traditional healers under three broad groups, namely: the educated herbalists, the herbal medicine hawkers who sell herbs all over Nigeria and lastly the people in the villages who actually cultivate the herbs. Mume (1973) had eight categories of traditional medicine which are as follow: Herbalism, Hydrotherapy, Massage, Blood-letting, Faith healing, Surgery, Heat Therapy and Fasting.

Ademuwagun (1978) mentioned that the people, particularly the illiterate and semi illiterate consider the orthodox and traditional processes as complimentary. The former deals with the individual person as a patient while the latter deals with a patient in his total environmental setting - as an individual, as a social being, and as a link in the chain of natural and supernatural networks as these are symbolised in the ancestral worship phenomenon. A similar view was expressed by Mume (1973) who mentioned that the philosophy of modern medicine centres on the study of disease and how to supress it unlike the traditional medicine which centres on the study of health and how to prevent and cure diseases, thus while a modern doctor will be interested in the prognosis of diseases the traditional doctor will be

interested in the over-all circumstances of the sick person.

The criticism that traditional healing delays consultation with modern doctor was debunked by Frankenberg and Leason (1975) when they indicated that one third of those patient who consult traditional healers had gone first to a modern medicine agency.

Various government are giving recognition to traditional medicine and pharmacopaeia throughout the world, including even the World Health Organisation (Oshivere 1982). The Lagos State Government has established a board of traditional medicine. The editorial comment of daily concord of June 27, 1984 recommended traditional medicine as alternatives to modern medicine in view of the gross shortage of the latter in the country. While places like China and India are moving towards integration, the western trained Nigerian doctors are putting a clog in the wheel of change and progress (Makinde 1984). The western trained practitioners are advised to lay rest whatever professional arrogance or elitist prejudice and in the same light the traditional practitioners are also advised to bury for good those tendencies towards intransigence and secrecy that have generally precluded them from presenting their prescriptions

and therapeutic processes for necessary evaluation, scruitiny and standardization (National Concord June 27, 1984).

Spiritual Church healing

Bolaji (1967) mentioned that religion is considered necessary to medicine, since the belief is that only the maker can remake, repairing the damage to mind and body can effect wholeness in man's being. The purely religious concept of diseases is embodied in the Old Testament. There, disease is the expression of the wrath of God, to be removed only by painful moral reform, prayers and sacrifice and it is God who confers both health and disease according to his divine and unpredictable will.

Life schedules permit that a human being can be a saviour of a fellow human. It depends on the one that is bestowed by God with spiritual powers (Audu, 1984). A clear example of the relationship between divinely-caused disease and prayer is the case of Hezekiah, who was severely ill and prayed to God for his health. His prayer was overheard by prophet Isaiah, who begged and obtained divine acquiescence to help him. Isaiah ordered that a lump of figs be applied to Hezekiah's afflicted parts, with the result that the ailing man was restored to health (Tamayo, 1977).

Udoh (1981) identified some spiritual churches in Nigeria and their common features. Such churches include the Cherubim and Seraphim, Christ Apostolic Church and Celestial Churches to mention but few. Their common features are

(a) They all claim to heal the sick and infirm with the help of prayers.

(b) They all claim to be spiritual churches and are in direct communication with Christ and God.

(c) They all claim to have numbers of seizure during which they fall into ecstasy.

(d) They all sing and dance to tunes which are very African in nature.

(e) In most cases they adorn themselves in white as a symbol of purity.

Audu (1984) mentioned that the Celestial Church of Christ is part of spiritual world-wide organisation that has salvaged many human problems.

According to Hackett (1981) some sickness are now recognised in the west to be psycho-somatic and such sickness include migraine ulcer, certain types of paralysis, body aches and pains. Some infectious diseases can also be due to the frame of mind. In these area of affective need, Hackett pointed out that the pastural care system of the

Aladura Churches may be especially beneficial. He further reiterated that the type of pastural care adopted by most Aladura Churches involving diagnosis and prescription by a prophet forms part of the healing success of the Aladura. The individuality of each diagnosis and the accompanying ritual prescriptions for example special prayer, use of holy water or candles, mean that the patient is engaged in the business of his own cure. As an active participant in ritual activity and prayer, he is prevented from becoming a mere object of impersonal treatment. Furthermore the atmosphere created by many of the churches of peace, purity and cleanliness contrasing strongly with the chaos and insanitary condition of the outside world help in the recovery of the patient, and coupled with this are music, druming and dancing which have therapeutic effect on the patient. Adejumo (1982) found out that more illiterate, female and old people patronise spiritual churches for health problems than the literate, male and young people. Baeta (1967) levelled criticism against the activities of the healing sects pointing out that the field is practised with unrelenting empty garrulousness, ignorant, credulity, charlatanism and fraud.

Muslim Medicine/Muslim Priest

Adejumo (1982) identified the muslim priest as another alternative avenue for treatment sought by the inhabitants of Oyo. No much literature work is available on this avenue. It is a newly emerging avenue for treatment which mix the traditional practises with Islamic religion. This makes some traditional medicine to be acceptable to the larger muslim population. The use of this avenue usually involve writing of arabic words on papers, after on it is wrapped with leather or black, white or red threads after adding some local herbs. It may also involve drinking or bathing with Koranic words robbed off from slate. Evidently many local beliefs infiltrated into this practice.

Muslim medicine are however not prepared exclusively for curative purpose. It is more often than not sought after for protection against witches, success in business or in occupation, goodluck, promotion, academic success, love and lots of other social and emotional problems.

DRUG USE

Drug has been defined by Udoh and Amusa (1983) as any substance other than food, which when introduced into the body, alters the body on its functions.

Generally a drug when professionally prescribed is a substance used to treat illness, protect against disease or promote better health. Misuse of drugs or drug abuse refers to unreasonable or inappropriate use of drugs taken without medical advice. Udoh and Amusa (1983) also defined drug abuse as persistent or sporadic excessive drug use inconsistent with or unrelated to acceptable medical practice. This defination does not separate legally accepted drugs like alcohol from illegal groups like Indian Hemp. In other words social acceptability does not necessarily extricate drugs like alcohol and tobacco, from being drugs of abuse.

Alcohol Consumption

Alcohol consumption poses one of the greatest contemporary social problems for modern world. The problem of alcohol consumption is an old issue. It is probably as old as man's civilisation. Estrada (1972) mentioned that methods for making alcohol have been known since before the beginning of recorded history.

The uses of alcohol can be broadly categorised into social, medicinal and industrial uses. Alcohol is used for entertainment during social ocassions such as naming ceremony, wake-keeping, burial ceremony, house-warming, birthday parties, wedding ceremony, promotion ceremony, welcoming new visitors to the household and all other ocassions which call for rejoicing. Alcohol is also used for pouring libation to the ancestral gods and during performance of certain rituals. Raymond (1964) analysed some of the social use of alcohol in the following ways:

Some drink to feel relaxed because they are tense and apprehensive example of which is an insecure adolescent boy who dates a girl.

Some drink because it enables them to feel more comfortable in coping with work and in social life.

Many others drink to remove loneliness or to conform with peer groups and others drink to entertain during ocassions that call for rejoicing.

The medical use of alcohol include its use for treatment of high blood pressure (Brooks, 1979). Locally it is used to prepare concoction for treating malaria and yellow fever (Adejumo, 1982).

Industrial use of alcohol is in manufacture of soap and cooking gas (Finlay, 1979).

In Nigeria various kinds of alcohol drinks range from imported ones to locally industrial manufactured types and the locally produced drinks. The hot drinks include schnapp, dry gin, gordon's gin, whisky and so on and forth. The beer brand include star, castel, heinekens, top, club, noble, guinness, double crown, double three, to mention but few. The local drinks include ogogoro (locally distilled gin), palm wine, oguro (tapped from coconut trees), burukutu, agadangidi and lots of others.

Falewich (1961) mentioned the following factors as influencing the consumption rate of alcohol among the Polish youths of between 18 - 24 years of age.

(a) Influence of family background.

(b) Peer, School and Work Communities and Youth Organisation.

(c) Personal and social adjustment of the individual.

(d) Choice of definite patterns of leisure

(e) Availability of information about physiological and social consequence of abusing alcohol.

(f) Abolition of prejudices and myth concerning alcohol.

Reinband et al (1979) in their study of consumption trend of alcohol among youths aged 14 - 19 in Hamburg,

Western Germany found out that the percentage of youths who on principle do not drink alcohol declined over the year from 20% in 1971 to 7% in 1975. In Canada 20% of the adults were reported as drinkers. It was estimated that 100 million Americans above the age of fifteen including about 8 out of 10 adult men and 6 out of 10 women use alcohol beverages. 90% of those who drink appear to use alcohol without noticeable danger or damage to themselves or others except when they drive after drinking. But about 7 million are estimated to be alcoholics (Raymond 1964).

In Nigeria there is no reliable statistics to show the consumption rate. But one thing is certain. There is a sharp increase in number of brewery industries from about 19 in 1981 to more than 30 breweries available at present. Oyo State alone has six breweries.

In the opinion of Abiola (1984) alcoholism is the Nigerian number one social problem and that at the rate at which breweries are being established in the country it is easier to get a cup of beer than a cup of fresh water in any part of the country.

Peek et al (1978) mentioned that the developing urban centres with its characteristic social problems of lack of employment and housing encourage the frustrated youths

to indulge in alcohol consumption. They are also of the opinion that alcohol consumption can be expected to be more prevalent among urban residents and that urban size is positively correlated with alcohol use.

Dennis (1962) mentioned that alcohol consumed in moderate amounts by adults of mature personality can not be objected to on any medical grounds. Problem do arise when a person becomes dependent on alcohol. But a person who, even for the first time, drink in excess might be exposed to danger, most especially if he drives because of the loss of sense of judgement. As a pedestrian he might also be knocked down by moving vehicle for the same reason.

Housten et al (1975) group the problems arising from alcohol consumption into the three main groups namely: physical problems, psychiatric problems and social problems.

On the physical problem of alcohol, Udoh et al (1981) mentioned that alcohol consumption may dangerously expose the body to cold in a cold weather because the drinker may feel unnaturally warm when there is no actual change in the oral or rectal temperature. Byrd (1961) identified the deficiency of the B complex vitamins as the most of the so-called alcoholic disease today.

Raymond (1964) mentioned that heavy drinkers may suffer from chronic gastritis. They may also suffer from poptic ulcer (Mottens, 1978) damage to the kidney (Udoh et al, 1981) heart attacks and stroke, poor muscular co-ordination and skillful movements (Byrd, 1961). Heavy drinkers may suffer from the cirrhosis of the liver (Udoh et al, 1981) and lowered body resistance to diseases as in cholera, pneumonia and tuberculosis (Byrd, 1961).

The psychiatric problems that may be experienced by heavy drinkers include depressed activity of the brain, reduction in attention, blunting of keen judgement, easing of critical judgement, lessening of discretion and control (Udoh et al, 1981).

Heavy drinkers may also suffer from dementia paranoid reaction (Houston, 1978) delirium tremens and hallucination (Udoh et al, 1981).

Raymond (1964) mentioned that bulk of the problems associated with alcohol are social in nature. The heavy drinkers may shirk his responsibilities, he is likely to be unproductive in his place of work and this may lead to the termination of his appointment. Drinking is a common reason given for distruption of marriage life. Alcohol is regarded as the bed fellow of symphilis and gonorrhea

(Byrd 1961). Perhaps the biggest of all the social problems pose by alcohol is probably traffic accident. Most studies indicate that drinking is a contributing factor in not less than 25% of traffic fatalities in U.S.A. (Raymond 1964).

Killy (1979) is of the opinion that since drinking, drunkeness and alcohol are learnt behaviours, how we act when we have been drinking or are drunk is a function of how we have learned to behave in such states rather than a function of physiological or psychological processes. He therefore advocates an unbiased approach to the study of alcohol and the attendant problems.

Mwanalushi (1981) suggested provision of alternatives to drinking in form of promotion of recreation and education. He however, pointed out that alcohol education should be related to the experience of the people and undue weight should not be placed on the pathological aspects of drinking since this is likely to produce a boomerang effect.

Cigarette Smoking

Smoking behaviour has attracted the attention of many researchers in recent times. It has therefore been intensively studied by people working in the health delivery systems, psychologists, cardiologists, sociologists,

social case workers, neurologists, community developers and others interested in addictive behaviours. Unfortunately, smoking behaviour is a socially undesirable behaviours that is prevalent in nearly all the cultures of the world. It is socially undesirable because it endangers an individual's health, reduces his productivity on his job, affect his family life, drains his economic resources and self-interest (Akinboye, 1981).

Many diseases are associated with smoking. Studies have indicated that regular smokers have higher death rates from lung cancer, disease of the heart blood vessels, kidney, stomach ulcers, liver disease and some respiratory disorders such as bronchitis, pleurisy and emphysema. A very few heavy smokers have been known to suffer from an impairment of vision characteristic by dimness or partial blindness, dilation of the pupils and inflammation of the optic nerve, which is called tobacco amblyopia (Byrd, 1961; Janis and Holtman, 1971, Borstein et al, 1977, Flaxman 1976 and Hunt et al 1973). The anti-social effect of smoking include fire outbreak due to carelessness with cigarette and discolouration of teeth and hands, unpleasant smelling, clothing and litter from stubs and packets (Parker, 1977).

Ikard (1969), Glasgow and Rosen (1978) and others have concentrated in describing possible factors maintaining smoking behaviour as a means of establishing strategies of management. Not many observations have been made in the Nigeria cultural settings. A few scattered clinical observations and studies are however available of the smoking behaviour. These include the observation of Adeniyi (1980), and Akinboye (1981). The feelings expressed by the African scholars generally indicate that smoking is increasing in incidence in the Nigeria contexts and more clinical and assessments of the behaviour be made as a basis for establishing a programme for its management.

Smoking behaviour continues to be in the increase in many part of the world. In 1964, the surgeon-general in U.S.A. public health service made general declaration that smoking behaviour is harmful to health. In 1977, the Royal College of Physicians reported that about 50 million working dyas are lost each year through the effect of smoking. There are at present some 15 - 16 million cigarette smokers in the Federal Republic of Germany. Eight or nine million of them smoke over 5,500 cigarette a year, they are therefore among the habitual smokers who even if they want to stop, have problems in breaking their

accustomed behaviour patterns. About 50% of all fathers and 32% of all mothers of children of compulsory school age are regular smokers and about half of these are heavy smokers (Welsch, 1980).

Drug Abuse

The World Health Organisation defined drug as a chemical agent that is used therapeutically to treat disease. More broadly drug is any chemical agent that affects the living protoplasm. In its more practical application the term refers to any substance of medicinal use (World Health Organisation, 1981). Cape and Dobson (1974) defined drug as substance used as a medicine.

The problems of drug abuse include drug quackry, self medication, consumption of narcotic and drug trafficking.

Akubue (1984) mentioned that in 1983 alone Nigerians spent 60 million Naira on drugs which they need not have taken. He said that in 1980 3.9 million Naira was spent on importation of tetracycline and 3.1 million Naira on chloramphenicol, stressing that the rate of consumption was frightening most especially when it is agreed in medical circle that indiscriminate use of antibiotics can destroy the red blood cells and lower the iron content in

the body. Likewise, unguided use of analgesic can affect kidney. In respect of under dose of drugs, medical experts say that this leads to the development of resistant strains (Owen, 1973).

Quackery is the practising of medicine by a faker, a charlatan, an incompetent person. Baker (1963) describes quackery as the unapproved, unauthorised, unethical type of a person deliberately, fraudulently makes a false or misleading health claims for any food, drug or device.

Ogundele (1983) identified factors responsible for the proliferation of drug quackery in Nigeria as illiteracy, poverty, desire for cheapness and prevalence of psychological problems associated with depression, over anxiety and other emotional feeling. But largely responsible for drug quackery are the inadequate medical services throughout the country and the commercial activities of manufacturer of drug. According to Ogundele (1983) some people believe that injection will do any magic to affect a quick change to their body functions. He mentioned that drug quackery is limited to sales of drugs and administration of injections in rural areas and he also pointed out that in rural areas these quacks are highly honoured and are usually called doctor.

He however claimed that in urban centres quacks hawk their drugs in motor parks and most of these drugs have expired and sometimes the quacks operate illegal clinics in the big towns.

The untold hardship caused by the activities of these quacks range from incapacitation to untimely death of many gullible victims through wrong diagnosis, use of dangerous drugs and improper use of injection. Abortion procured through quacks can result in death of the victim or make her become permanently sterile.

Self medication is a child of prevailing poor medical services. People adopt it as the only way out in a situation where they are left with no other alternative than to look after themselves. The danger of self medication is that the victim may not understand the symptoms of diseases and therefore make a wrong diagnosis. Also drugs have different reactions in different persons, doses are prescribed according to individual peculiarities such as age, weight and sex. The tendency in self medication is to take overdose as means of quick recovery. The prevalence of self medication is accentuated by unihibited drug advertising, illiteracy and the activity of the quack doctors especially in the rural areas where they are better known than the medical personnel (Ifedi, 1984).

The various government have made effort to control the indiscriminate sales of drug and other pharmaceutical products. In Plateau State sale of drugs in market and motor parks is banned. Section 32, sub-section 1, part 3 of the first schedule of the laws of the Federal Republic of Nigeria (1958) forbids patient medicine sellers from selling antibiotics and sulphenamides like M and B 760 and 693, but these drugs are being sold in every patient medicine store (Akibue, 1984).

Brooks and Brooks (1979) defined drug abuse as the excessive or persistent taking of a drug without regard for accepted medical practice. Drug abuse commonly leads to drug dependence. Drug dependence may be the psychological type or the physical type. If it is physical dependence the state of the body physiology is altered and the withdrawal from drug may cause distressing symptoms which include discomfort, restlessness, vomitting, diarrhea, aching muscles, slight fever, elevated blood pressure. Death may result from acute withdrawal symptoms if there is no proper medical aid.

Byrd (1961) classified the commonly abused drugs into:

(a) Narcotic e.g. heroin

(b) Sedatives and hypnotics e.g. barbiturates.

(c) Hallucinogen e.g. Lysergic acid diethylamide (LSD).

(d) Stimulant e.g. Amphetamines and Cocaine.

The common dangers of these drugs are the physiological and the social implications. Death, mental diseases, poisoning, and crime are the main problems relating with the drug abuse.

The problems of drug abuse and drug trafficking have been on the increase in Nigeria. Cannabis is found to be abused among the Nigerians who illegally cultivate the herbs. But of recent the use of cocaine is on the increase. Amphetamines is commonly abused by farmers and those engaged in manual work as means of relieving fatigue. Sleepless tablets are commonly abused by students who want to burn the candle at both ends during examination period while lots of people use sleeping pills due to inability to sleep naturally as a result of anxiety and stress of modern life (Ogundele, 1983).

Nigerians in a get-rich-quick attitudes are seriously involved in international trafficking of drugs. Nigeria is now one of the six leading countries from where cocaine and other narcotic matters are exported to Western Germany. Many Nigerians are known to be in jails in all part of the world for drug offences. The way by

which Nigerians transport the illegal drugs to beat the custom men is now a source of concern. Some swallow the drugs which is quite dangerous. Others, female, hide the stuff in their private part. The whole mess is a serious concern to the Federal Government and this has led to the promulgation of decree 20 on drug trafficking. Any person who aids, counsels, procures or conspires with any other person to deal in cocaine is to be shot by firing squad as published in the extra ordinary gazette number 64 volume 71 of 1984.

Perhaps to make the intention of the Federal Government realised, the legislation should be supplemented with adequate health education of the masses on the danger of drug abuse.

NUTRITION BEHAVIOUR

Eating of balanced diet

The term "Nutrition" is defined by Cape and Dobson (1974) as "the process by which food is assimilated into the body in order to nourish it.

Collier's Encyclopaedia (1963) refers to nutrition as the study of foods and their composition and the ways in which the chemical components of food are made available to the body for its growth, reproduction, mainte-

nance and repairs. It further stresses that the mechanisms by which this food supply is ultimately transferred to body tissues determines the individual's nutritive state. Brooks and Brooks (1979) refer to nutrition as the sum of the processes by which the body takes in and utilizes food. It is the story of food and the use the body makes of it. They also pointed out that a person's nutrition is influenced by the availability of foods in the market, the money the individual has to spend for food, the way the individual feels about food, the sanitation of food supplies, the way food is processed, and the knowledge and appreciation he has of food values.

Udoh (1981) refers to nutrients as the part of food which carry out functions in the human body, these functions being: furnishing the body fuel needed for its activities, making available materials for the building or maintenance of body tissues and the supply of substances that act to regulate body processes. It is known that some of the food we eat may fulfill all of these functions or just only one, but for the maintenance of good health, all the three functions must be served by the diet as a whole.

A good diet otherwise called a balanced diet is one that supplies all the substances the body needs, fuel food

for energy, protein foods for growth and repair, plus minerals and vitamins for the many functions they perform. Adequate fluid is needed in any diet.

Attention must be given to the type as well as to the quality of food ingested into the body in order to derive the appropriate nutrients in proper quantity required for the effective functioning of the body (Morehouse and Miller, 1967).

Malnutrition

According to Parker (1977) malnutrition simply means 'bad nutrition'. It could be brought about by ingestion of too little or too much food or lack of any essential nutrient. It could also be due to some disorder preventing digestion and absorption into the blood or to defects of subsequent metabolism.

Igbeare (1984) listed food shortage coupled with rising prices and poverty as the main cause of malnutrition in Nigeria. He also identified poor choice of food due to ignorance or fadism (preference for pride food) as other contributing factors. Expantiating on the factor of ignorance as contributing to malnutrition, Parker (1977) mentioned that in under-developed countries the scarce animal protein may be given to adult males, instead of to those who need it most, the pregnant and nursing mothers

and young children. Fish, egg or milk, may even be forbidden if available. Owen (1973) is of the opinion that nutrition disorder is much higher in villages than in town. According to him the people in the town are able to buy a wide range of food item and as such are more likely to rectify any food deficiency. He also mentioned that there is ample evidence that much child mortality in rural Africa is associated directly or indirectly with a diet that is deficient in protein. Kwashiorkor is a common nutritional disease in rural African society. The problem of malnutrition is compounded in Nigeria because our local diet comprise mainly of carbohydrate.

The importance of following a balanced diet cannot be over-emphasised. Equally to be emphasised is the fact that a varied diet is not necessarily a balanced diet (Udoh, 1981) and that malnutrition can co-exist with surplus food. In essence, a food and nutrition policy are inseparable.

There is a need to survey our nutritional status every five years. The last survey conducted in 1965 with American aid reported that there was severely deficiency of riboflavin, amongst other widespread food shortages. The report recommended thorough education and an effort to be made to encourage production and consumption of food

containing high levels of vitamins. A national survey is vital to solving the crisis, from it we can be sure of the nature of malnutrition here. Experts say the survey will not cost more than one million naira. If the government is unable to provide finance, kind hearted persons, groups or associations can assist as for the Olympic Fund. It is surprising to know that even Ghana and Tanzania conduct periodic surveys (Igbeare, 1984).

Eating between meals

There has been a considerable amount of discussion about the desirability or otherwise of eating between meals. Udoh (1981) is of the opinion that there is nothing strictly wrong with eating between meals, but rather is the major problem is what is eaten. He opined that while eating between meals may be advocated for children and teenagers because of the high demands of calories needed in the growing process as well as for their physical activities, the adult, should have no need for food between meals so long as he eats adequate meals. Soft drinks, biscuits, chocolates, candies etc can become real problems if they are consumed out of proportion to other foods in the normal diet. These foods should never replace other foods which offer more adequate nutritive quality to the diet.

Udoh (1981) also identify overweight as a likely result of over-eating and stress that an overweight person has no inclination towards physical activity, and therefore will become consistently unfit to a point when even movement within the house becomes an unsurmountable problem.

Byrd (1961) is however of the opinion that eating of five meals a day was more beneficial in terms of energy and vitality than eating the traditional three times a day. He also indicated a measurable improvement in work output in industries where there is provision of a mid morning snack or mid afternoon feeding. He however stressed that the between meal feeding should not be simple additions to food intake in terms of quantity, i.e. consumption of coffee, tea, cola drinks and confectionery.

Coffee is a mild stimulant, so is tea, cocoa and the myriads of cola drinks. They all contain caffeine but in different quantity. Caffein is known for its activity of stepping up the action of the nervous system, kidneys, muscles, heart and respiration. Caffein can also kill if it is consumed in large quantity. Drinking too much tea, coffee and cola drinks may do harm in that by satisfying one's hunger before eating enough of wholesome food, it may work to keep one under nourished. If sugar diet is

eliminated, better than 90% of all dental decay would be arrested (Byrd, 1961).

Udoh and Amusa (1983) indicated that 84% of their subjects drawn from literate groups in institution of higher learning in Oyo and Kwara States consumed more than five cups of Coffee drinks daily. It is obvious that illiterate people do not take much of tea, not the same quantity otherwise obesity is apt to become a problem.

Eating irregularly and skipping food

Irregularly eating is manifested in skipping meals or eating without proper schedule of time. Udoh and Amusa (1983) found out that 48.9% of their subjects drawn mainly from literate groups in higher institutions of learning in Nigeria eat irregularly. They pointed this habit to be detrimental to health. Evans (1976) asserted that the stomach requires regular hours of work and rest, and that if we eat too often and at irregular times the stomach will miss this rest and may soon be out of order that consumption, indigestion, and other ills may follow.

It was shown that about 50% of those who skipped breakfast entirely indicated tremor and body weakness. Some subjects also indicated weakness to the point of illness, whereas other subjects indicated no difference in

their feelings. It appears that certain persons definitely should not skip breakfast. Even in those who do eat breakfast the staying power is improved if proteins form a part of the breakfast (Byrd, 1961). In this period of austerity coping with the situation might mean having to skip food most especially by those who are unemployed and students. It will be difficult to conclude whether in Nigeria the urban residents skip food more often than rural residents since there is no available literature on the issue.

Infant nutrition

Central to the infant nutrition is the issues of breast feeding. Lots of researches have been carried out to determine the advantages of breast-feeding. Soysa (1981) listed the advantages of breast feeding as:

(a) It establishes mother-child bond.

(b) It gives the mother emotional satisfaction of knowing that she is meeting her baby's nutritional needs.

(c) It is economical to the mother since it does not involve purchasing milk.

(d) It is convenient for mother because it does not entail purchasing, cleansing and sterilising utensils.

(e) It does not inconvenience the household members when feeding at night in the crowded and poorly illuminated homes of the developing countries.

(f) It reduces the cases of breast cancer.

(g) It promotes early ovulation

(h) It is effective as means of spacing births.

(i) It conveys immunological advantage to the baby.

(j) Lastly, it prevents infection like diarrhoea and gastro-entritis.

Despite these numerous advantages the trend in the developing countries is to abandon or cut short breast feeding for artificial feeding. Ekeh (1980) observed that this trend is becoming a permanent features in the feeding of infants in Nigerian society. This trend, is perhaps adopted by the urban sophisticated working mothers since they are away from home a good deal of time. Ekeh is of the opinion that this habit may not constitute much health problems to those mothers with high income and standard education since they can afford to provide the nutritionally adequate weaning diets and the correct quantity of feeds with the necessary sterile conditions. But to the low income mothers bottle feeding can be disastrous.

Bernard (1980) indicated the average nursing period to be shorter in the cities than in the rural areas in the study carried out in Algeria. He also indicated that a large number of women in cities do not breast feed at all, or breast feed their children for less than a month. He noted that for both the urban and rural mother, the average length of nursing steadily increases with age. He is of the opinion that as women grow older their attitude towards breast feeding changes little and therefore he asserts that the decrease in the duration of breast feeding is due to the younger generation's attitudes. He attributed the factors of greater attachment to family institution in the rural societies and less availability of processed foods for weaning as contributing to disparity in the attitude of the urban and rural residents to breast feeding. Although he noted that disparity in education affects attitude to breast feeding i.e. those educated breast fed lesser than the illiterates, yet at the same educational level, the average lengths of breast feeding are higher in the rural areas. He noted similar patterns for the rural and urban communities in Senegal and he concluded that the traditional African values still hold in both the rural and urban milieu, but the former still remains largely traditional while the latter is more

influenced by the adoption of the Western habits as a result of advertisement for commercial milks, which promise a lovely baby like the Europeans.

In Nigeria, the study conducted by the Federal Office of Statistics on health and nutritional status of Nigerians in four states of the federation, Borno, Cross-River, Kano and Lagos indicated less significant difference in the breast feeding habit of both urban and rural communities for babies under twelve months of age. But significance difference is obtained in favour of rural communities taking to breast feeding of babies after twelve months.

In order to produce a cheap protein food that will help to reduce the high incidence of protein malnutrition in Nigeria, the Federal Institute of Industrial Research at Oshodi developed "Soya Ogi" - a mixture of 70% corn and 30% Soya bean powder enriched with vitamins. This products is not cheap but compares very well in protein quality and nutritive value with other imported, expensive brands of baby cereals. It is however scarce to obtain now due to lack of adequate resources for large scale production (Ekeh, 1980).

Ekeh (1980) wants the custom of serving the head of the family the significant portion of protein food which

the children need even more to be abolished as means of correcting malnutrition among children.

Food Taboos

Taboos are prohibitions instituted for the purpose of a cultural group against supernatural repraisal. Taboos are don'ts and do's of the society and can be a result of superstition. Superstition is a belief or practice resulting from ignorance or fear of unknown or trust in magic or charms (Eichler, 1924).

Owen (1973) mentioned that lots of superstitions and food taboos in African rural society can really be a source of malnutrition even if there are abundant food since these often lead to discrimination against the children and the women. Shan (1981) expressed a similar view that in developing countries, the diet followed during pregnancy is strongly influenced by beliefs, customs and taboos. The avoidance of some foods is common in many societies. He also mentioned that dietary restrictions very adversely affect impoverished mothers who are chronically malnourished and cannot afford to add other foods to their extremely poor menu, which often consists of one or two items.

Adejumo (1981) and Igbeare (1984) identified the taboos prohibiting the consumption of egg by children and

pregnant women, for the reasons that it will make former to steal and block the latter's cervic, as rampantly held by the illiterate and rural communities.

Ekeh (1980) however mentioned that the concept of eggs being restricted or witheld from children is becoming more of a fallacy than a fact and that the exclusion of egg from children's diet is due more to economic reasons than to superstitions or taboos.

Food Sanitation

Many epidermics of diseases that are spread through foods can be traced to poor sanitation and poor hygiene on the part of food handlers and in methods of handling food, especially when food handlers are suffering from some illness such as sore throats, cold, diarrhoea or open sores on the body (Byrd, 1961). Osiyemi (1968) pointed out that the problem of food sanitation arises as a result of urbanisation and many people in the cities consequently make use of eating houses and hotels. He also suggested the discouragement of the practice of unscrupulous food sellers who add colouring agents to the food. Among many other things he suggested declaration of war gainst illiteracy, ignorance, superstition, poverty and indolence which, to him, are factors contributing in many ways to bad food habits. The problem of the hygenic habits of food

handlers remains, as a constant challenge to public health authorities and this is primarily a problem of continuing public health education (Byrd, 1961).

Obi (1984) considered Nigerians' food habit as the extension of our unsanitary behaviour. He pointed out that in urban centres women hawkers of food display their parcels near feaces, without covering them and that despite the pathetic condition of the abattoirs and the unhygienic manner in which meat is displayed, Nigerians still relish in their taste oblivious of where they come from. At home we are used to eating with our fingers unwashed and the claim that germs, invisible microscopic organisms, cause diseases sounds like fairy tales to us. Rather Nigerians' populace believe that illnesses are caused by angry gods and not the whiteman's germs. Obi believed that few Nigerians will discard a piece of meat that drops on the floor. Igbeare (1984) expressed concern over the lack of hygienic conditions in our public markets where flies dance on food.

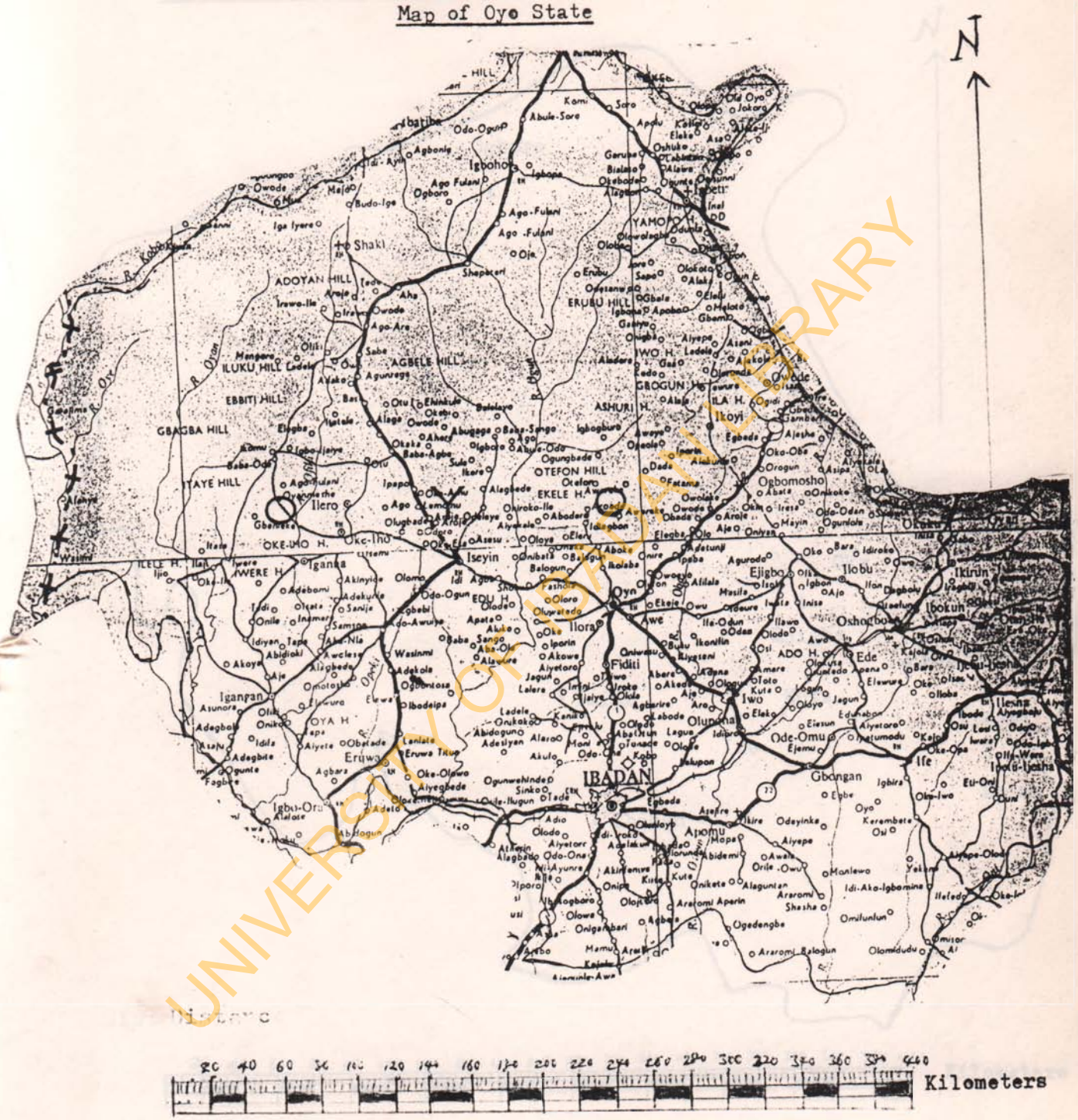
Eke (1980) pointed out the problem associated with Nigerian cooking habit. She said that we store excess food in the cupboard which are not insect-proof and only few can afford refrigerator in their home. The danger of food contamination cannot be ruled out under this

circumstance of poor storage. Besides, she said that mothers are in the habit of cooking stews and vegetable soups which will last for two or three days. Continual reheating of these stews and soups will result to loss of nutrients in the food.

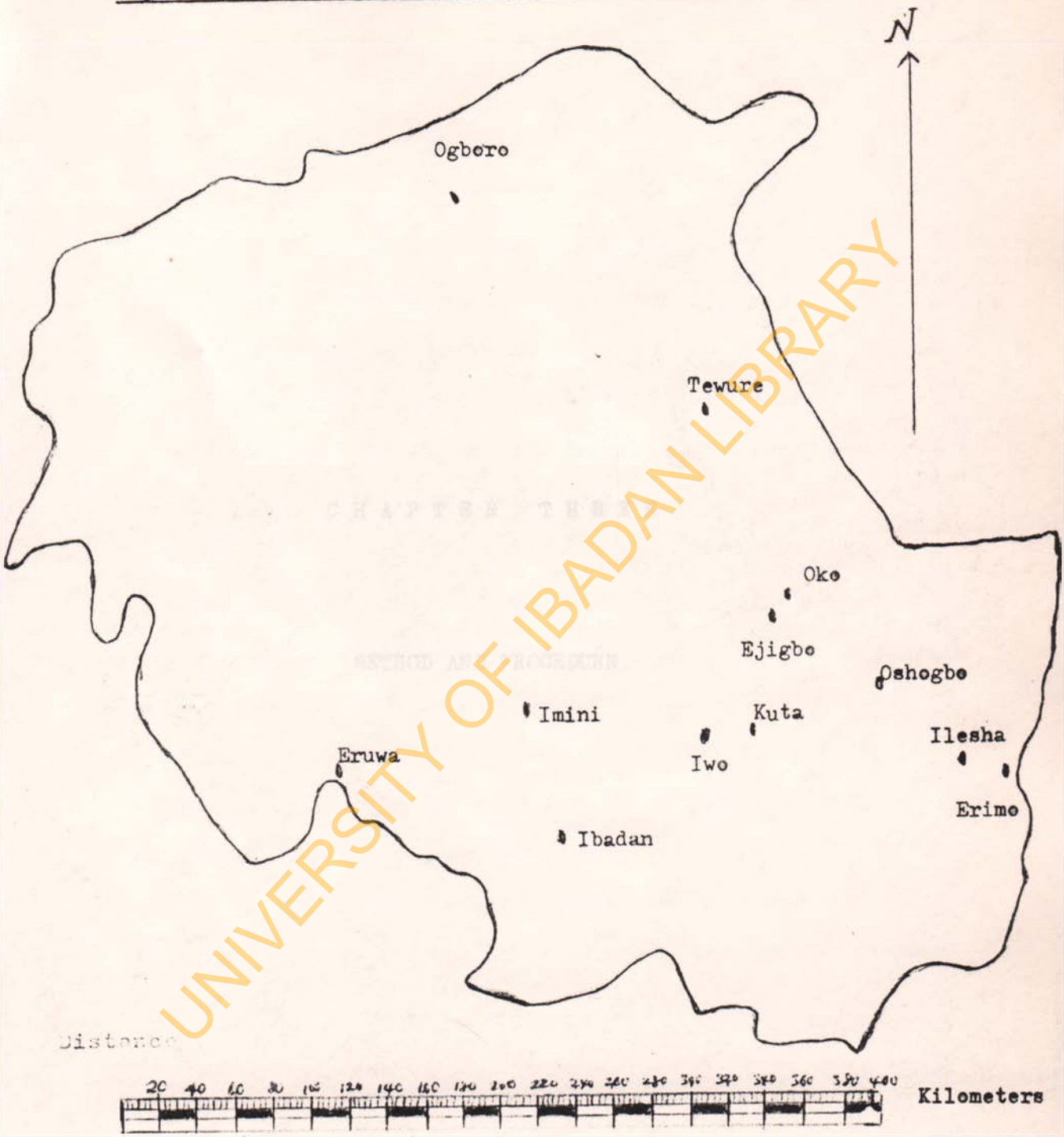
As a way of solving the nutritional problem of Nigerians, Igbeare (1984) suggested that all workers should be given luncheon vouchers and all work places should provide subsidised canteens which will serve balanced diet. He also stated that given an adequate diet, black children grow faster than the children of other races and that all things being equal, the black race is potentially the tallest race. He also advocated for provision of better storage facilities to avoid food wastage and teaching of National Youth Service Corps members essentials of good nutrition so that the knowledge could later be imparted to the communities as a somewhat alternative programme to community development.

It is however appalling that the decision of the Federal Government to cancel luncheon voucher came at the very moment health educators are advocating for it as one of the programme to solve the nutritional problems of workers (Guardian 28 of December, 1984).

Map of Oyo State



Map of Oyo State in relation to the areas of study.



Metropolitan - Ibadan

Industrial City - Osogbo

Pre-Industrial Town - Eruwa

Urban fringed rural Communities - Imini, Tewure and Ogboro

Remote rural Communities - Kuta, Oko and Erimo

C H A P T E R T H R E E

METHOD AND PROCEDURE

Introduction

In this chapter the nature of the sample, research instrument, data analysis and the theoretical model for the study have been outlined.

This study was carried out using three urban locations; Ibadan, Osogbo and Eruwa. Six rural communities which included Oko, Erimo, Kuta, Tewure, Ogboro and Imini were as well used in this study. The criteria for their selection are explained under the description for the population used.

Questionnaire was the main research tool for this study. 983 samples were selected for this study. The main yardstick for the selection of samples from each locality was the population ratio of the locality.

In all the localities selected for this research the method employed for the distribution of the questionnaire

was clustered sampling.

Analysis were carried out in respect of the responses to the items on the questionnaire. Responses in respect of preference for avenues for treatment sought in times of illness, drug use and nutrition behaviour were analysed.

The influence of education, sex, age, income and marital status on the responses obtained were as well analysed. Also the differences within and between responses obtained in rural and urban samples were determined using chisquare as the main statistical tool. Other statistical tool used was percentages. The theoretical model designed for the study identified three sets of variables, namely:

(1) Urbanisation

(2) Health behaviour

(3) Demographic factors

Population

For the purpose of selecting the urban locations three criteria were employed.

(A) The need for geographical spread of the sample of both the urban and the rural communities in Oyo State.

(B) The United Nations Economic Commission of Africa (ECA) classification of urban communities into the following three categories:

(i) Urban localities: 20,000 - 100,000 inhabitants.

(ii) Urban cities: 100,000 - 500,000 inhabitants.

(iii) Big cities: Over 500,000 inhabitants.

(C) Hanser classification of urban location into the following categories:

(i) Pre-industrial locations

(ii) Industrial locations

(iii) Metropolitan locations (Ikporukpo, 1982).

Using these three criteria the three urban locations that suitably satisfy the criteria were thus as follows:

(a) Eruwa with a population of 45,287 inhabitants and also with little industrial development fits into the group (i) of both ECA classification of urban locality and Hanser classification of Pre-industrial location.

(b) Osogbo with a population of 350,946 inhabitants and also with heavy industries like steel rolling mills and international hotels satisfies both ECA group (ii) classification of urban cities and Hanser group (iii) classification of industrial location.

(c) Ibadan city with a population of 1,612,062 inhabitants coupled with inumerable heavy industries fits into

group (iii) of both ECA classification of big cities and Hanser classification of metropolitan locations.

The selection of the six rural communities was also based on four criteria which are as follow:

(a) The need for geographical spread of the sample locations of both the urban and the rural communities in Oyo State.

(b) The nearness of the rural settlements to the urban centres (Urban fringed rural settlement).

(c) The remoteness of the rural settlements to the urban centres (Urban fringed rural settlement).

(d) The population of the community should not exceed 20,000 inhabitants with respect to the opinion of Breeze (1966).

Six rural settlements were therefore selected with respect to these four criteria and they were grouped as follow:

Group A: Tewure, Ogboro and Imini. These communities were remote from the urban locations and were not situated on intercity roads. They were not likely to be influenced by urban centres as much as the urban fringed rural localities (Ajaegbu, 1968, and Mabogunje,

1968). Their respective population figures were also 8,506; 8,965 and 8,630.

Group B: Oko (via Ejigbo), Erimo (via Ilesha) and Kuta (via Iwo) were the three rural localities selected in respect of their nearness to the urban centres. They were also considered likely to benefit from the influence of the adjacent urban centres (Ajaegbu 1968, and Mabogunje 1968). Their respective population figures were also 9,956; 9,702; and 9,808.

Subjects

The subjects for this study were the inhabitants of three urban communities and six rural communities. The three urban communities were Ibadan (Municipal), Osogbo and Eruwa. The six rural communities were as well Oko, Erimo, Kuta, Tewure, Ogboro and Imini. The population of these communities put together was about 1,337,659. This was roughly 25.7% of the whole state population (5.2 million).

Sample size

983 subjects were selected for this study. The criterion for the distribution of the subjects was based on the population of the communities investigated.

In each of the rural communities investigated 0.5 percent of the population were selected as samples. However

the percentage distribution was varied for the urban communities i.e. 0.15 percent for the urban town (Eruwa, 0.55 per thousand for the urban city (Osogbo) and 0.5 per thousand for the large city (Ibadan).

The reasons for using different proportional representation for the urban and rural areas are thus: If the percentage used for rural localities was also employed for urban areas, Ibadan municipality might have to be served with 4,429 questionnaires. This would be unmanageable within the resources available to the researcher. Also if the corresponding ratio of 0.05 percent for Ibadan was employed for Imini, Imini might have to receive only 4 questionnaires which would be inadequate to correctly describe the health behaviour of the dwellers of Imini.

Another justifiable reason for varying the percentages in the different communities in relation to population was that urban centres with lower ratio of distribution per population took the largest share of the distribution of the whole questionnaires. Ibadan alone accounted for about 45% of the distribution while all the six rural communities shared only 28% out of the total questionnaires distributed.

Table 3 clearly indicates the mode of distribution of the subjects in each of the communities selected for this study.

TABLE 3

Distribution of Subjects

Community	Community population	No. of subjects selected	% of sample selection in relation to population	% in relation to total sample selected
Ibadan (Municipal)	885,859	443	0.05	45.1%
Osogbo	350,946	193	0.055	19.68%
Eruwa	45,287	68	0.15	6.83%
Oko	9,956	50	0.5	5.09%
Erimo	9,702	49	0.5	4.99%
Kuta	9,808	49	0.5	4.99%
Tewure	8,506	43	0.5	4.38%
Ogboro	8,965	45	0.5	4.59%
Imini	8,630	43	0.5	4.38%
TOTAL	1,337,659	983	0.073	100%

From table 3 it is indicated that the total subjects selected, 983, is about 0.073% of the total inhabitants of the localities investigated (1,337,659) population. This sample is also about 0.02% of the state population (5.2 million).

Festinger and Keatz (1966) indicated that much as the size of sample can affect the outcome of research findings, what matters most when dealing with population of this nature is the sampling technique. They also pointed out that gallop poll involving 20,000 subjects have been accurate

enough to predict the outcome of American election which involve more than 100 million voters.

Sampling Technique

The sampling technique explains how the questionnaires allocated to each locality were distributed within the locality for effective coverage of the characteristics of the population in the locality.

If it were possible to compile a complete list of the entire population that was investigated then random sampling would probably have been the best method to employ. However this was not possible. Cluster sampling was therefore employed for this study. This sampling technique incorporates the features of simple sampling and area sampling. The precise method of cluster sampling is the multistage type. In each community the first step involved area sample to select sampling units of manageable size or clusters. This corresponded to division of the communities into wards that were roughly equivalent in population - from each of these wards there was further categorisation into blocks or sub sample units. The particular adult resident who received the questionnaire was then selected (Ellingstad and Hemstra, 1974).

Research Instrument

The main research instrument in this study was questionnaire. The questionnaire were 983 in number. The questionnaire was constructed by the Researcher with the assistance of the supervisor. The face validity of the questionnaire was ascertained through a proper scruitiny by the lecturers in the department of Physical and Health Education and lecturers in other relevant discipline. Additional method of ensuring correct responses was the design of a vernacular version of the questionnaire for semi-illiterate and illiterate subjects.

The questionnaire was structured and it was designed to collect information from the subjects on the following areas:

(a) Personal data

(b) avenues sought for treatment in times of illness

(c) drug use behaviour

(d) nutritional behaviour

Pilot Testing

A pilot testing of the questionnaire was administered on selected subjects who were part of the target population but were not included in the sample selected. 50 subjects were chosen from Ibadan to represent urban dwellers while 25 subjects were chosen from Imini to represent rural communities. This test attempted to determine whether or not the questionnaire items possess the desired qualities of measurement and discriminability.

The pilot test also helped to correct ambiguities in the questionnaires.

Procedure for Data Collection

The questionnaire was administered with the aid of twenty selected assistants. The assistants were trained on how to administer the questionnaire especially to the illiterate subjects who required more explanation on some points. The questionnaire was collected on the spot, thus ensuring a hundred percent return.

Plan for Data Analysis

The result of the findings through the questionnaire was grouped under the two sets of variables that were investigated. The intra and inter rural and urban dwellers differences in the response was analysed. The analysis also indicated the influence of education, income, age, sex and marital status in the response.

The main statistical tool for the analysis was chisquare. Kerlinger (1979) emphatically stated that one of the best way of studying research designed to analyses relations is chisquare.

Pearson's product-moment coefficient of correlation is attributed to be the most powerful measure of correlation. Anova and T test are also powerful measure of variation in the samples. But these parametric statistics would require the calculation of total scores for each subject and mean of all the score. The scale used in this study for the design of the questionnaire were mainly nominal.

The data therefore do not lend itself to easy calculation. It is for example inappropriate to allocate value to those who patronise modern medicine as opposed to traditional pharmacopia since both are recognised as appropriate treatment avenues worl-widely and by World

Health Organisation. It was therefore not possible to get a single total score for each respondent from which the deviation for the average score could be calculated.

Besides, Anova and Pearson's product-moment coefficient of correlation do not lend themselves to easy calculation with equations with numerous summation signs and sub-scripts (Norcliffe, 1979).

Within the same non-parametric grouping Kolmogorov and Smirnov test could be described as more powerful than chisquare but it has the main disadvantages of not being useful for more than two samples and also of not being easy to understand.

Despite the short-coming of Chisquare as not being able to describe the direction of difference and not being as powerful as others identified earlier on it has advantages of being easy to understand, applied for more than two samples, and for skewed and abnormal distribution. Also samples can be calculated directly from raw score and not necessarily from percentages, mean and deviations. All these far outweigh its disadvantages for its application in this study. This is probably why it is the most frequently used of all statistical test (Norcliffe, 1979). Percentages and mean were as well used for simple description of the responses obtained from the questionnaire.

The use of these various tools gave more clarification to the findings.

Discussion of Findings

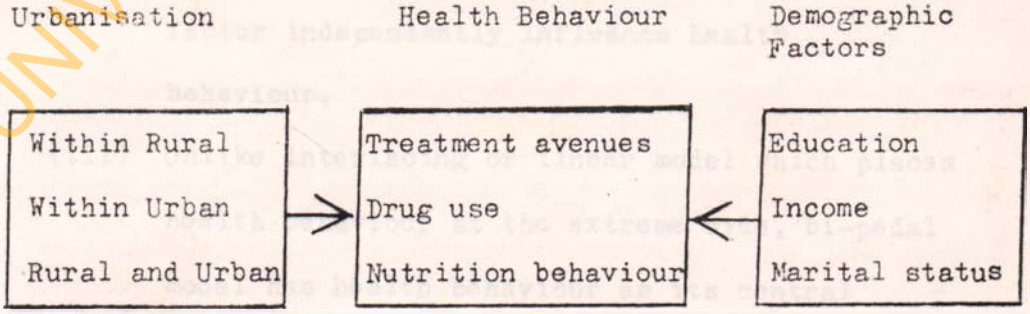
Findings were discussed in relation to the hypotheses that were formulated for the study. The findings were also compared with the literature reviewed.

Theoretical Model

A Theoretical model is essential to provide direction to the research. A study of influence of urbanisation and demographic factors on health behaviour could be carried out from many perspectives. This research was thus provided with the theoretical model described below as a means of elucidating the direction of the research.

Figure 1

BI-PEDAL MODEL OF RURAL AND URBAN HEALTH BEHAVIOUR



This model recognises two main factors influencing health behaviour, otherwise called pedals. These are

urbanisation and demographic factors. The influence of both of these factors are clearly provided in this model.

The main criticism of this model is that it does not provide interlacing/linear relationship between urbanisation and demographic factors as they both influence health behaviour. Much as this criticism is accepted, it is essential to note that the provision for interlacing or linear relationships is not the focus of this study. As a matter of fact the data obtained from the two factors could be compared to determine the relationship of the two. Thus, this model in addition to providing a basis for comparison of influence of urbanisation and demographic factors on health behaviour provides the following advantages.

(i) A detailed explanation of how urbanisation independently influence health behaviour.

(ii) An explanation of how demographic factor independently influence health behaviour.

(iii) Unlike interlacing or linear model which places health behaviour at the extreme side, bi-pedal model has health behaviour as its central focus as depicted in the diagram. Thus it would

serve much useful purpose to health educators and health planners rather than the former which serves better purpose to the regional geographers, demographers and sociologists.

CHAPTER FOUR

ANALYSIS OF DATA AND PRESENTATION OF FINDINGS

Introduction

The result of the investigation was presented under the following headings:-

(i) Analysis of responses between the rural and urban groups.

(ii) Analysis of responses within the rural group.

(iii) Analysis of responses within the urban group.

(iv) Analysis of influence of education on the responses.

(v) Analysis of influence of income on the responses.

(vi) Analysis of influence of age on the responses.

(vii) Analysis of influence of sex on the responses.

(viii) Analysis of influence of marital status on the responses.

(ix) Discussion of findings on treatment avenues.

(x) Discussion of findings on drug use.

(xi) Discussion of findings on nutrition.

TABLE 4

Distribution of responses by locations and personal data

	Code	Distribution	Group Percentage
Remote Rural Community	RRR	131	48
Urban Fringed Rural	UFR	144	52
Pre-Industrial Urban	PIU	68	10
Industrial Urban	IDU	192	27
Metropolitan Urban	MTT	443	63
Total Rural Community	WRR	275	28
Total Urban Community	WRU	703	72
Education (No Former Edu)	NFE	362	37
" Primary Edu.	PRY	215	22
" Secondary Edu.	SEC	401	41
Income (below ₦3,000)	LOW	705	72
" (above ₦3,000)	HIGH	273	28
Age (young adult)	YAD	303	31
" (middle adult)	MAD	396	41
" (old adult)	OAD	277	28
Sex (Male)	ML	486	50
" (Female)	FL	492	50
Marital Status (Single)	SGL	350	36
" " (Married)	MRD	628	64

The total number of questionnaires distributed was 983. All the questionnaires were returned in view of the method of distribution which was on the spot collection from the respondents. However, five questionnaires were rejected on the basis of improper filling. Among those five rejected questionnaires three were from Kuta, one from Osogbo while the last one was from Oko.

The results obtained were treated in percentages. Chisquare was used to determine the significant level of the responses obtained. The significant level was set at 0.05 for all the chisquare calculations. Each question was treated with chisquare. Each area of health behaviour was similarly treated. Lastly all the questions were taken as whole and subjected to chisquare test.

Questions 6:1 to 6:8 were designed to find out the treatment avenues sought by the respondents in times of illness. The avenues were modern medicine (6:1), native medicine (6:2), muslim afas (6:3), and spiritual church (6:4). In addition to the avenues that were gegerally sought during on set of illness questions were also designed to determine the level of acceptability of these four avenues during serious or prolonged illness. Thus question 6:5 took care of opinion on modern medicine,

while question 6:6 did the same on native medicine. Questions 6:4 and 6:8 were similarly designed for muslim afa and spiritual church respectively.

The analysis of result on responses obtained on treatment avenues sought in times of illness were presented to reflect the level of acceptance of each avenue for on set of illness, and for serious or prolonged illness. The average of these responses were thus held to indicate the actual level of possible acceptance of the treatment avenues.

Drug Use

Questions 7:1 to 7:7 were designed to find out the drug use behaviour of the respondents.

Question 7:1 sought to find out the attitude of respondents on self medication. Questions 7:2, 7:3 and 7:4 sought to know whether the respondents take sleepless pills, sleeping tablets, and stimulating drugs respectively. Questions 7:5 and 7:6 sought to find out whether the respondents drink alcohol and the types of alcohol they drink respectively. The last question (7:7) was designed to find out whether the respondents smoke or not.

Nutrition Behaviour

Questions 8:1 to 8:8 were designed to indicate the behaviour of the respondents on nutrition.

Questions 8:1 to 8:6 sought to find out the rate at which the respondents consume (a) dairy products, (b) animal protein, (c) plant proteins, (d) fruits, (e) carbohydrate foods and (f) vegetables respectively. Questions 8:7 and 8:8 also respectively sought to know whether the respondents patronise food vendors and for how long the respondents usually breast feed their babies.

The whole of the questionnaire is provided for in appendix 1 and also the responses to the questionnaire and the chisquare treatment of the responses by location and personal data is provided in appendix 2 - 9

Analysis of Responses Within the Rural and Urban groups

Sub Hypothesis (i) stated that "There would be no difference in the health behaviour between the rural and urban groups."

TABLE 5

Chisquare values of responses between rural and urban groups

	X^2	Table value	DF
Treatment avenues	36.2	35.172	23*
Drug use	42.23	31.410	20*
Nutrition	56.39	52.192	37*
Total response	134.82	104.13	82*

* significant at 0.05 significant level

Responses obtained for the whole rural locations on treatment avenues showed a significant difference from that of the whole urban locations. The calculated chisquare value of 36.2 was obtained against the table value of 35.172 at 23 degree of freedom. It was however noted that when the chisquare value of responses to all questions on treatment avenues were calculated, no difference was obtained on the responses to use of modern medicine and native medicine during on set of illness and prolonged or serious illness. Differences were however obtained for the use of spiritual church and muslim afa which indicated increase acceptance for these two avenues in urban locations.

Table 6 indicated that modern medicine was the most acceptable form of treatment (89) while others in order of

TABLE 6

Responses of treatment avenues sought by whole rural and urban groups in percentages

		On set of illness	Prolonged illness
Modern Medicine	Rural	90	87
	Urban	91	88
Native Medicine	Rural	58	61
	Urban	65	64
Afa	Rural	18	20
	Urban	32	38
Spiritual Church	Rural	24	23
	Urban	36	46

preference were native medicine (62), spiritual church (33) and muslim afa (27). A noteworthy observation was the increase in the acceptance of spiritual church and afa during prolonged illness in urban locations (appendix 4).

Variation in rural and urban location was indicated to significantly influence the responses on drug use in this study. (X^2 - 42,23; df 20; table value 31,410).

Responses to questions 7:1 (self medication), 7:4 (stimulants) and 7:7 (smoking) have all indicated significant differences within the two groups. More rural group involved in self medication, and use of stimulants

while more urban groups smoke cigarette.

There was also a significant difference in the type of alcoholic drinks consumed by the two groups. Urban group members were more diversified in their choice of drinks. The rural group however, took more of local alcohol like palm wine while they gave little recognition to hard liquor like gin or whisky.

More than 50% of the members of both groups also involved in self medication. Sleeping pill was next in importance to alcohol as the drugs commonly taken by up to half of the members of the two groups (appendix 4).

The whole rural and urban groups indicated significant difference in their responses on nutrition. The chisquare value of 56.39 was obtained against the table value of 52.192 at 37 degree of freedom.

Chisquare values of responses to each question also indicated significant differences in the responses to questions 8:5; 8:6; 8:7 and 8:8. However, no difference was obtained in the responses to questions 8:1, 8:2, 8:3, 8:4 and 8:8 which indicated that the consumption trend of dairy products, animal proteins, plant proteins and fruits were identical in the whole rural and urban groups and that both the rural and the urban groups identically breast feed their baby in terms of length of

period.

More urban group indicated to consume carbohydrate food on daily basis than their rural counterpart (Q8:5). More rural people however, eat vegetable on daily basis (Q8:6).

It was also observed that more urban group eat regularly in the canteen than the rural group (Q8:7).

Although the significance was not indicated by chisquare test in the responses to questions 8:1, 8:2, 8:3 and 8:4, it was noted that when the rate of the daily consumption of the food items listed in these questions were considered, rural group led in the consumption of fruits, plant protein and animal proteins while the urban group led in the consumption of dairy product.

The whole rural and urban group were also noted to consume dairy product, plant protein and fruits at low rate i.e. 20%, 40% and 30% respectively, (appendix 4).

When the responses on the health behaviour in respect of rural and urban groups was treated with chisquare test, the result indicated that hypothesis (i) which stated that "There would be no difference in the health behaviour within the rural and urban

groups" was invalid. The chisquare value of 134.82 was obtained against the table value of 104.13 at 82 degree of freedom.

Analysis of Responses Within the Rural Groups

Sub Hypothesis (ii) stated that "There would be no difference in the health behaviour within the rural dwellers."

TABLE 7

Chisquare Values of responses within rural groups

	X^2	Table Value	D.F.
Treatment avenues	20.8	35.172	23
Drug use	35.74	31.41	20*
Nutrition	88.02	52.192	37*
Total responses	158.92	104.13	82*

*Significant at 0.05 significant level

Responses obtained from remote rural (RRR) and Urban Fringed Rural (UFR) on treatment avenues indicated no significant difference when tested with chisquare i.e. obtained chisquare value was 20.8 as against the table value of 35.172 at 23 degree of freedom.

When responses to each question on treatment avenues were separately subjected to chisquare test no significant difference was obtained for all the questions in the two locations.

TABLE 8

Percentage distribution of responses on treatment avenues sought within rural group

		On set of Illness	Prolonged Illness
Modern medicine	Remote Rural	92	95
	Urban Fringed Rural	89	93
Native Medicine	Remote Rural	66	66
	Urban Fringed Rural	89	70
Muslim Afa	Remote Rural	9	12
	Urban Fringed Rural	10	18
Spiritual Church	Remote Rural	26	27
	Urban Fringed Rural	15	28

Table 8 indicated that the acceptance of the treatment avenues during on set of illness in both communities indicated 92.5% for modern medicine, 72.75% for native medicine, 24% for spiritual church and 12.25% for muslim afa. A noteworthy observation perhaps was the fact that there was increase

in acceptability of muslim afa and spiritual church as avenues for treatment during prolonged illness most especially in urban fringed rural communities (appendix 2).

The remote rural and urban fringed rural groups were significantly different on matters relating to drug use. This was indicated by the obtained chisquare value of 35.74 as against the table value of 31.410 at 20 degree of feedom. However, when responses on all questions on drug use were separately tested with chisquare, only questions 7:4 and 7:6, which respectively sought to know whether the respondents take stimulants and types of alcohol consumed, indicated significant difference between the remote rural and urban fringed rural groups. Urban fringed rural group took more of stimulating drugs than the remote rural group (appendix 2).

However, it was noted that more than 50% of both remote rural and urban fringed rural groups take drugs without doctor's recommendation and drink alcohol. Both groups as well drink beer and local drinks like palm wine more than hard liquor (gin, whisky, etc.) (appendix 2).

The remote rural and urban fringed rural groups indicated a significant difference in their nutrition behaviour. A chisquare value of 88.02 was obtained

against the table value of 52.192 at 37 degree of freedom.

Separate chisquare analysis for the questions under nutrition behaviour indicated significant result in response to questions 8:1, 8:5, 8:6 and 8:7 which respectively sought to find out the rate at which the respondents consume (a) dairy products (b) carbohydrate foods and (c) vegetables. The last question sought to find out whether the respondents patronise food sellers more than the urban fringed rural groups. The case is however reversed on the accounts of daily consumption of carbohydrate, dairy products and vegetable foods where the urban fringed rural group superseded the remote rural group, (appendix 2).

It is also noted that more than 50% of the two groups forming the rural group do not take dairy products, and fruits daily. More than 50% of the group as well eat with the food vendors although only about 10% of the group do this on a regular basis.

Hypothesis (ii) which stated that "There would be no difference in the health behaviour within the rural dwellers" was held to be invalid when responses on the three areas of health behaviour were collectively subjected to chisquare test. The chisquare value of 158.92 was

obtained against the table value of 104.13 at 82 degree of freedom.

This study has thus pointed out that there was difference in the health behaviour of the remote rural and urban fringed rural communities.

Analysis of Responses Within the Urban group

Sub Hypothesis (iii) stated that "There would be no difference in the health behaviour within the urban group.

TABLE 9

Chisquare Values of responses within urban groups

	X^2	Table Value	DF
Treatment avenues	143.03	61.656	46*
Drug Use	236.87	55.75	40*
Nutrition	309.31	96.21	75*
Total responses	691.21	194.81	164*

*Significant at 0.05 significant card

Result obtained within the pre-industrial, industrial and metropolitan urban groups in respect of avenues

sought for treatment during illness indicated a significant difference. The chisquare calculated value of 145.03 was obtained as against the table value of 61.656 at 46 degree of freedom.

Significant differences were obtained for all the questions except 6:7 and 6:8 which sought to determine the acceptability of muslim afa and spiritual church during serious or prolonged illness respectively.

Table 10 indicated that modern medicine was the most acceptable form of treatment in all the three locations (83.5). Others in order of preference were native medicine 65.33, spiritual church 29.8 and Muslim afa 25.

The activities of the spiritual church healers and muslim afas were significantly accepted in metropolitan urban and industrial urban. The general tendency was also the increased acceptance of spiritual church and

TABLE 10

Responses on treatment avenues sought within urban group in percentages

		On set of illness	Prolonged illness
Modern Medicine	PIU	97	79
	IDU	88	90
	MTT	59	88
Native Medicine	PIU	70	61
	IDU	69	66
	MTT	62	64
Afa	PIU	6	26
	IDU	19	26
	MTT	40	33
Spiritual Church	PIU	17	23
	IDU	28	42
	MTT	33	36

muslim afas as avenues for treatment during prolonged or serious illness. This was especially remarkable in pre-industrial urban location (appendix 3).

Responses obtained in this study indicated a significant difference within the pre-industrial, industrial and metropolitan urban groups on matters relating to drug use when subjected to chisquare test.

The value obtained, 236.87, was higher than the table value of 55.75 at 40 degree of freedom.

Also when responses on all the questions on drug use were separately subjected to chisquare test significant results was obtained for question 7:1, which sought to find out the attitude of the respondents towards self medication. Metropolitan urban group was found to indulge more in self medication while the pre-industrial group was least involved.

Responses to Question 7:3, which sought to know whether the respondents take sleeping tablets, also indicated significant difference within the group. Industrial urban group was the least involved in the use of sleeping tablets.

Responses to Question 7:7, which sought to know whether the respondents smoke or not, also indicated significant difference. The pre-industrial group was more involved in smoking than the other two groups. About 50% or more of the respondents in all the three groups indicated having been involved in self medication (appendix 3).

There was a significant difference in the responses obtained within the urban group comprising of pre-industrial, industrial and metropolitan urbans on matters relating to nutrition behaviour. The chisquare value of 309.31 was obtained against the table value of 96.21 at 75 degree of freedom.

When responses to the questions on nutrition were separately tested with chisquare significant difference was obtained. Industrial urban indicated highest daily consumption rate of dairy product (Q8:1) plant protein (8:3) and fruits (Q8:4). Pre-industrial urban however top the list on the daily consumption of animal protein (Q8:2), carbohydrates (Q8:5) and vegetable (Q8:6). In regular visit to food vendors the metropolitan urban top the list (Q8:7).

It was however, noted that generally the consumption rate of dairy product was low among the whole group, about 22% daily. Plant protein and fruits were as well consumed in a low percentage on daily basis by the whole group, (appendix 3).

Sub Hypothesis (iii) which stated that "There would be no difference in the health behaviour within the urban group" was not upheld in this study. The chisquare value of 691.21 was obtained against the table value of 194.81 at 164 degree of freedom when the questions on treatment avenues, drug use and nutrition were tested.

This study thus indicated that there was significant difference in the health behaviour within the urban group.

Analysis of Influence of Education on the responses

Sub Hypothesis (iv) stated that "Education would not influence the health behaviour of the rural and urban dwellers."

TABLE 11

Chisquare Values of Influence of Education on the responses

	X^2	Table Value	DF
Treatment avenues	88.87	61.656	46 *
Drug Use	86.52	55.70	40 *
Nutrition	93.38	96.21	75
Total responses	263.57	194.81	164 *

*Significant at 0.05 significant level

The responses obtained on treatment avenues for the illiterate group, semi-literate group and literate group showed a significant difference when subjected to chisquare test i.e. the calculated value of 83.87 was obtained against the table value of 61.656 at 46 degree of freedom.

Table 8 indicated that both the illiterate (NFE), semi-illiterate (PRY) and the literate (SEC) accepted modern medicine more than any other avenue for both on set of illness and prolonged or serious illness (89.5). In the same vein native medicine was next to modern medicine in order of acceptance among the three groups, although it was least accepted among the group with secondary education (33.5). This pattern was also the same for the acceptance of muslim afa which received 18% support from those groups with secondary education while other two

TABLE 12

Percentage distribution of responses on treatment avenues by level of Education

		On set of illness	Prolonged illness
Modern Medicine	NFE	87	92
	PRY	94	95
Native Medicine	NFE	54	72
	PRY	60	66
	SEC	12	55
Afa	NFE	23	27
	PRY	25	26
	SEC	15	21
Spiritual Church	NFE	26	32
	SEC	27	37
	PRY	32	34

groups had 25% each.

Spiritual church as avenue for treatment was better accepted than the muslim afa by the three groups. Spiritual church was more acceptable to the literate group (33%) as against 32% for semi illiterate and 29% for illiterate.

It was also noted that acceptability of native medicine, afa, and spiritual church as means of treatment increased generally when the illness was prolonged.

This trend was most remarkable for the literate group responses on native medicine and muslim afa (appendix 5).

Those who do not have formal education, those with primary education and those with secondary education and or above indicated a significant difference on their responses on matters relating to drug use. (X^2 86.52; df 40 table value - 55.70).

Chisquare test of responses to each question on drug use in respect of education indicated significant differences for questions 7:1 (self medication), 7:4 (use of stimulants) 7:5 (use of alcohol) and 7:7 (cigarette smoking).

Those groups with no formal education and those with primary education indulged more in self medication than those group who had secondary education and above. The consumption of stimulating drugs, alcohol and cigarette smoking followed the same pattern, (appendix 5).

The findings in this study indicated that education level did not influence the responses of the group towards nutrition. The chisquare value of 93.38 was obtained against the table value of 96.21 at 75 degree of freedom.

Also the illiterate, semi illiterate and educated groups have not indicated significant difference in their

response to questions 8:7, 8:2, 8:3, 8:6 and 8:8. The implication of this is that the three groups have semblance in their rate of consumption of dairy products, animal proteins, plant proteins and vegetables and that both similarly breast feed their baby in terms of time duration.

However, responses to questions 8:4, 8:5 and 8:7 indicated significant difference in the groups. The semi illiterate and the educated groups were noted to consume fruits on a more regular basis and also to patronise food canteen at a lesser rate than the illiterate groups. The illiterate group however, consume carbohydrate food on a more regular basis than the others, (appendix 6).

The sub-hypothesis (iv) which stated that "Education would not influence the health behaviour of the rural and urban dwellers" was found to be untrue from the chisquare score of 263.57 obtained against the table value of 194.81 at 164 degree of freedom. It was therefore accepted that Education significantly influenced the responses obtained.

Analysis of Influence of Income on the responses

Sub Hypothesis (v) stated that "Income would not influence the health behaviour of the rural and urban dwellers."

TABLE 13

Chisquare Values of Influence of Income on the responses

	X^2	Table Value	DF
Treatment avenues	23.58	35.172	23
Drug Use	55.71	31.410	20*
Nutrition	34.84	52.192	37
Total responses	114.13	104.13	82*

* Significant at 0.05 significant level.

The chisquare value of responses obtained for both the low income group and high income group on treatment avenues did not indicate a significant difference. The

calculated chisquare value of 23.58 was obtained as against the table value of 35.172 at 23 degree of freedom. However, when responses to questions 6:4 and 6:8 which sought to know the acceptability of spiritual church during (a) on set of illness and (b) prolonged or serious illness respectively were subjected to chisquare test, the two indicated significant difference for the score of low and high income groups. The high income group accepted spiritual church as avenue for treatment for on set of illness and prolonged illness more than the low income group.

Table 14 indicated that the acceptance of various treatment avenues was even for both modern medicine and native medicine but slightly different for afa and spiritual church which was more favourably considered by high income group. Another feature of the

TABLE 14

Percentage distribution of responses on treatment avenues by level of income

		On set of illness	Prolonged illness
Modern Medicine	Low	91	88
	High	92	83
Native Medicine	Low	63	65
	High	64	62
Afa	Low	27	35
	High	33	37
Spiritual Church	Low	33	34
	High	49	55

pattern of the responses was the increase in acceptance of native medicine, afa and spiritual church during prolonged or serious illness. The recognition of various treatment avenues follow the same pattern for both the high income and low income groups. The highest recognition was given to the modern medicine. Native medicine, spiritual church and muslim afa were respectively recognised in decreasing order of acceptance, (appendix 6).

The findings in this study indicated a significant difference in the attitude of the low income group and the high income group towards drug use. The X^2 value of 55.71 was obtained against the table value of 31.410 at

20 df.

Separate test of the significance of responses to questions on drug use on the basis of income differences indicated significant differences in Questions 7:3 (use of sleeping tablets), 7:4 (use of stimulating drugs) and 7:6 (types of alcohol consumed).

High income group indulged more in consumption of sleeping tablets while the low income group indulged more in consumption of stimulating drugs.

There was no significant difference in the rate of consumption of alcohol by the two groups, however, there was a significant difference in the types of alcohol drinks consumed by the two groups. The high income group drink more of hard liquor and while low income group members indulged more in drinking local alcohol (appendix 6).

Income was not indicated as a factor affecting the responses on nutrition in this study. The chisquare value of 34.84 was obtained against the table value of 52.192 at 37 degree of freedom.

Similarly responses to all the questions on nutrition did not show any significant difference when separately tested with chisquare. But reasonable percentage of high income group (70%) take animal protein on a daily basis

than the low income group (64%). The reverse was the case of the daily consumption rate of plant protein when 45% of the low income group indicated this as opposed to the 32% obtained for the high income group. But both were also noted to consume plant protein at a low rate on a daily basis, (appendix 6).

The chisquare value of 114.13 was obtained when all the questions were subjected to chisquare test as against the table value of 104.13 at 82 degree of freedom. Thus from this hypothesis (v) which stated that "Income would not influence the health behaviour of the rural and urban dwellers" was found to be incorrect and rejected.

Analysis of Influence of Age on the responses

Sub Hypothesis (vi) stated that "Age would not influence the health behaviour of the rural and urban dwellers."

TABLE 15

Chisquare Values of Influence of Age on the responses

	X^2	Table Value	DF
Treatment avenues	52.24	61.656	46
Drug Use	45.86	55.70	40
Nutrition	104.03	96.21	75 *
Total responses	202.13	194.81	164 *

*Significant at 0.05 significant level.

Age was not indicated to be a significant factor on treatment avenues from the result obtained in this study. The responses to each question in various age grade, i.e. young adult, middle adult and old adult groups were subjected to chisquare test. All the results obtained indicated no significant difference. The whole response on treatment avenues when subjected to the

chisquare test indicated similar result. The calculated value of chisquare was 52.24 as against the table value of 61.656 at 46 degree of freedom. The result obtained under age differences indicated general tendency to accept modern medicine, muslim afa and spiritual church more than before, when illness was serious or prolonged. The pattern of result was as well the same for others. In the order of recognition of importance modern medicine, native medicine, spiritual church and muslim afas were respectively recognised but for the young adult who accorded the least recognition to the spiritual church.

Table 10 clearly indicated the pattern of distribution of responses in respect of age differences (appendix 7).

The findings in this study failed to indicate any significant difference in the behaviour of respondents towards drug use on the basis of age differences. The X^2 value obtained was 45.86 as against the table value of 55.70 at 40 degree of freedom. No significant difference was also observed on separate chisquare test of the questions on drug use on the basis of age differences except for question 7:7 which sought to find out the

TABLE 16

Percentage distribution of responses on treatment avenues by age level

		On set of illness	Prolonged illness
Modern Medicine	YAD	86	88
	MAD	86	88
	OAD	86	80
Native Medicine	YAD	68	61
	MAD	71	59
	OAD	73	67
Afas	YAD	35	42
	MAD	25	27
	OAD	26	25
Spiritual Church	YAD	34	35
	MAD	33	38
	OAD	28	41

smoking behaviour of the respondents. Young adults who do not smoke were less in number than those middle and old adults, also more young adults were regular smokers than the middle and old adult, (appendix 7).

The total responses obtained on nutrition indicated significant difference on the basis of age differences. The chisquare value of 104.03 was obtained against the table value of 96.21 at 75 degree of freedom.

Similarly responses to each question indicated significant difference in questions 8:1 (dairy products)

8:5 (carbohydrate), and 8:8 (length of breast feeding). The young adults were noted to consume dairy products more on a daily basis than the middle and old adults. Similarly, old adults were found to consume least on a daily basis of the following food-stuff (a) carbohydrate (b) vegetables (c) fruits (d) and animal proteins although only that of carbohydrate was significantly proved with chisquare test. More old adults were also found to breast feed their babies up to a year and above than the other age group, (appendix 7).

When all the responses obtained on health behaviour areas under investigation in respect of age difference were subjected to chisquare test the value of 202.13 was obtained against the table value of 194.81 at 164 degree of freedom.

Sub Hypothesis (vi) which stated that "Age would not influence the health behaviour of the rural and urban dwellers" was consequently rejected.

Analysis of Influence of Sex on the responses

Sub Hypothesis (vii) stated that "Sex would not influence the health behaviour of the rural and urban dwellers."

TABLE 17

Chisquare Values of Influence of Sex on the responses

	X^2	Table Value	DF
Treatment avenues	14.79	35.172	23
Drug Use	58.55	31.41	20*
Nutrition	24.56	52.192	27
Total responses	99.70	104.13	82

*significant at 0.05 significant level.

The calculated chisquare value of responses on treatment avenues under male and female grouping indicated no significant difference. The chisquare value of 14.79 was obtained against the table value of 35.172 at 23 degree of freedom. The chisquare analysis of responses to each question was done as well. No response to the questions under treatment avenue indicated a significant difference between the male and female sex. Both groups considered, in decreasing order of importance, modern medicine, native medicine, spiritual church and afa as treatment avenues. However, more male accepted modern medicine and native medicine and muslim afa than female. Female also indicated more approval for spiritual church than the male.

Another general feature of the distribution was that there were no remarkable changes in support of treatment avenues when illness became prolonged except in the case of female group as indicated in the increase in their support for spiritual church (appendix 8).

Sex variation was indicated to significantly influence the behaviour of the respondents towards drug use in this study. The X^2 value of 58.55 was obtained against the table value of 31.410 at 20 degree of freedom.

TABLE 18

Percentage distribution of responses on treatment avenues by sex differences

		On set of illness	Prolonged illness
Modern Medicine	Male	92	90
	Female	87	85
Native Medicine	Male	71	69
	Female	57	58
Muslim Afa	Male	30	29
	Female	24	24
Spiritual Church	Male	32	35
	Female	34	43

This study also significantly indicated that more men take stimulating drugs than women (Question 7:4) and that this was true of alcohol consumption as well (Question 7:5). Significant difference was noted for the smoking behaviour of both the male and the female respondents. Male group indulged more in smoking than the female group.

Amoung those who drink alcohol, the female members indicated to prefer hard liquor more than their male counterparts, although both groups favoured local drinks and beer more than hard liquor (appendix 8).

This study did not indicate sex as a significant factor that influence the responses on nutrition. The total chisquare value of 24.56 was obtained against the table value of 52.192 at 27 degree of freedom.

In all the questions asked on nutrition, it was only in question 8:7 that a significant difference was found in the responses of male and female group. More male indicated to patronise canteen both on a regular basis and ocassionally.

Although not indicated as significant by chisquare test, responses to questions 8:1 and 8:5 have indicated that female groups consume dairy products and carbohydrate food on a more regular basis when compared with male groups (appendix 8).

Sub Hypothesis (vii) which stated that "Sex would not influence the health behaviour of the rural and urban dwellers" was found to be valid in this study.

The responses obtained from the chisquare test was 99.70 against the table value of 104.13 at 82 degree of freedom.

Analysis of Influence of Marital Status on the responses

Sub Hypothesis (viii) stated that "Marital Status would not influence the health behaviour of the rural and urban dwellers."

Marital status was not indicated as a significant factor influencing attitude of respondents to treatment avenues. The calculated chisquare value obtained was 19.7 as against the table value of 35.172 at 23 degree of freedom. Response to each of the questions under treatment avenues for both the single group and married group did not show any significant difference in their chisquare values. The preference for treatment avenues follow the usual pattern whereby the modern medicine was accorded the highest recognition while native medicine, spiritual church and afa were recognised in descending order of preference.

A remarkable feature of the responses on marital status distribution was the fact that there was significant increase preference for afa and spiritual church as avenues for treatment when the illness was prolonged most especially for married group (appendix 9).

TABLE 19

Chisquare Values of Influence of Marital Status on the responses

	X^2	Table Value	DF
Treatment avenues	19.7	35.172	23
Drug Use	14.73	31.410	20
Nutrition	17.13	52.192	37
Total responses	57.55	104.13	82

No significant result at 0.05 significant level

TABLE 20

Percentage distribution of responses on treatment avenues by marital status

		On set of illness	Prolonged illness
Modern Medicine	Single	91	94
	Married	91	88
Native Medicine	Single	65	68
	Married	65	62
Afa	Single	13	27
	Married	22	34
Spiritual Church	Single	33	37
	Married	24	36

Marital status was not indicated as a significant factor influencing the behaviour of the respondents on drug use. The chisquare value of 14.73 was obtained against the table value of 31.410 at 20 df.

In a similar manner the separate chisquare test of each of the responses to the questions on drug use did not show any significant difference between the responses of single and married respondents, (appendix 9).

Marital status was indicated to be a significant factor that influence the whole responses obtained

on nutrition in this study. The chisquare value of 17.13 was obtained against the table value of 52.192 at 37 degree of freedom.

The chisquare test of all the questions also indicated no difference between the responses of the married and single groups. However questions 8:7 which sought to find out the use of food canteen by the respondents showed a variation in the responses for the married and the single groups, although not to a significant level as pointed out by the chisquare value of 4.88 as against the table value of 5.991 at 2 degree of freedom. Single group however indicated to patronise food canteen more often than the married group. This was also true of the ocassional use of the food canteen. More married group also indicated not eating in the food canteen (appendix 9).

Sub Hypothesis (viii) which stated that "Marital status would not influence the health behaviour of the rural and urban dwellers" was found to be valid as a result of the chisquare test of all the responses obtained on health behaviour in respect of the married and unmarried groups.

The chisquare value of 51.55 was obtained against

the table value of 104.13 at 82 degree of freedom.

The position of all the sub-hypotheses in this study are thus as follow:

Sub-hypothesis (iii) which indicated that "There would be no difference between the rural and urban dwellers" was rejected.

Sub-hypothesis (i) which stated that "There would be no difference in the health behaviour within the rural dwellers" was also rejected.

Sub-hypothesis (ii) which stated that "There would be no difference in the health behaviour within the urban dwellers" was as well rejected.

Sub-hypothesis (iv) which expressed that "Education would not influence the health behaviour of the rural and urban dwellers" was not upheld.

Sub-hypothesis (v) which pointed out that "Income would not influence the health behaviour of the rural and urban dwellers" was as well rejected.

Sub-hypothesis (vi) which stated that "Age would not influence the health behaviour of the rural and urban dwellers" was found to be untrue and rejected.

Sub-hypothesis (vii) which indicated that "Sex would not influence the health behaviour of the rural and urban dwellers" was however held to be valid.

Sub-hypothesis (viii) which indicated that "Marital status would not influence the health behaviour of the rural and urban dwellers" was also found to be true and upheld in this study.

The main hypotheses were two in number. The first main hypothesis pointed out that "Urbanisation would not influence the health behaviour of the rural and urban dwellers in Oyo State with regards to avenues sought for treatment in times of ill health, drug use and nutrition behaviour."

All the three sub-hypotheses in respect of urbanisation (i – iii) indicated significant differences and consequently the first main hypothesis was held to be invalid and the position of the study was that urbanisation significantly influenced the health behaviour characteristics investigated.

The second main hypothesis was that "The health behaviour of rural and urban dwellers would not be influenced by demographic factors."

The first three out of the five sub-hypotheses established in respect of this main hypothesis were found to be untrue while the last two were upheld in this study. This would be taken to mean that the second main hypothesis was untrue up to about 60%. In essence the second main hypothesis was also rejected.

DISCUSSIONS

The discussions of findings were presented under three headings, namely:

(a) Treatment avenues

(b) Drug use

(c) Nutrition

Discussion of responses on Treatment avenues

Udoh (1981) listed three avenues usually patronised by the Nigerians in times of illness which are:

(a) Modern medicine

(b) Traditional medicine

(c) Church healing

Adejumo (1982) however, identified four main avenues sought for treatment which ar namely: the modern medicine, the traditional medicine, the spiritual church healing and the muslim priest in order of acceptance among the inhabitants of Oyo.

This study has indicated that modern medicine, native medicine, spiritual church healing and muslim afas are recognised in descending order of importance as treatment avenues, thus upholding the findings of Adejumo, 1982.

Saunders (1977) pointed out that rural culture is characterised by being socially conservative, slow changing and traditional. He as well described urban culture as stressing an openness to new experiences and increasing independence from traditional practices. One would take these to mean that urban people would likely take to newer avenues for treatment rather than the traditional means which is the native medicine. This study indicated that there was a significant difference between the behaviour of rural samples and urban samples towards avenues sought for treatment in times of illness. Spiritual church and afa which are new treatment avenues, were more acceptable to urban groups than rural groups.

Ajaegbu (1968) and Mabogunje (1968) mentioned that urban fringed rural communities are more likely to be influenced than remote rural communities. In this study, no significant difference was found between the urban fringed rural group and the remote rural group on their attitude towards treatment avenues in general. However, an increase in acceptance of muslim afa and spiritual church as treatment avenues during prolonged illness was observed. A comparison of the results obtained in the pre-industrial, industrial and metro-

politan groups showed a significant difference in respect of obtained chisquare value of 145.03 as against the table value of 61.656 at 46 degree of freedom. Spiritual church and afa were more recognised in the metropolitan urban and industrial urban, than in the pre-industrial urban as treatment avenues during prolonged illness.

Brieger (1981), and Adejumo (1982) have pointed out such factors as sex, age, educational level and income as influencing choice of treatment avenues by individual in times of illness. Oyediran (1974) and Young (1966) particularly indicated that those people with high educational level would tend to accept modern health facilities while those with low educational status would not accept it as much. The findings in this study upheld this claim because a significant difference was obtained for education as a factor of the treatment avenue with a chisquare value of 83.87 as against the table value of 61.65 at 46 degree of freedom.

Income was not however, indicated as a significant factor influencing the choice of treatment avenues. This is contrary to the findings of Frazier et al (1977)

and Edington et al (1979). But it upheld the findings of Najman (1981).

While Luft (1966), Wemat and Kraus (1973) and Vebecky, Kelly and Maunan (1972) indicated that age would be a factor influencing health behaviour, this study indicated that age would at least not influence the selection of treatment avenues.

Similarly, the findings in this study on treatment avenues contradict that of Walker Junior (1979) who indicated that sex would affect health behaviour. However, it supports the findings of Adejumo (1982) who indicated that women are likely to draw more assurance from spiritual forms of treatment than from modern medicine.

Baeta (1967) mentioned that a case of ill-health simply falls to be cured and it does not matter in the least by what means the cure is obtained. Adejumo (1982) also agreed with this findings that literate, illiterate, male, female, old and young samples in his research significantly indicated they would attempt any means for cure, if their illness seem to be prolonged. Findings in this research totally fall in line with this claim as indicated in tables 6, 7, 8, 9 and 10.

Discussion of responses on drug use

Ogundele (1983) is of the opinion that the use of sleeping pills is due to inability to sleep naturally as a result of anxiety and stress of modern life. This may be taken to imply that in urban areas, where the stress of modern life is deeply rooted, there is tendency for more people to indulge in the use of sleeping pills and the like.

Ifedi (1984) would also want us to believe that quackery and self medication are more of a feature of the rural areas than urban areas on the ground that rural areas comprise of more illiterate population.

This study indicated significant difference in the drug behaviour of rural and urban groups. In line with Ifedi's opinion, more rural group involved in self medication and the use of stimulants, while more urban group smoke cigarette, thus, supporting as well the claim of Ogundele (1983) that cigarette smoking is more rampant in urban areas. Alcohol consumption, self medication and the use of sleeping pills were found to be rampant among the two groups. The responses obtained for the pre-industrial, industrial and metropolitan urbans followed similar pattern. Significant

difference was indicated on the total responses on drug use. However, the metropolitan group were more involved in self medication than the others. Industrial urban group also involved least on the use of sleeping tablets. In the comparison of both the remote rural group and the urban fringe rural group on drug use, a significant difference was observed in the total response to the questions. More urban fringed rural group were however, found to take stimulating drug than the remote rural group.

Whereas Peek et al (1978) mentioned that alcohol consumption can be expected to be more prevalent among urban residents and that urban size is positively correlated with alcohol use, in this study, no significant difference was obtained in the comparison of the drinking habits of the whole rural and urban groups and in as well within the different urban size and the different rural locations. However, significant difference was observed on the type of alcohol drinks taken by the groups. Consumption of hard liquor, and beer were more prevalent in urban locations while the rural locations consumed more of the locally made drinks like palm wine etc.

Illiteracy and poverty were identified as contributing factors to self medication, and quackery by Ogundele (1983). This is supported by the findings in this study. These groups with no formal education and primary education were observed to involve more in self medication, use of stimulating drugs, alcohol consumption and smoking, (appendix 5).

This study indicated no significant difference on the drug behaviour of the respondents with respect to age differences. However, significant difference was noted on the smoking of cigarette. The young adult group were found to be more regular and ocassional smokers than in the middle and old adult groups. Contrary to the opinion of Anderson (1982) no significant difference was observed for the behaviour of adolescents and adults on the consumption of alcohol and drug abuse.

Brooks and Brooks (1979) are of the opinion that marriage is associated with good health and less risk taking. This is not upheld by this research. Both married and single groups were noted to exhibit the same characteristics on the basis of attitude to drug use. They were both equally involved in self medication and alcohol consumption.

Discussion of responses on nutrition

This study has indicated significant differences in the responses on nutrition on the basis of location differences. Fruits, plant proteins and animal proteins were consumed at a higher rate in rural group while the urban group consume dairy products on a more regular basis. It is however difficult to conclude from the findings in this study that the opinion of Own (1973) is valid. Owen opined that nutritional disorder is much higher in villages than in towns. However, the findings in this study justify the conclusion drawn by Igbeare (1984) that our local diet comprise mainly of carbohydrates.

Findings in this study have indicated that the illiterate group consume carbohydrate more than the educated group while the educated group consume fruits on a more regular basis. This has held to be true the factor of ignorance on food selection as pointed out by Igbeare (1984). Igbeare's opinion that choice of food is influenced by income is partially held to be true in this study. Animal protein is largely consumed by the high income group, but plant protein is as well consumed largely by the low income group. Infact, this study has not identified any significant difference in

the total responses of the low and high income groups on nutrition.

The widely held notion that married couple would eat more satisfactorily is not substantiated in this study. Both married and single groups indicated no difference on their total responses to questions on nutrition.

Ekeh (1980) observed that a short length of breast feeding is adopted by the urban people.

Bernard (1980) expressed the same opinion. The findings in this study did not indicate any significant difference between the whole urban group and the rural group in their child weaning habit. But when responses for those who breast feed up to one year were considered the rural group indicated higher percentage (35%) than the urban group (33%). The situation within the urban groups was however more explicit. These in the pre-industrial area (44%) breast feed longer than those in the industrial area (30%) and those in the metropolitan area (32%). This finding is similar to that of the study conducted by the Federal Office of Statistics in four states of the federation namely: Borno, Cross River, Kano and Lagos which indicated less significant differences in the breast feeding habit of both urban and

rural communities for babies under twelve months of age but significant difference is obtained in favour of rural communities taking to breast feeding of babies after twelve months. Similar result is obtained in this study for educated group. Illiterate percentage who breast feed after one year is 41% compared with the semi-illiterate 27% and the educated group 32%. The opinion of Bernard (1980) that the average length of nursing steadily increases with age is similar to the findings in this study. Significant difference was found between the age differences and duration of breast feeding (X^2 value of 15.62, table value of 15,503 at 8 df.) The young adult who breast feed up to a year were 34% while the middle adult were 36% and the old adult were 45%. Similarly the low income group who breast feed for more than one year were 34% while the figure for the high income groups was 27%. Thus Ekeh's claim that short duration of period of breast feeding among the educated mothers and those with high income can be explained with the reason that they can provide the nutritionally adequate weaning diets and the correct quantity of feeds with the necessary sterile conditions is justified with the above findings.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary

This study was designed to find out the influence of urbanisation and demographic factors on the health behaviour of rural and urban dwellers in Oyo State, Nigeria.

The samples for this study were drawn from three urban towns and six rural communities. The main research tool was questionnaire and the method of distribution was clustered sampling.

Chisquare and percentages were the main statistical tool for analysing the findings in this study.

The findings were classified into eight groups namely: (a) Rural and Urban responses (b) Within rural responses (c) Within urban responses (d) Influence of Education (e) Influence of income (f) Influence of age (g) Influence of sex and (h) Influence of marital status.

The findings were however discussed under the three areas of health behaviour investigated, namely: (a) Treatment avenues (b) Drug use and (c) Nutrition.

The brief summary of findings was provided in table 13. In all six out of the eight sub-hypotheses formulated were rejected. All the three sub-hypotheses under urbanisation were found to be invalid while three out of five of the sub-hypotheses under demographic factors were as well invalid. In essence the main hypothesis (a) which held that urbanisation would not influence health behaviour was absolutely wrong and thus rejected. At the same time the main hypothesis (b) which held that demographic factors would not influence health behaviour was invalid because three out of five of the sub-hypotheses under it were invalid.

The deduction here was that urbanisation would relatively play a more significant role in finfluencing health behaviour than demographic factors. This deduction was further polished when the responses obtained in respect of each area of health behaviour were separately considered. Eight out of nine cases (99.9%) indicated significant difference in favour of urbanisation characteristics while five out of fifteen cases (33.3%) indicated significant difference in favour of demographic factors.

Other than the consideration of the number of sub-hypotheses that were not upheld under demographic

factors (3 out of 5) the acceptance of demographic factors as significantly influencing health behaviour would have been contested if the decision was based on the number of specific health behaviours areas that held it to be significant (5 out of 15).

TABLE 21

Summary of findings by location and demographic factors

		No difference	Difference	Hypothesis Valid	Hypothesis Rejected
Rural & Urban	Treatment Avenues				
	Drug		X		
	Nutrition		X		X
Within Rural	Treatment Avenues	X	X		
	Drug Use		X		
	Nutrition		X		X
Within Urban	Treatment Avenues		X		
	Drug Use		X		
	Nutrition		X		X
Education	Treatment Avenues		X		
	Drug Use		X		
	Nutrition	X			X
Income	Treatment Avenues	X			
	Drug Use		X		
	Nutrition	X			X
Age	Treatment Avenues	X			
	Drug Use	X			
	Nutrition		X		X
Sex	Treatment Avenues	X			
	Drug Use		X		
	Nutrition	X		X	
Marital Status	Treatment Avenues	X			
	Drug Use	X			
	Nutrition	X		X	
Total		11	13	2	6

Conclusion

Urbanisation and demographic factors were indicated to influence the health behaviour of the rural and urban dwellers in Oyo State. However, location was noted to play a more predominant role in determining the health behaviour of the sample group. The implication of this would mean that urbanisation would be more accountable in determining the health behaviour of the rural and urban dwellers in Oyo State.

In addition, modern medicine, native medicine, muslim afa, and spiritual church were acceptable as avenues for treatment during illness by the rural and urban dwellers in Oyo State.

Self medication, alcohol consumption and cigarette smoking were widely practised among the rural and urban dwellers in Oyo State.

The rural and urban communities in Oyo State could be described as not fully realising the importance of balanced diet especially as it relates to consumption of adequate dairy products, plant proteins and fruits as these were indicated not to be regularly consumed by the respondents.

This research indicated that Fisher (1978), Miller and Crader (1979) were quite right in claiming that there are significant rural and urban differences and at the same time disagreed with the claim of Miller and Luloff (1981) who indicated that personal demographic features such as religion, income, and age may have more influence on one's behaviour more than a person's place of residence be it in urban or rural.

The findings in this study also contradicted that of Paul (1966), Van Es and Brown (1974) who suggested that there are no significant difference in rural urban cultural attitude.

Brieger (1981) and Adejumo (1982) and other researchers who asserted that demographic factors would be factors influencing health behaviour have been proved to be correct by the findings in this study.

Recommendations

Ikponwosa (1984) opined that many citizens persist in undesirable health behaviour because they feel that certain factors make the alternatives difficult or inaccessible. The need to promote desirable health habits among the citizens would therefore rest on three important factors, namely: (a) provision of essential

health facilities, personnel and programmes (b) provision of health education, and (c) provision of force to ensure the practice of desirable health habits.

The suggestions given in this study are therefore brought under these three headings.

(A) Provision of essential health facilities, Personnel and Programme

1. Government should encourage the co-existence and co-operation of the orthodox and native medicine so as to cater for the needs of the largest percentage of the people in the rural areas.
2. Government should establish more medical facilities and provide more medical personnel, especially in the rural areas. This would go a long way to check drug abuse and self medication.
3. Government should speed up the programme of accelerated food production as means of making food abundantly available to the citizens.
4. Government should regularly evaluate the nutritional status of the state citizens.
5. Statistics department of the government establishments should be encouraged to be more functional.

6. Self help project undertaken by various communities in respect of provision of health facilities should be encouraged by the government.

7. Further researches and programmes aimed at understanding and influencing human behaviour should be carried out as part of the means of providing public health awareness.

(B) Provision of health education.

1. Government should strengthen the health education unit of the ministry of health and local government health department to check undesirable health practices such as patronage of quack doctors, self medication, alcohol abuse, poor nutritional habit etc.

2. Public health educators should go beyond the printing of posters and didatic health information release on mass media, and rather, health campaign, film show, symposia, demonstration, home visit etc. should be used as avenues for providing health education to the public.

3. The effort of the school, family and public health educators should be concerted and co-ordinated to reinforce health education in the three settings.

4. Health education should be introduced in the curriculum of secondary schools to provide knowledge and influence attitude and practices of the students.

5. Church, mosques and other religious and social institutions should be more positively involved in the moral upbringing of the youths as a means of checking undesirable social practices like prostitution, divorce, drug abuse, uncontrollable birth etc. They could also be avenues for other areas of health education as in control of epidemics.

(C) Provision of force

1. Public health inspection department should be strengthened to function in both the urban and rural areas.

2. Government should control the issuance of patient medicine and check the abuse of sales of dangerous drug over the canter by providing more pharmaceutical inspectors.

3. Government should regulate the activities of the food vendors and supervise the food canteens.

4. Government should control the establishment of alcohol producing industries and should also legislate against the purchase of alcohol drink

by the minor.

5. Heavy taxation should be imposed on alcohol and cigarette-producing industries to discourage the consumption of their products.

Above all the need for proper health behaviour is not only a problem for the government and her agencies, the individuals need to maintain hygienic living as the practice of individual would undoubtedly affect the health of the whole community and the state, after all individuals make up the state.

Suggestions for further research

In view of the already stated delimitations and limitations (chapter 1) of the study, there is need to carry out studies on:

The influence of demographic factors on the health behaviour of the rural and urban communities in Oyo State, i.e. this study only took the samples as a whole for the treatment of the demographic factors.

Inter-lacing the relationship between demographic factors and urbanisation will go a long way to understanding the complexity of the human behaviour in areas of health. The knowledge of this would undoubtedly help in providing appropriate intervention to deter

inappropriate behaviour and enhance desirable ones.

Other areas of health behaviour such as personal hygiene, sanitation, sex and attitude towards recreation are also recommended for investigation. It is hoped that knowledge of these would provide a better understanding of health behaviour in all its ramifications.

BIBLIOGRAPHY

JOURNALS, MAGAZINES

Abiola, M. K. O.: Problems of alcoholism in Nigeria. New Nigeria, December, 1984.

Abumere: Residential Differential in Ibadan. Some Sketches of an explanation, Ibadan Region, Department of Geography, University of Ibadan, 1982.

Adejumo, M. A.: Superstition and Health. Departmental Seminar, Department of Physical and Health Education, Unibadan, 1981.

Ademuwagun, Z. A.: "Alafia" the Yoruba Concept of Health Implication for Health Education. International Journal of Health Education, Volume XXI, No. 2, 1978, Page 95.

Adeniyi, J. P.: Smoking and Health - Personal Communication, Department Seminar University of Ibadan, Department of Guidance and Counselling, 1980.

Ajani, L.: Salient aspects of Public Health in Developing Countries. Inter-Campus Seminar, Oyo State Colleges of Education, December 3, 1983.

Akinbanjo, R.: Check Population Growth, Daily Times November 1, 1984, Page 5.

Akibue, I.: Dangers of Self Medication. National Concord October 27, 1984, Page 3.

Akinboye, J. O.: Smoking and Fitness. Department Seminar, Department of Guidance and Counselling, University of Ibadan, July, 1981.

Akintola, F. O. and O. Areola: Domestic Water Consumption in Urban Area, A Case Study in Ibadan City, Nigeria. Water Supply and Management, Volume 4, 1980, Pages 313 - 321.

Areola, O. and F. O. Akintola: Water Supply Ibadan Region, Department of Geography, University of Ibadan, 1982.

Arowolo, Bimbo: Personal Hygiene First, Times International, Volume 5, No. 50, Sunday, September 9, 1984, Page 8.

Asch, S. E.: Social Psychology, 1964, Pages 450 - 501.

Ludu, J.: Celestial Church, A Sanctuary For Divine Healing, Lagos Weekend, May 11, 1984.

Lyeni, F.: The Metropolitan Area of Ibadan, Its Growth and Structure Ibadan Region, Department of Geography, University of Ibadan, 1982.

Baeta, C. G.: Christianity and Healing Ibadan. Journal of Religious Studies, 1/2 December, 1967, Page 51.

Belloc, N. B. and L. Breslow: Relationship of Physical Health Status and Health Practices, Preventive Medicine 1, No. 3, August, 1972, Pages 415 - 421.

Bernard, J. M.: Fertility and Breast Feeding in Africa African Environment No. 14 - 15 - 16, Volumes 2,3,4, 1980.

Bolaji, I.: Religion, Magic and Medicine with Special Reference to Africa. Ibadan Journal of Religious Studies, 1/2 December, 1967, Page 63.

Bornstin, P. H. T. P., Carmody, H, Relinger and C. J. Zohn: Reduction of Smoking Behaviour. A Multivariable Treatment Package and Programming of Response Maintenance. The Psychological Record Volume 27, 1977, Pages 733 - 741.

Brieger, W. R. and Adeniyi, J. D.: Urban Community Health Education in Africa. International Quaterly of Community Health Education, 2/2/1982.

Cartwright, D. and A. Zanders: Group Dynamics, 1967, Pages 49 - 60, 1967.

Cisse, B. M.: Towards a Participatory Development in the Urban Environment, African Environment, No. 47 - 79, December, 1979.

Comlan, L. A. and M. D. Quenum: Humanism and Development - The Health Development of African Communities. Afro Technical Papers, No. 15, W.H.O. Brazzaville, 1979, Page 28.

Deschamps, D. J.: Pregnancy in Adolescent Child in the Tropics. International Children Centre, Paris, No. 93, 1974.

Edington, E. M. and N. 1. Odebiyi: Cancer and Ageing in Ibadan. Sociological abstract, Volume 27/3, 1979, Page 864.

Editorial Comment African Environment, Volume 1, No. 4, 1975.

Editorial Comment National Concord, October 23, 1984.

Editorial Comment, "Towards utilizing traditional Physicians, National Concord, June 27, 1984.

Ekeh, H. E.: Some Major Obstacles to the Practice of Sound Nutrition in Nigeria. International Journal of Health Education, Vol. 3, 1980, Page 4

Ellenbogen, B. L. and G. O. Lowe: Health Care 'Styles' in Rural and Urban Areas. Rural Sociology, Volume 33, No. 3, September, 1968, Page 300.

Ellis, M. J.: Play and Its Theories Re-examined, Parks and Recreation, August, 1971, Page 51.

Emafo, P.: Importation of Drugs in Nigeria. Daily Times, November 21, 1984, Page 5.

England, R.: More Myths in International Health Planning. American Journal of Public Health, Vol. 68, No. 2, February, 1978, Page 153.

Falowick, J. K.: Social Determinants of Alcohol Consumption among the Polish Youths. Sociology abstract, August, 1970, Page 789.

Faniran, A.: Solid Waste Management - A Preliminary Survey of Environmental Pollution in Ibadan. Ibadan Region, Department of Geography, University of Ibadan, 1982.

Feldman, R. O. M. Deitz and E. F. Brooks: "The Financial viability of Rural Primary Health Care Centres" American - Journal of Public Health, Volume 68, No. 10, October 1978, Page 981.

Finlay, D.: Alcoholism Illness on Problems in Interaction. Sociological abstract, January, 1979, Page 569.

Fischer, C. S.: Urban to Rural Diffusion of Opinions in Contemporary America, "America Journal of Sociology, 84 (July): 151 - 159, 1978.

Frankenberge, R. and J. Leeson: Health in Urban Environment, African Environment, roll No. 4, 1975.

Frank, F. and L. R. Andersons: Effects of tasks and group size upon group productivity and member satisfaction. Sociometry 34, 1971, Page 135 - 194.

Frazier, P. J., J. Jenny, R. A. Bagramian, E. Robinson and J. M. Froshet: Provider Expectations and Consumer Perceptions of the Importance and Values of Dental Care. American Journal of Public Health 67: 37 - 42, 1977.

Gilbert, J. Rural: Theory:- The Grounding of Rural Sociology. Rural Sociology - Volume 47, No. 4, Winter 1966.

Glasgow, R. E. and G. M. Roseu: Behaviour Bibliotherapy: A review of self-help behaviour theraphy manual. Psychological Bulletin No. 85, 1978, Pages 1 - 23.

Grant, J.: Immunisation in Nigeria: Daily Times, November 12, 1984, Page 1.

Hackett, R. I.: Recent Developments in the Healing Concepts and Activities of the Aladura Churches. African Notes, Volume 111, No. 2, 1981, Page 55.

Haythorn, W. W.: The Composition of Groups: A Review of the Literature. Acts Psychological, Volume 28, 1968, Pages 97 - 128.

Health and Nutrition Status Survey. The Health of Nigerians. Federal Office of Statistics Interim Report March 1983.

Henri, M.: Possibilities of Rural Sociologies in the Industrial Society. Sociological abstract, Volume 29/2 June, 1981, Page 529.

Horn, D. A.: Model for the Study of Personal Choice Health Behaviour, International Journal of H Health Education 19, No. 2, 1976, Pages 89, 98.

Hunt, W. A. and D. A. Bespalec: An Evaluation of Current Methods of Modifying Smoking Behaviour Journal of Clinical Psychology, Volume 30, 1974, Pages 431 - 438.

Ifodi, C.: Checking Self Medication, Times Interna, tional, November 26, 1984, Page 11.

Igbeare, F.: Eradicating Malnutrition Here. National Concord, September 26, 1984, Page 3.

Igbeare, F.: Eradicating Malnutrition Here. National Concord, September 27, 1984, Page 3.

Igwe, O. N. B.: Severe Protein Deficiency ... its Social and Educational Implication. Japher Alvana, Vol. 1, No. 1, February, 1984, Page 3.

Ikard, F. F. D. E.: Green and A. Horn: A Scale to Differentiate between Types of Smoking as Related to the Management of Effect. The International Journal of Addicting, Volume 4, 1969, Pages 649 - 659.

Ikponwosa, O. P.: Psychosocial Barriers to Environmental Health Concern. Japher Alvana, Volume 1, No. 1, February, 1984, Page 28.

Ikporukpo, C. O.: Recreation Facilities in Ibadan. Ibadan Region, Department of Geography, University of Ibadan, 1982.

James, H. K. Dongkim and J. A. Christenson: The Effects of Ecological and Socio-economics Status Variables on Membership and Participation in Voluntary Organisation. Rural Sociology 44 (fall) 602 - 612, 1979.

Janis, I. L. and D. Hoffman: Facilitating Effects of Daily Contact between Partners who make a Decision to cut Down on Smoking. Journal of Clinical Psychology, Volume 17, 1971, Pages 25-35

Kilfy, K. M.: Scientific Ideologies and Conceptions of Drinking Behaviour and Alcoholism. Sociological abstract, August, 1969, Page 535.

Kraus, R.: Today's Crisis in Urban Recreation, Journal of Health Physical Education and Recreation 44: 29, June 1973.

Ladejobi, B.: Traditional Healers. Saints or Sinners? Toplife Magazine, March 1982, Page 22.

Lambo, A.: Health System has collapsed. National Concord, September 15, 1984, Page 11.

Lynn, E. J., W. E. Gibbous and B. L. Johnson: The Impact of a Rural Environment on Values. Rural Sociology 44 (Spring) 119 - 136, 1979.

Luft, H. S., J. C. Hershey and J. Morrel: Factors affecting Utilisation of Physician Service in a Rural Community. American Journal of Public Health 1966: 865 - 871, No. 66

Makinde, A.: African Philosophy Culture and Traditional Medicine. National Concord, August 30, 1984; Page 3.

Miller, M. K. and A. E. Luloft: Who is Rural? A Typological Approach to the Examination of Rurality. Rural Sociology, No. 4, Volume 46 Winter 1981, Page 608.

Mohammed, A. B. and Abolghasson, O.: Evolution of Rural Health Care Services in Luan - Report on Vital Statistics in West Azarbanjan: America Journal of Public Health, Vol. 71, No. 7, July, 1981, Page 739.

Mwanalushi, M.: Alcohol The African Experience, World Health, August, 1981.

Najman, J. M., M. Brown, C. Gibbings, G. Cupton, J.G.P. Ryan, M. S. Sheeham, J. S. Western and S. Payne: Patterns of Morbidity, Health Care Utilisation and Socio-economic Status in Brisbane, Australia. Sociological abstract, Volume 29/3, 1981, Page 815.

Nemat, B. O. and J. F. Kraus: Use of Health Services in a Rural Community. Health Services Reports 1973, No. 88, 281 - 283.

Nwokolo, C.: Health Care Delivery in Nigeria - Progress, Problem and Prospection. Daily Times October, 1981, Page 18.

Ogbeigbe, M. I.: Socio-economic Factors in Diseases of Infancy and Childhood. Ghana Medical Journal 129 - 137, January, 1969.

Ogbeigbe, T.: Fighting Infant Mortality with Immunisation. Daily Times. November 6, 1984, Page 5.

Oguntoyinbo, J. S.: The Climatic Characteristics of Ibadan Region - Ibadan Region, Department of Geography, University of Ibadan, 1982.

Olukoya, G. O.: Nigeria Drug Need. National Concord, July 31, 1984, Page 15.

Oikoh, A. J.: The Place of Sex Education in Secondary Schools in Nigeria. Nigerian School Health Journal, Volume 3, No. 1, October 1981, Page 27.

Oshivere, A.: Native Doctors Versus Modern Doctors, Sunday Concord, March 28, 1982, Page 11.

Osiyemi, F. O.: Food Sanitation. Nigeria Journal of the Society of Health, Volume III, No. 1, January, 1968.

Osuntokun, K.: Vaccine for Malaria. Daily Sketch, Monday 12, 1984, Page 7.

Oyediran, M. A.: Utilisation of Medical Facilities in Lagos by Pre-school age Children - Nigerian Medical Journal 4: 63 - 71, 1974.

Pahl, R. E., The rural-urban continum. Sociologia Ruralis 6, (3 - 4): 299 - 329, 1966.

Peek, C. W. and D. L. George: Some Consequences of Community Size for Alcohol Use. Sociological abstract, April, 1978, Page 167.

Renband, K. H.: Defiance Problem and Defination and Institutional Reaction. Result of a trend analysis of excessive alcohol consumption in growth. Sociological abstract, December, 1979, Page 1596.

Rosenstock, I. M.: Historical Origins of the Health Belief Model, Health Education Monographs 2, No. 4, Winter 1974, Pages 328 - 335.

Sene, P. M.: African and the Drug Threat. World Health, December, 1981, Page 13.

Shah, P. K.: Material Nutrition in Deprived Populations. Assignment Children, (UNICEF), Volume 55/56, 1981, Page 50.

Shaw, M. E.: Group Dynamics, Page 97 - 109.

Shops, C. G. and M. Bachar: Rural Area and Personal Health Services Current Strategies. American Journal of Public Health, Vol. 71, No. 1, January, 1981, Page 71.

Soysa, P. E.: The Advantage of Breast Feeding. A Developing Country Point of View. Assignment Children (UNICEF) Volume 55/56, 1981, Page 37.

Stanistar, V. K., C. M. Sidney and A. M. Ann: Health Behaviour, Illness Behaviour and Sick Role Behaviour, Environmental Health, Volume 12, No. 2, February, 1966.

Sunday Concord: Traditional Medicine Practice Under Review, November 25, 1984, Page 1.

Thomas, A. R. Balswick, O. Jack and K. King: A Comparism of the Sexual Attitudes and Behaviour of Rural and Sub-urban Adolescents. Sociology Abstract, Volume 28/1/April, 1980.

Udoh, C. O. and Amusa, L. O.: A Survey of Current Health Habits and Risk Factors that Affect the Life Quality in an Adult Literate Population. P. E. Departmental Seminar, 1983.

Udoh, C. O.: Advice Seeking Patterns of Nigerian Rural Community Inhabitants in Times of Illness. Seminar Paper. Department of P.E. and H.E., University of Ibadan, 1981.

Udoh, C. O.: Is Teenage Pregnancy Syndrome Real? Nigerian School Health Journal, Volume 3, No. 1, October, 1981.

Udoh, C. O.: Nutritional Aspects of Physical Fitness Seminar Paper, 1st National Workshop on Physical Fitness Department of Physical and Health Education, University of Ibadan, 1982.

Udoh, R. K.: Ibadan In Its Regional Setting: Ibadan Region. Department of Geography, University of Ibadan, 1982.

Ugochukwu, I.: Preventive Medicine as cornerstone of Health Care Delivery, National Concord, Dec. 1, 1984, Page 3.

Ugochukwu, I.: Preventive Medicine as cornerstone of Health Delivery (1), National Concord, Nov. 30, 1984, Page 3.

Urban Household Survey conducted by the Federal Ministry of Statistics, Household Survey Units, Lagos. Survey Report, No. LHS/SR/80, 1978

Van, E. S., J. C. and J. E. Brown Junior: The Rural-urban Variable one more - Some Individual Level Observations. Rural Sociology 39 fall - 391; 1974.

Walker, Jr. M. G.: Utilization of Health Care. The Loredo Migrant Experience. American Journal of Public Health, 1979, 69: 667 - 671.

Vobecky, J. A., Kelly and Maunan: Population in Health Care Practices. Canadian Journal of Public Health, 1972, 63: 304 - 305.

Welsch, G.: Smoking Cessation - A New Approach Through Secondary Prevention Strategies in the Federal Republic of Germany, International Journal of Health Education, Vol. XXIII, 1980/4, Page 199.

White Paper on Integrated Rural Development Western Nigeria. Official Document, No. 8 (PO 63.286) 1963.

World Health Organisation Technical Report, Series No. 432, Geneva, 1969.

Woodrow, K., D. W. Hastrings and J. I. Edward: Rural-urban Patterns of Marriage, Rural Sociology Volume 43, No. 1, 1978, Page 70.

Young, M. A. C.: Factors Influencing Utilisation of Health and Medical Care Services and Facilities. Health Education Monographs, 1966, 26: 28 - 35.

BOOKS

Adejumo, M. A.: The Pattern of Treatment Sought by Nigerian Community in Times of Illness - (A Case Study of Oyo Town), M.Ed. Project, University of Ibadan, Department of P.E., 1982.

Anderson, C. L.: Community Health, London, The C.V. Mosby Company, 1973.

Andic, K.: The Individual Society and Health Behaviour, New York, Russel Sage Foundation, 1965.

Ayeni, B.: "Lagos" Problems and Planning in Third World, London, Cities Croom Helm, 1981.

Baker, S.: Health Quackery and Nostrums, School and College Health Education Institute Proceedings, Los Angeles, University of California, 1963.

Benjamin, M. and J. J. Burt: Good Health: Personal and Community, Philadelphia, W. B. Saunders Company, 1972.

Breeze, G.: Urbanisation in Newly Developing Countries, New Jersey, Prentice Hall Incorporation, 1966.

Brooks, S. M. and N. A. Brooks: Turner's Personal and Community Health, London, The C. V. Bosby Company, 1979.

Bucher, C. A.: Foundation of Physical Education, London, The C. V., Mosby Company, 1979.

Byrd, O. E.: Health: Philadelphia, W. B. Saunders Company, 1961.

Candis, G.: Environment and Policy; Bloominghton, Indiana University Press, 1967.

Cape, B. F. and P. Dobson: Bailliere's Nurses Dictionary, New York, The Macmillan Publishing Company, Inc., 1974.

Chapman, C. M.: Sociology For Nurses; London, Spoltiswoode Ballantyne Ltd., 1982.

Dennis. P.: A Textbook of Health Education, Liverpool, C. Tinling and Co. Ltd., 1962.

Doherty, J.: Growing Up, Lagos, Alcanco Publishers Association, 1982.

Eichler, W.: The Customs of Mankind, London, Heinemann Ltd., 1924.

Ellingstand, V and N. W. Heimstra: Methods in the Study of Human Behaviour, California, U.S.A., Books/ Cole Publishing Company, 1974.

Estrade, J.: Life and Health Community Research, California, Medicines Incorporation, 1972.

Evans, E. J.: Tropical Hygiene For Schools, London, Lutterworth Press, 1976.

Festinger, L. and D. Kaatz: Research Methods in the Behaviour Sciences, New York, Holt, Rinehart and Winston Inc., 1966.

Flaxman: Quiting Smoking in Creighead, Kasdm and Mahoney (Eds.) Behaviour Modification Principles Issues and Applications, Boston, Houghton Mifflin, 1976.

Gillman, D.: A Socio Economic Geography, Ireland, Gill and Macmillan, 1974.

Godman, A. and Gutteridge, A. C.: A New Health Science For Africa, London, Longman Group Ltd., 1979.

Grant, F. C.: Infectious Diseases of Today and Tomorrow - Health in Ghana Today and Tomorrow, Accra, Ghana, Ministry of Health, Health Education Division, 1968.

Gronlind, N. E.: Measurement and Evaluation in Teaching, New York, Macmillan Publishing Company, 1976.

Hart, E. and W. Scohrist: Dynamics of Wellness, California, Wardsworth Publishing Company Inc., 1972.

Hershel, D.: Contemporary Adolescent Readings, California, Brooks Cole Publishing Company, 1975.

Houstin, J. C., Joiner, C. L. and J. R. Trounce: A Short Textbook of Medicine, London, English Language Book Society, 1975.

Hughes, D. I. and P. I. Marshall: Tropical Health Science, London, Cambridge University Press, 1974.

Inge and Sten Hegeler: An ABZ of Love, Essex, Anchor Press Ltd., 1969.

Kerlinger, F. M.: Foundations of Behavioural Research, London, Spoltswoode, Ballantyne Ltd., 1979.

Mabogunje, A. C.: Urbanisation in Nigeria, London, University of London Press, 1968.

Mbiti, J. S.: African Religion and Philosophy, London, Morrison and Gibb, 1969.

Mumo, J. O.: Traditional Medicine in Nigeria, Benin City, M.M.C. Press, 1973.

Norchiffe, G. B.: Inferential Statistics for Geographers, London, Hutchinson and Co. (Publisher) Ltd., 1979.

Oberteuffer, D.: School Health Education, New York, Harph and Row Publishing Company, 1982.

O'connor, A. M.: The Geography of Tropical African Development. A Study of Spatal Patterns of Economic Ghange Since Independence, Oxford, Porgaman Press, 1978.

Owon, D. F.: Man's Environmental Predicament. An Introduction to Human Ecology in Tropical Africa, London, Oxford University Press, 1973.

Parker, E. W.: An Introduction to Health Education, London, Macmillan Education Limited, 1977.

Raymond, G. M.: Alcohol Education for Classroom and Community. A Source Book for Education, New York, M.C. Grandhill Book Company, 1964.

Read, M.: Culture, Health and Diseases, London, Tarishook Pub Ltd., 1966.

Ross, H. S. and P. R. Mico: Theory and Practice in Health Education, California, Mayfield Publishing Company, 1980.

Sanders, I. T.: Rural Society, New Jersey, Prentice Hall Inco., 1977.

Sapira, A. V. and E. D. Mitchel: The Theory of Play and Recreation, New York, The Ronald Press Company, 1961.

Schifferes, J. J.: Essentials of Healthier Living, New York, John Wiley and Sons Inc., 1960.

Simpson, G. E.: Yoruba Religion and Medicine in Ibadan, Ibadan, Ibadan University Press, 1980.

Tamayo, P.: Mechanisms of Disease - An Introduction to Pathology, Philadelphia, W.B. Saunders Company, 1977.

Udoh, R. K.: The Human Geography of Tropical Africa, London, Heinemann Education Book, 1982.

Werner, D.: Where There Is No Doctor, London, Macmillan Press Ltd., 1981.

APPENDIX 1

QUESTIONNAIRE

Urbanisation and demographic factors as indices of health behaviour of rural and urban communities in Oyo State, Nigeria.

The purpose of this Questionnaire is to examine the influence of urbanisation and demographic factors on the health behaviour of rural and urban communities in Oyo State, Nigeria.

This project is being carried out in partial fulfilment of the requirement for the award of Ph.D degree in Health Education, University of Ibadan.

Please answer the following questions by writing X in the blanks as indicated.

Your honest answer would be highly appreciated.

PERSONAL DATA

Address: Town/Village.....

1. Educational Status:

   (a) No formal education ☐

   (b) Primary education/can read and write in vernacular only ☐

   (c) Secondary education and above ☐

2. Income:

   (a) Below ₦3,000 per annum/below level 07 salary structure ☐

   (b) ₦3,000 and above per annum/ level of all above in salary structure ☐

3. Age:

   (a) Between 18 - 25 years old ☐

   (b) Between 26 - 44 years old ☐

   (c) 45 years and above ☐

4. Sex:

   (a) Male ☐

   (b) Female ☐

5. Marital Status:

   (a) Single ☐

   (b) Married ☐

AVENUE FOR TREATMENT

6:00 Which of these describes your use of the following as avenues for treatment during on set of illness ?

	(a) Often	(b) Sometimes	(c) Does not
6:1 Modern medicine			
6:2 Native medicine			
6:3 Muslim afa			
6:4 Spiritual church			

During serious/prolonged illness which of these describes to what extent you will accept the following as avenues for treatment?

	(a) Accept-able	(b) Slightly accept-able	(c) Not Accept-able
6:5 Modern medicine			
6:6 Native medicine			
6:7 Muslim afa			
6:8 Spiritual church			

DRUG USE

7:1 During illness do you use drugs for treatment purpose without doctor's recommendation i.e. drugs you feel you know about yourself or those recommended by relative?

(a) Often ▱

(b) Sometimes ▱

(c) Does not ▱

7:2 Do you take drugs to keep you awake i.e. because of something you have to do?

(a) Often ▱
(b) Sometimes ▱
(c) Does not ▱

7:3 Do you take sleeping tablets?

(a) Often ▱
(b) Sometimes ▱
(c) Does not ▱

7:4 Do you take stimulating drugs like dexaphetamins?

(a) Often ▱
(b) Sometimes ▱
(c) Does not ▱

7:5 Do you drink alcohol?

(a) Often ▱
(b) Ocassional ▱
(c) Does not ▱

7:6 If you drink alcohol what type do you drink?

(a) Hard liquor (Gin, Whisky, Ogogoro etc) ▱
(b) Beer (Star, Stout, Harp etc) ▱
(c) Local alcohol (Palm wine etc) ▱

7:7 Do you smoke?

(a) Often ▱
(b) Ocassional ▱
(c) Does not ▱

NUTRITION

8:1 How often do you take dairy products like milk, eggs and cheese?

(a) Does not take
(b) About a fortnight or more
(c) About once in a week
(d) About 2 or 3 times a week
(e) Daily

8:2 How often do you eat animal proteins like meat or fish?

(a) Does not eat
(b) About a fortnight or more
(c) About once in a week
(d) About 2 or 3 times a week
(e) Daily

8:3 How often do you eat plants proteins like beans, melon and groundnut?

(a) Does not eat
(b) About a fortnight or more
(c) About once in a week
(d) About 2 or 3 times a week
(e) Daily

8:4 How often do you take fruits like oranges, pawpaw, mango, banana etc?

(a) Does not take
(b) About a fortnight or more
(c) About once in a week
(d) About 2 or 3 times a week
(e) Daily

8:5 How often do you take carbohydrate foods like bread, rice, hot/cold palp, yam, yam flour, cassava flour etc?

(a) Does not take ☐
(b) About a fortnight or more ☐
(c) About once in a week ☐
(d) About 2 or 3 times a week ☐
(e) Daily ☐

8:6 How often do you eat vegetables?

(a) Does not eat ☐
(b) About a fortnight or more ☐
(c) About once in a week ☐
(d) About 2 or 3 times a week ☐
(e) Daily ☐

8:7 Do you buy food in canteen or from food sellers?

(a) Often ☐
(b) Sometimes ☐
(c) Does not ☐

8:8 If you have had a baby for how long is your baby usually breast-fed?

(a) Baby not breast fed at all ☐
(b) Up to around three months ☐
(c) Up to around six months ☐
(d) Up to around one year ☐
(e) Above one year ☐

APPENDIX 1 (B) YORUBA VERSION OF THE QUESTIONNAIRE

IBEERE

Ibeere lori titobi ilu ati iru awon eniyan ibe gege bi atokun fun ilana ihuwasi to je mo ilera awon ara ilu ni ipinle Oyo.

AKOJO IFARA-ENI HAN

Adiresi: ILU/ABUIE

1. Imo ninu iwe:
   - (a) Aimowee-ko-aimooka ☐
   - (b) Iwe alakoobere TABI eni ti o le ko ti o si le ka ede Yoruba ☐
   - (d) Ile iwe girama tabi ju bee lo ☐
2. Iye owo osu:
   - (a) Owo osu ti ko to egberun mota naira lodun ☐
   - (b) Owo osu to ju egberun meta naira lo lodun ☐
3. Ojo Ori:
   - (a) Odun mejidinlogun si meedogbon ☐
   - (b) Odun merindinlogbon si merinlelogoji ☐
   - (d) Odun marindinlaadota soke ☐
4. Akonbabo?
   - (a) Ako ☐
   - (b) Abo ☐
5. Igbeyawo
   - (a) Apon ☐
   - (b) Eni to ti loko/laya ☐

6. Ona Itoju Ara

Bi ara re ko ba ya ona wo ni o maa n lo ninu awon wonyii?

	Igbakuugba	Eekookan	Rara
6.1 Oogun oobo			
6.2 Oogun eniyan dudu			
6.3 Aafaa			
6.4 Wolii			

Bi o ba ni aare ti o lo, to awon ona ti o le gba toju ara re gege bi o se gba won gbo to

	O se e se	Boo boo	Rara
6.5 Oogun oobo			
6.6 Oogun eniyan dudu			
6.7 Aafaa			
6.8 Wolii			

7.1 Ilo Egboogi

Bi ara re ko ba ya, nje o maa n da oogun lo lai gba imoran dokita?

(a) Igbakuugba ☐

(b) Eekookan ☐

(d) Rara ☐

7.2 Nje o maa n lo oogun ti ki i je ki eniyan sun nitori ise kan tabi omiran

(a) Igbakuugba ☐

(b) Eekookan ☐

(d) Rara ☐

7.3 Njẹ o maa n lo oogun oorun?

(a) Igbakuugba ☐

(b) Eekookan ☐

(d) Rara ☐

7.4 Njẹ o maa n lo oogun adowe? ☐

(a) Igbakuugba ☐

(b) Eekookan ☐

(d) Rara ☐

7.5 Njẹ o n mu oti lile rara?

(a) Igbakuugba ☐

(b) Eekookan ☐

(d) Rara ☐

7.6 Iru oti lile wo ni o maa n mu?

(a) Oti lile - Wisiki, Ogogoro, Jiini ☐

(b) Oti Bia - Sitaa, Sitaotu, Haabu ☐

(d) Oti Ibile- Emu opẹ, Otika, Burukutu ☐

7.7 Se o maa n mu siga?

(a) Nigbakuugba ☐

(b) Eekookan ☐

(d) Rara ☐

OUNJE

8.1 Igba wo ni o maa n jo ounjo bi oyin tabi wara mimu?

(a) Rara ☐

(b) Bii oso moji ati ojo dio ☐

(d) Eokan loso ☐

(e) Eomeji tabi comota loso ☐

(ẹ) Ojoojumo ☐

8.2 Igba wo ni o maa n jo oran tabi eja?

(a) Rara ☐

(b) Bii oso moji ati ojo dio ☐

(d) Eokan loso ☐

(e) Eomeji tabi comota loso ☐

(ẹ) Ojoojumo ☐

8.3 Igba wo ni o maa n jo owa, egusi tabi opa?

(a) Rara ☐

(b) Bii oso moji ati ojo dio ☐

(d) Eokan loso ☐

(e) Eomeji tabi comota loso ☐

(ẹ) Ojoojumo ☐

8.4 Igba wo ni o maa njo oso bii oronbo, mangoro, ati ogodo weero?

(a) Rara ☐

(b) Bii oso moji ati ojo dio ☐

(d) Eokan loso ☐

(e) Eomeji tabi comota loso ☐

(ẹ) Ojoojumo ☐

8.5 Igba wọ ni o maa n jẹ ounjẹ bii burẹdi, irosi, eko mimu tabi jijẹ, amala, ati amala lafun

(a) Rara ☐

(b) Bii ose meji ati ojo dio ☐

(d) Eekan loso ☐

(e) Eemeji tabi eemeta loso ☐

(ẹ) Ojoojumo ☐

8.6 Igba wo lo n je efo tabi obeeyo?

(a) Rara ☐

(b) Bii ose meji ati ojo dio ☐

(d) Eekan lose ☐

(e) Eemeji tabi eemeta loso ☐

(ẹ) Ojoojumo ☐

8.7 Se o maa n da ounje je ni buka kiri ni abi lori onikiri?

(a) Igbakuugba ☐

(b) Eekookan ☐

(d) Rara ☐

8.8 Bi o ba ti bi omọ, o to igba wo ki o too gba oyan lonu ro?

(a) Rara ☐

(b) Bii osu meta ☐

(d) Bii osu mefa ☐

(e) Bii odun kan ☐

(ẹ) Bii odun kan ati osu dio ☐

APPENDIX 2

REMOTE RURAL AND URBAN FRINGED RURAL

	RRR %	UFR %	X^2	D.F.	T.V.	SFL
6.1a	58	44	1.92			
b	35	45	1.5			
c	8	11	0.72			
T.T.			4.14	2	5.991	N/S
6.2a	30	17.6	3.6			
b	36	37	0			
c	34	45	1.8			
T.T.			5.4	2	5.991	N/S
6.3a	6	5	0.1			
b	3	5	0.5			
c	91	89	0.2			
T.T.			0.62	2	5.991	N/S
6.4a	19	7	5.54			
b	7	8	0.06			
c	74	85	0.76			
T.T.			1.44	2	5.991	N/S
6.5a	79	73	0.22			
b	16	20	0.44			
c	5	7	0.34			
T.T.			1	2	5.991	N/S
6.6a	42	31	1.66			
b	24	39	3.58			
c	34	30	0.26			
T.T.			5.5	2	5.991	N/S

	RRR %	UFR %	X^2	D.F.	T.V.	SFL
6.7a	6	12	2			
b	6	6	0			
c	87	83	0.1			
T.T.			2.1	2	5.991	N/S
6.8a	19	17	0.12			
b	8	11	0.48			
c	73	73	0			
T.T.			0.6	2	5.991	N/S
S.T.T.			20.8	23	35.172	N/S
7.1a	35	32	0.14			
b	41	54	1.87			
c	24	14	2.64			
T.T.			4.56	2	5.991	N/S
7.2a	6	4	0.4			
b	19	12	1.6			
c	75	84	0.52			
T.T.			2.52	2	5.991	N/S
7.3a	3	1	0.66			
b	20	11	2.62			
c	77	87	0.62			
T.T.			3.9	2	5.991	N/S
7.4a	2	16	10.8			
b	11	27	6.74			
c	87	57	6.26			
T.T.			23.8	2	5.991	S/F
7.5a	9	16	1.96			
b	43	31	1.94			
c	48	52	0.16			
T.T.			4.06	2	5.991	N/S

	RRR %	UFR %	X^2	D.F.	T.V.	SFL
7.6a	6	2	2.0			
b	58	47	1.16			
c	36	52	2.92			
T.T.			6.08	2	5.991	S/F
7.7a	8	3	2.28			
b	8	6	0.26			
c	85	92	0.28			
T.T.			2.82	2	5.991	N/S
S.T.T.			35.74	20	31.410	S/F
8.1a	9	21	4.8			
b	15	19	0.48			
c	19	10	2.80			
d	42	19	8.68			
e	16	31	4.80			
T.T.			21.56	4	9.488	S/F
8.2a	1.32	-	1.32			
b	-	0.71	0.71			
c	2.65	1.42	0.37			
d	11.26	9.93	1.32			
e	84.77	87.94	0.09			
T.T.			3.81	4	9.488	N/S
8.3a	1.35	2.13	0.18			
b	2.03	9.93	5.22			
c	6.76	9.93	0.6			
d	29.73	29.79	0			
e	60.14	48.22	1.31			
T.T.			7.31	4	9.488	N/S

	RRR %	UFR %	X^2	D.F.	T.V.	SFL
8.4a	1.56	1.91	0.04			
b	10.94	12.10	0.06			
c	21.09	21.66	0			
d	21.09	17.20	0.4			
e	45.31	47.13	0.4			
T.T.			0.9	4	9.488	N/S
8.5a	1.1	-	1.1			
b	1.1	-	1.1			
c	1.1	-	1.1			
d	26.67	9.90	7.68			
e	70	90.14	2.53			
T.T.			13.51	4	9.488	S/F
8.6a	0.75	-	0.75			
b	19.55	1.42	15.7			
c	15.79	5.67	4.77			
d	15.26	12.06	2.67			
e	58.65	80.85	3.53			
T.T.			27.42	4	9.488	S/F
8.7a	10.48	5.07	1.89			
b	59.68	46.38	1.68			
c	29.84	48.55	4.47			
T.T.			8.04	2	5.991	S/F
8.8a	-	-	0			
b	-	2	2			
c	23.29	13	2.93			
d	20.54	25	0.41			
e	56.16	60	0.13			
T.T.			5.47	4	9.488	N/S
S.T.T.			88.02	37	52.192	S/F
G.T.T.			158.92	82	104.13	S/F

APPENDIX 3

PRE-INDUSTRIAL URBAN, INDUSTRIAL URBAN AND METROPOLITAN

	PIU %	IOU %	MTT %	X^2	D.F.	T.V.	SFL
6.1a	48	51	49	0.09			
b	39	37	10	18.30			
c	13	12	41	24.64			
T.T.				43.03	4	9.488	S/F
6.2a	12	19	30	8.11			
b	58	50	32	7.60			
c	30	31	38	1.15			
T.T.				16.86	4	9.488	S/F
6.3a	-	3	9	6.5			
b	6	16	31	17.92			
c	94	81	60	7.51			
T.T.				31.93	4	9.488	S/F
6.4a	3	16	14	8.91			
b	14	12	19	1.74			
c	83	72	67	1.81			
T.T.				11.46	4	9.488	S/F
6.5a	66	80	66	1.85			
b	13	10	22	5.21			
c	21	10	12	4.79			
T.T.				11.85	4	9.488	S/F
6.6a	24	41	31	4.56			
b	37	25	33	2.36			
c	40	34	36	0.50			
T.T.				6.92	4	9.488	H/S

	PIU %	IOU %	MTT %	X^2	D.F.	T.V.	SFL
6.7a	13	12	16	0.63			
b	13	14	17	0.95			
c	75	74	67	0.54			
T.T.				1.76	4	9.488	N/S
6.8a	5	30	21	17.17			
b	18	12	15	1.2			
c	77	58	64	2.85			
T.T.				21.22	4	9.488	S/F
S.T.T.				145.03	46	61.656	S/F
7.1a	3	20	18	12.62			
b	43	46	51	0.69			
c	54	34	31	7.89			
T.T.				19.20	4	9.488	S/F
7.2a	-	4	5	1.66			
b	25	14	27	4.46			
c	75	82	68	1.30			
T.T.				7.42	4	9.488	N/S
7.3a	2	1	5	3.25			
b	32	17	39	8.61			
c	66	82	66	2.40			
T.T.				14.26	4	9.488	S/F
7.4a	2	1	3	1.00			
b	17	7	10	4.66			
c	82	92	87	0.58			
T.T.				6.24	4	9.488	N/S
7.5a	6	6	13	3.92			
b	24	31	35	1.76			
c	70	63	52	2.68			
T.T.				8.36	4	9.488	N/S

	PIU %	IDU %	MTT %	X^2	D.F.	T.V.	SFL
7.6a	5	12	22	11.23			
b	46	54	56	0.85			
c	49	34	22	10.46			
T.T.				22.54	4	9.488	S/F
7.7a	59	2	11	78.25			
b	36	9	16	19.30			
c	5	89	72	61.30			
T.T.				158.85	4	9.488	S/F
S.T.T.				236.87	40	55.75	S/F
8.1a	5	7	13	4.16			
b	12	11	18	2.09			
c	26	17	22	1.87			
d	45	38	25	6.12			
e	11	27	22	7.10			
T.T.				21.34	8	15.507	S/F
8.2a	-	-	9	12.00			
b	3	3	9	4.8			
c	-	-	9	12.00			
d	10	10	20	4.00			
e	87	87	53	10.20			
T.T.				43.00	8	15.507	S/F
8.3a	-	-	10	13.34			
b	4	3	11	6.34			
c	3	10	12	5.37			
d	52	35	38	3.95			
e	41	52	29	5.72			
T.T.				34.72	8	15.507	S/F

	PIU %	IDU %	MTT %	X^2	D.F.	T.V.	SFL
8.4a	-	3	12	10.6			
b	3	10	15	7.8			
c	10	14	26	8.32			
d	70	36	7	53.46			
e	17	36	20	8.58			
T.T.				88.76	8	15.507	S/F
8.5a	-	-	1	0			
b	2	0	8	7.08			
c	2	4	9	5.2			
d	9	18	16	3.13			
e	87	77	66	2.88			
T.T.				18.29	8	15.507	S/F
8.6a	-	1	10	12.86			
b	2	1	10	11.25			
c	-	6	10	4.17			
d	26	26	22	0.43			
e	72	66	48	5.03			
T.T.				33.74	8	15.507	S/F
8.7a	4	16	25	14.81			
b	67	52	45	0.71			
c	29	32	30	0.13			
T.T.				15.65	4	9.488	S/F
8.8a	-	1	11	3.30			
b	3	1	20	27.26			
c	3	13	16	8.68			
d	50	46	21	12.67			
e	44	38	32	1.90			
T.T.				53.81	8	15.507	S/F
S.T.T.				309.31	75	96.21	S/F

APPENDIX 4

WHOLE RURAL AND WHOLE URBAN

	WRR %	WRU %	X^2	D.F.	T.V.	SFL
6.1a	50	51	0			
b	40	40	0			
c	10	10	0			
T.T.			0	2	5.991	N/S
6.2a	24	20	0.36			
b	34	45	1.53			
c	42	35	0.64			
T.T.			2.53	2	5.991	N/S
6.3a	9.1	11	0.20			
b	9.1	21	4.80			
c	81.8	68	1.27			
T.T.			6.27	2	5.991	S/F
6.4a	16	16	0			
b	8	20	5.14			
c	76	64	1.03			
T.T.			6.17	2	5.991	S/F
6.5a	71	66	0.17			
b	16	22	0.95			
c	13	12	0.16			
T.T.			1.28	2	5.991	N/S
6.6a	33	35	0.06			
b	28	29	0.07			
c	40	35	0.33			
T.T.			0.46	2	5.991	N/S

	WRR %	WRU %	X^2	D.F.	T.V.	SFL
6.7a	9	12	0.43			
b	11	26	6.08			
c	80	62	2.28			
T.T.			8.79	2	5.991	S/F
6.8a	15	28	2.81			
b	8	18	3.85			
c	77	54	4.04			
T.T.			10.70	2	5.991	S/F
S.T.T.			36.2	23	35.172	S/F
7.1a	30	26	0.29			
b	41	28	2.45			
c	28	46	4.38			
T.T.			7.12	2	5.991	S/F
7.2a	10	7	0.53			
b	18	23	0.61			
c	72	70	0.03			
T.T.			1.17	2	5.991	N/S
7.3a	17	6	5.26			
b	26	31	0.44			
c	57	62	0.21			
T.T.			5.91	2	5.991	N/S
7.4a	4	5	0.44			
b	24	11	4.83			
c	73	84	0.77			
T.T.			6.04	2	5.991	S/F
7.5a	9	13	0.73			
b	35	34	0.03			
c	56	54	0.04			
T.T.			0.80	2	5.991	N/S

	WRR %	WRU %	X^2	D.F.	T.V.	SFL
7.6a	3	16	8.90			
b	41	55	2.04			
c	56	30	7.86			
T.T.			18.80	2	5.991	S/F
7.7a	5	8	0.69			
b	7	12	1.32			
c	88	80	0.38			
T.T.			2.39	2	5.991	N/S
S.T.T.			42.23	20	31.410	S/F
8.1a	13	8	1.19			
b	18	17	0.08			
c	17	21	0.42			
d	34	33	0.06			
e	18	21	1.75			
T.T.			3.5	4	9.488	N/S
8.2a	1	4	1.8			
b	0	4	4			
c	3	6	1			
d	21	14	1.4			
e	76	71	0.17			
T.T.			8.37	4	9.488	N/S
8.3a	2	3	0.2			
b	9	6	0.6			
c	8	12	0.8			
d	31	41	1.39			
e	50	37	1.94			
T.T.			3.33	4	9.488	N/S

	WRR %	WRU %	X^2	D.F.	T.V.	SFL
8.4a	1	8	5.44			
b	13	14	0.07			
c	22	23	0.02			
d	29	33	0.26			
e	36	23	2.91			
T.T.			8.7	4	9.488	N/S
8.5a	0	2	2			
b	0	4	4			
c	4	5	0.11			
d	27	14	4.12			
e	68	74	0.25			
T.T.			10.48	4	9.488	S/F
8.6a	-	4	4			
b	1	3	1			
c	5	8	0.69			
d	16	26	2.38			
e	79	59	2.90			
T.T.			10.97	4	9.488	S/F
8.7a	5	12	2.88			
b	54	56	0.36			
c	41	32	1.11			
T.T.			4.35	2	5.991	S/F
8.8a	2	7	2.78			
b	13	5	3.56			
c	17	19	0.11			
d	32	36	0.24			
e	35	33	0.0			
T.T.			6.69	4	9.488	N/S
S.T.T.			56.39	37	52?192	S/F
G.T.T.			134.82	82	104.13	S/F

APPENDIX 5

EDUCATION

	NFE %	PRY %	SEC %	X^2	D.F.	T.V.	SFL
6.1a	44	49	67	5.48			
b	43	45	27	5.08			
c	14	6	6	4.92			
T.T.				15.48	4	9.488	S/F
6.2a	26	21	8	9.42			
b	28	39	4	26.07			
c	46	40	52	1.56			
T.T.				37.05	4	9.488	S/F
6.3a	7	6	3	1.62			
b	16	19	12	0.89			
c	76	76	85	0.68			
T.T.				3.19	4	9.488	N/S
6.4a	13	16	14	0.32			
b	13	11	18	1.85			
c	73	73	68	0.24			
T.T.				2.41	4	9.488	N/S
6.5a	70	74	76	0.13			
b	22	21	10	5.02			
c	7	5	14	4.98			
T.T.				10.13	4	9.488	S/F
6.6a	45	35	22	7.83			
b	27	31	33	0.61			
c	28	33	46	4.84			
T.T.				13.28	4	9.488	S/F

	NFE %	PRY %	SEC %	X^2	D.F.	T.V.	SFL
6.7a	13	11	11	0.23			
b	14	15	10	1.08			
c	73	74	79	0.27			
T.T.				1.58	4	9.488	N/S
6.8a	22	21	20	0.1			
b	10	16	14	0.37			
c	69	63	66	0.28			
T.T.				0.75	4	9.488	N/S
S.T.T.				83.87	46	61.656	S/F
7.1a	33	25	16	5.87			
b	41	52	81	14.72			
c	27	23	41	4.85			
T.T.				25.74	4	9.488	S/F
7.2a	4	6	2	2.00			
b	21	17	20	0.42			
c	75	78	78	0.08			
T.T.				2.50	4	9.488	N/S
7.3a	2	2	3	0.29			
b	17	22	23	1.09			
c	81	76	74	0.34			
T.T.				1.62	4	9.488	N/S
7.4a	7	2	2	4.54			
b	15	10	8	2.37			
c	79	87	90	0.76			
T.T.				7.67	4	9.488	S/F
7.5a	15	17	11	1.27			
b	29	26	52	11.35			
c	56	57	72	2.60			
T.T.				15.22	4	9.488	S/F

	NFE %	PRY %	SEC %	X^2	D.F.	T.V.	SFL
7.6a	17	16	14	0.22			
b	50	52	61	1.27			
c	40	31	25	3.56			
T.T.				5.05	4	9.488	N/S
7.7a	10	18	1	14.96			
b	11	18	10	2.92			
c	79	82	89	0.64			
T.T.				28.52	4	9.488	S/F
S.T.T.				86.32	40	55.70	S/F
8.1a	19	13	11	2.41			
b	23	19	15	1.68			
c	29	20	20	2.35			
d	26	27	32	0.73			
e	19	21	22	0.22			
T.T.				7.39	8	25.507	N/S
8.2a	8	8	4	1.47			
b	7	11	2	3.91			
c	12	5	5	4.46			
d	25	13	20	3.77			
e	48	63	70	4.19			
T.T.				17.8	8	15.507	S/F
8.3a	6	6	4	0.5			
b	10	8	6	1.0			
c	12	10	8	0.8			
d	30	32	44	3.25			
e	42	43	38	0.34			
T.T.				5.89	8	15.507	N/S

	NFE %	PRY %	SEC %	X^2	D.F.	T.V.	SFL
8.4a	10	13	6	2.55			
b	22	17	12	2.94			
c	18	19	20	0.1			
d	26	21	32	2.30			
e	24	30	30	0.84			
T.T.				8.73	8	15.507	N/S
8.5a	2	4	4	0.80			
b	3	8	4	1.2			
c	4	5	7	0.87			
d	14	22	24	2.8			
e	77	60	61	2.76			
T.T.				17.16	8	15.507	S/F
8.6a	8	9	2	4.52			
b	9	9	6	0.75			
c	6	9	11	1.46			
d	14	13	25	5.01			
e	63	59	55	0.54			
T.T.				12.28	8	15.507	N/S
8.7a	15	26	11	6.96			
b	43	50	52	0.93			
c	38	21	36	5.45			
T.T.				13.29	4	9.488	S/F
8.8a	4	12	9	3.91			
b	9	15	13	1.84			
c	15	13	20	1.62			
d	31	32	27	0.46			
e	41	27	32	3.01			
T.T.				10.84	8	15.503	N/S
S.T.T.				93.38	75	96.21	N/S
G.T.T.				263.57	164	194.81	S/F

APPENDIX 6

INCOME

	LOW %	HIGH %	X^2	D.F.	T.V.	SFL
6.1a	45	59	1.88			
b	46	33	2.14			
c	9	7	0.25			
T.T.			4.27	2	5.991	N/S
6.2a	20	19	0.03			
b	43	45	0.05			
c	36	36	0			
T.T.			0.08	2	5.991	N/S
6.3a	12	19	1.58			
b	15	14	0.03			
c	74	67	0.35			
T.T.			1.96	2	5.991	N/S
6.4a	18	25	1.14			
b	15	24	2.08			
c	68	51	2.42			
T.T.			5.64	2	5.991	S/F
6.5a	69	68	0			
b	19	15	0.47			
c	12	17	0.86			
T.T.			1.33	2	5.991	N/S
6.6a	36	29	0.75			
b	29	33	0.26			
c	35	38	0.12			
T.T.			1.13	2	5.991	N/S

	LOW %	HIGH%	X^2	D.F.	T.V.	SFL
6.7a	16	20	0.44			
b	19	17	0.11			
c	65	62	0.07			
T.T.			0.62	2	5.991	N/S
6.8a	21	33	2.67			
b	13	22	2.31			
c	66	46	3.57			
T.T.			8.55	2	5.991	S/F
S.T.T.			23.58	23	35.172	N/S
7.1a	23	19	0.39			
b	46	47	0.01			
c	32	35	0.13			
T.T.			0.53	2	5.991	N/S
7.2a	10	11	0.05			
b	23	21	0.09			
c	67	69	0.03			
T.T.			0.17	2	5.991	N/S
7.3a	3	14	7.12			
b	23	38	3.69			
c	74	48	5.54			
T.T.			16.35	2	5.991	S/F
7.4a	4	19	9.78			
b	49	18	14.34			
c	47	63	2.33			
T.T.			26.45	2	5.991	S/F
7.5a	13	20	1.48			
b	31	33	0.06			
c	56	47	0.79			
T.T.			2.33	2	5.991	N/S

	LOW %	HIGH%	X^2	D.F.	T.V.	SFL
7.6a	14	26	3.6			
b	50	54	0.15			
c	31	19	5.25			
T.T.			9.00	2	5.991	S/F
7.7a	7	8	0.07			
b	12	16	0.5			
c	82	75	0.31			
T.T.			0.88	2	5.991	N/S
S.T.T.			55.71	20	31.410	S/F
8.1a	13	8	1.19			
b	21	9	4.8			
c	19	28	1.72			
d	28	35	0.78			
e	18	20	0.11			
T.T.			8.6	4	9.488	N/S
8.2a	8	7	0.07			
b	6	5	0.09			
c	9	7	0.25			
d	14	13	0.04			
e	64	70	0.27			
T.T.			0.72	4	9.488	N/S
8.3a	2	13	3.6			
b	7	10	0.53			
c	13	11	0.17			
d	33	35	0.06			
e	45	32	2.19			
T.T.			6.55	4	9.488	N/S

	LOW %	HIGH %	X^2	D.F.	T.V.	SFL
8.4a	7	8	0.07			
b	13	28	5.49			
c	22	11	1.83			
d	30	31	0.02			
e	28	22	0.72			
T.T.			8.13	4	9.488	N/S
8.5a	6	4	0.4			
b	3	8	3			
c	8	10	0.22			
d	10	10	0			
e	73	68	0.18			
T.T.			3.80	4	9.488	N/S
8.6a	3	9	3			
b	7	17	4.17			
c	15	11	0.62			
d	24	12	2.94			
e	52	51	0			
T.T.			10.73	4	9.488	N/S
8.7a	12	14	0.15			
b	53	52	0			
c	35	35	0			
T.T.			0.15	2	5.991	N/S
8.8a	13	7	1.8			
b	8	14	1.64			
c	19	15	0.47			
d	36	38	0.05			
e	34	27	0.8			
T.T.			4.76	4	9.488	N/S
S.T.T.			34.84	37	52.192	N/S
G.T.T.			114.13	82	104.13	S/F

APPENDIX 7

AGE

	YAD %	MAD %	OAD %	X^2	D.F.	T.V.	SFL
6.1a	45	48	58	1.85			
b	41	38	28	3.59			
c	11	14	14	0.46			
T.T.				5.90	4	9.488	N/S
6.2a	13	15	28	7.12			
b	55	56	45	1.42			
c	32	29	27	0.41			
T.T.				8.95	4	9.488	N/S
6.3a	21	10	12	4.79			
b	14	15	14	0.03			
c	65	75	74	1.85			
T.T.				6.67	4	9.488	N/S
6.4a	14	21	13	2.37			
b	20	12	15	2.11			
c	66	67	72	0.31			
T.T.				4.79	4	9.488	N/S
6.5a	58	69	64	0.95			
b	30	19	16	5.02			
c	12	12	20	2.91			
T.T.				8.88	4	9.488	N/S
6.6a	33	27	37	1.57			
b	28	32	30	0.26			
c	39	41	34	0.69			
T.T.				2.42	4	9.488	N/S

	YAD %	MAD %	OAD %	X^2	D.F.	T.V.	SFL
6.7a	25	15	11	6.12			
b	17	12	14	0.88			
c	58	73	75	2.52			
T.T.				9.52	4	9.488	N/S
6.8a	21	22	17	2.83			
b	14	16	24	1.98			
c	65	62	59	0.3			
T.T.				5.11	4	9.488	N/S
S.T.T.				52.24	46	61.656	N/S
7.1a	21	28	26	1.04			
b	48	46	40	0.78			
c	31	30	34	0.27			
T.T.				2.09	4	9.488	N/S
7.2a	8	3	10	4.72			
b	26	21	15	2.94			
c	65	77	75	1.14			
T.T.				8.80	4	9.488	N/S
7.3a	6	5	6	0.12			
b	23	23	29	0.96			
c	70	72	64	0.51			
T.T.				1.59	4	9.488	N/S
7.4a	13	12	18	1.44			
b	15	17	15	0.17			
c	72	71	66	0.3			
T.T				0.91	4	9.488	N/S
7.5a	17	16	21	0.71			
b	23	31	29	0.25			
c	60	52	50	1.44			
T.T.				2.40	4	9.488	N/S

	YAD %	MAD %	OAD %	X^2	D.F.	T.V.	SFL
7.6a	20	20	13	1.85			
b	41	47	52	1.3			
c	39	32	36	0.69			
T.T.				3.84	4	9.488	N/S
7.7a	25	7	17	9.96			
b	28	13	14	7.63			
c	47	80	69	8.64			
T.T.				26.23	4	9.488	S/F
S.T.T.				45.86	40	55.70	N/S
8.1a	9	11	25	10.14			
b	24	15	17	6.82			
c	18	18	22	0.5			
d	27	38	19	9.65			
e	22	18	15	1.34			
T.T.				28.45	8	15.507	S/F
8.2a	2	3	4	0.66			
b	6	4	8	1.33			
c	4	6	6	0.5			
d	19	12	16	1.57			
e	68	76	65	0.93			
T.T.				4.99	8	15.507	N/S
8.3a	2	2	8	6.0			
b	7	7	11	1.29			
c	17	14	16	0.29			
d	36	36	38	0.07			
e	38	41	27	3.07			
T.T.				10.72	8	15.507	N/S

	YAD %	MAD %	OAD %	X^2	D.F.	T.V.	SFL
8.4a	5	6	10	3.0			
b	14	14	14	0			
c	21	19	34	5.38			
d	32	33	24	1.63			
e	28	28	19	2.76			
T.T.				12.77	8	15.507	N/S
8.5a	1	3	3	1.15			
b	7	3	4	2.73			
c	8	6	12	2.15			
d	18	17	33	5.81			
e	66	72	47	5.52			
T.T.				17.36	8	15.507	S/F
8.6a	4	4	4	0			
b	6	5	12	3.73			
c	13	13	13	0			
d	23	21	23	0.12			
e	54	57	47	1.0			
T.T.				4.85	8	15.507	N/S
8.7a	19	12	12	2.28			
b	52	60	44	2.46			
c	30	28	44	4.53			
T.T.				9.27	4	9.488	N/S
8.8a	5	4	10	3.27			
b	5	5	10	2.49			
c	22	18	8	6.5			
d	33	37	27	1.57			
e	34	36	45	1.79			
T.T.				15.62	8	15.503	S/F
S.T.T.				104.03	75	96.21	S/F
G.T.T.				202.13	164	194.81	S/F

APPENDIX 8

SEX

	ML %	FL %	X^2	D.F.	T.V.	SFL
6.1a	48	39	0.93			
b	44	48	0.17			
c	7	12	1.32			
T.T.			2.42	2	5.991	N/S
6.2a	26	17	1.88			
b	45	40	0.29			
c	30	43	2.32			
T.T.			4.49	2	5.991	N/S
6.3a	12	6	1			
b	18	16	0.12			
c	69	78	0.55			
T.T.			1.67	2	5.991	N/S
6.4a	15	17	0.03			
b	17	17	0			
c	68	67	0			
T.T.			0.03	2	5.991	N/S
6.5a	69	67	0			
b	21	19	0.03			
c	10	15	1			
T.T.			1.03	2	5.991	N/S
6.6a	38	31	0.71			
b	31	27	0.28			
c	31	42	1.66			
T.T.			2.65	2	5.991	N/S

	ML %	FL %	X^2	D.F.	T.V.	S.F.L.
6.7a	13	11	0.17			
b	16	13	0.31			
c	71	76	0.17			
T.T.			0.65	2	5.991	N/S
6.8a	20	28	1.33			
b	15	15	0			
c	65	57	0.52			
T.T.			1.85	2	5.991	N/S
S.T.T.			14.79	23	35.172	N/S
7.1a	30	26	0.29			
b	31	34	0.14			
c	39	40	0.01			
T.T.			0.44	2	5.991	N/S
7.2a	10	5	1.67			
b	24	19	0.58			
c	65	76	0.86			
T.T.			3.11	2	5.991	N/S
7.3a	9	9	0			
b	28	31	0.15			
c	63	59	0.13			
T.T.			0.28	2	5.991	N/S
7.4a	8	1	5.44			
b	20	9	4.17			
c	73	90	1.77			
T.T.			11.38	2	5.991	S/F
7.5a	17	8	3.24			
b	44	24	5.88			
c	40	71	8.66			
T.T.			17.78	2	5.991	S/F

	ML %	FL %	X^2	D.F.	T.V.	S.F.L.
7.6a	7	19	5.54			
b	44	38	0.44			
c	49	43	0.39			
T.T.			6.37	2	5.991	S/F
7.7a	11	10	6.23			
b	18	3	10.71			
c	71	89	2.25			
T.T.			19.19	2	5.991	S/F
S.T.T.			58.55	20	31.410	S/F
8.1a	12	7	1.14			
b	21	15	1			
c	19	20	0.03			
d	32	34	0.06			
e	16	24	1.16			
T.T.			3.39	4	9.488	N/S
8.2a	4	2	0.67			
b	5	1	2.67			
c	6	5	0.09			
d	15	17	0.13			
e	71	74	0.66			
T.T.			3.62	4	9.488	N/S
8.3a	3	3	0			
b	7	7	0			
c	11	11	0			
d	38	37	0.01			
e	40	43	0.11			
T.T.			0.12	4	9.488	N/S

	ML %	FL %	X^2	D.F.	T.V.	S.F.L.
8.4a	7	6	0.08			
b	16	13	0.31			
c	26	21	0.53			
d	26	32	0.62			
e	26	29	0.16			
T.T.			1.70	4	9.488	N/S
8.5a	1	2	0.33			
b	3	2	0.2			
c	7	3	1.6			
d	21	17	0.42			
e	68	76	0.44			
T.T.			2.99	4	9.488	N/S
8.6a	3	2	0.2			
b	2	2	0			
c	8	6	0.29			
d	22	25	0.19			
e	64	65	0			
T.T.			0.68	4	9.488	N/S
8.7a	15	5	5			
b	59	52	0.44			
c	25	43	4.77			
T.T.			10.21	2	5.991	S/F
8.8a	7	4	0.82			
b	9	7	0.25			
c	15	20	0.71			
d	34	35	0.01			
e	35	33	0.06			
T.T.			1.85	4	9.488	N/S
S.T.T.			24.56	37	52.192	N/S
G.T.T.			99.70	82	104.13	N/S

APPENDIX 9

MARITAL STATUS

	SGL %	MRD %	X^2	D.F.	T.V.	S.F.L.
6.1a	59.75	47.71	1.35			
b	31.35	43.29	1.9			
c	8.89	9	0			
T.T.			3.25	2	5.991	N/S
6.2a	17.53	20.76	0.23			
b	47.40	43.61	0.1			
c	35.06	35.62	0.01			
T.T.			0.34	2	5.991	N/S
6.3a	8.24	6.01	0.29			
b	15.05	16.66	0.31			
c	76.70	73.31	0			
T.T.			0.42	2	5.991	N/S
6.4a	12.33	14.15	0.15			
b	20.89	10.26	3.90			
c	66.78	75.58	0.57			
T.T.			4.62	2	5.991	N/S
6.5a	81.04	65.95	1.53			
b	13.39	22.16	2.31			
c	5.55	11.88	1			
T.T.			4.84	2	5.991	N/S
6.6a	35.21	28.94	0.56			
b	33.22	33.62	0.01			
c	31.56	37.43	0.36			
T.T.			0.93	2	5.991	N/S

	SGL %	IRD %	X^2	D.F.	T.V.	S.F.L.
6.7a	15.64	14.64	0.03			
b	11.17	18.76	3.33			
c	73.18	66.59	0.26			
T.T.			3.62	2	5.991	N/S
6.8a	21.20	15.05	1			
b	15.54	20.79	0.68			
c	63.25	64.16	0			
T.T.			1.68	2	5.991	N/S
S.T.T.			19.7	23	35.172	N/S
7.1a	16.96	19.30	0.11			
b	41.04	30.26	1.70			
c	41.96	50.43	0.7			
T.T.			2.51	2	5.991	N/S
7.2a	6.12	5.52	0			
b	29.25	18.73	2.08			
c	64.63	75.75	0.86			
T.T.			2.94	2	5.991	N/S
7.3a	12.35	5.03	2.88			
b	24.20	24.68	0			
c	62.95	70.29	0.37			
T.T.			3.45	2	5.991	N/S
7.4a	13.54	6.80	2.33			
b	15.56	14.71	0.03			
c	70.89	78.48	0.43			
T.T.			2.79	2	5.991	N/S
7.5a	11.26	13	0.04			
b	31.69	30.93	0.06			
c	57.04	56.06	0			
T.T.			0.10	2	5.991	N/S

	SGL %	MRD %	X^2	D.F.	T.V.	S.F.L.
7.6a	11.11	13.94	0.36			
b	65.35	55.78	0.67			
c	23.52	30.27	0.67			
T.T.			1.70	2	5.991	N/S
7.7a	7.06	7.84	0.07			
b	12.01	7.84	1.19			
c	80.91	84.30	0.05			
T.T.			1.24	2	5.991	N/S
S.T.T.			14.73	20	31.410	N/S
8.1a	6.89	12.48	1.8			
b	12.93	18.87	1.13			
c	21.25	17.38	0.48			
d	33.90	32.98	0.02			
e	25	18.27	0.57			
T.T.			3.94	4	9.448	N/S
8.2a	1.86	2.22	0			
b	3.42	1.88	0.2			
c	5.29	4.44	0.11			
d	13.39	17.09	0.29			
e	76.01	74.35	0.03			
T.T.			0.06	4	9.488	N/S
8.3a	1.98	3.09	0.02			
b	6.68	7.22	0			
c	11.38	11.53	0.04			
d	39.10	40.27	0.01			
e	40.48	37.86	0.11			
T.T.			0.36	4	9.488	N/S

	SGL %	MRD %	X^2	D.F.	T.V.	S.F.L.
8.4a	2.87	4.97	0.5			
b	14.39	12.68	0.04			
c	23.29	21.34	0.09			
d	33.41	31.46	0.01			
e	28.01	29.53	0.07			
T.T.			0.21	4	9.488	N/S
8.5a	5.67	2.82	1			
b	5.15	3.99	0.11			
c	44.89	3.16	0.5			
d	13.65	13.31	0.04			
e	70.61	76.70	0.24			
T.T.			1.89	4	9.488	N/S
8.6a	2.09	3.27	0.2			
b	3.14	3.68	0.14			
c	9.94	11.06	0.05			
d	24.08	27.45	0.31			
e	60.13	54.50	0.31			
T.T.			1.01	4	9.488	N/S
8.7a	12.11	8.22	0.8			
b	62.28	50.98	1.07			
c	25.60	40.78	3.73			
T.T.			4.88	2	5.991	N/S
8.8a	8.42	3.50	1.33			
b	10.52	6.23	1.47			
c	17.89	16.37	0.12			
d	30.52	34.50	0.24			
e	32.63	39.37	0.55			
T.T.			3.71	4	9.488	N/S
S.T.T.			17.13	37	52.192	N/S
G.T.T.			51.56	82	104.13	N/S

Key to Appendix 2 - 9

X^2	-	Chisquare
DF	-	Degree of freedom
TV	-	Table Value
SFL	-	Significant level
N/S	-	Not significant
S/F	-	Significant
RRR	-	Remote Rural Communities
UFR	-	Urban Fringed Rural Communities
PIU	-	Pre-industrial urban
IDU	-	Industrial urban
MTT	-	Metropolitan urban
WRR	-	Whole rural group
WRU	-	Whole urban group
NFE	-	No formal education group
PRY	-	Primary education group
SEC	-	Secondary Education group
LOW	-	Low income group
HIGH	-	High income group
YAD	-	Young adult
MAD	-	Middle adult
OAD	-	Old adult
SGL	-	Single group

MRD	-	Married group
ML	-	Male group
FL	-	Female group
T.T.	-	Total X^2 value of each question
S.T.T.	-	Sum total X^2 value of each health behaviour area.
G.T.T.	-	Grand total X^2 value of health behaviour